ANALYTICAL REPORT

Job Number: 280-137848-1

Job Description: Cornhusker (CHAAP)

For:
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3800 Centerpoint Drive, Suite 520
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Attention: Corey Schwabenlander

Approved for release.
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7/9/2020 4:54 AM

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The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

CASE NARRATIVE

Client: Brice Environmental Services, Corp

Project: Cornhusker (CHAAP)

Report Number: 280-137848-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 6/19/2020 9:15 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

DISSOLVED GASES (GC)
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 06/22/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITROAROMATICS AND NITRAMINES (HPLC)
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 06/23/2020 and analyzed on 07/02/2020 and 07/03/2020.

The %RPD between the primary and confirmation column exceeded 40% for 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, HMX and RDX for the following samples: PZ018-20A (280-137848-1) and G0090-20A (280-137848-2). The results from both columns has been reported and qualified in accordance with the laboratory's QAS.

The continuing calibration verification (CCV) associated with batch 280-501007 recovered outside acceptance criteria, low biased, for o-Nitrotoluene(15%D) at -19.3%D and Nitrobenzene(15%D) at -16.8%D. Associated samples were not run after the CCV. CCV bracketing the sample recovered within %D limit. Associated samples were ND for the analyte.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 06/22/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 06/23/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/28/2020 and analyzed on 06/29/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN
Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 06/28/2020.

Sample PZ018-20A (280-137848-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 06/22/2020.

Sulfide was detected in method blank MB 280-499634/2-A at a level that was below half the LOQ. The value should be considered an estimate, and has been flagged J.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)

Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for anions (28 days) in accordance with 9056A. The samples were analyzed on 07/02/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON

Samples PZ018-20A (280-137848-1) and G0090-20A (280-137848-2) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 07/03/2020.

The following samples were filtered and preserved at the bench using sulfuric acid to bring their pH to <2, prior to analysis: PZ018-20A (280-137848-1) and G0090-20A (280-137848-2)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Client Sample ID: PZ018-20A — Lab Sample ID: 280-137848-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene	0.28	M J1	0.12	0.11	0.055	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	2.2	J1	0.12	0.11	0.055	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	0.17	M J1	0.16	0.13	0.063	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	3.1	M J1	0.16	0.13	0.063	ug/L	1		8330A	Total/NA
HMX	0.89	M J1	0.23	0.22	0.095	ug/L	1		8330A	Total/NA
HMX	0.11	J M J1	0.23	0.22	0.095	ug/L	1		8330A	Total/NA
RDX	1.0	M	0.23	0.22	0.056	ug/L	1		8330A	Total/NA
Nitrate Nitrite as N	26		0.50	0.25	0.095	mg/L	5		353.2	Total/NA
Sulfate	67		5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	96		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	4.0		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0090-20A — Lab Sample ID: 280-137848-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene	2.4	J1	0.12	0.11	0.054	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	0.28	M J1	0.12	0.11	0.054	ug/L	1		8330A	Total/NA
RDX	0.45	J1	0.22	0.21	0.055	ug/L	1		8330A	Total/NA
RDX	1.0	M J1	0.22	0.21	0.055	ug/L	1		8330A	Total/NA
Ammonia	0.026	J	0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	3.1		0.10	0.050	0.019	mg/L	1		353.2	Total/NA
Sulfate	120		5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	280		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.6		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Client Sample ID: PZ018-20A

Lab Sample ID: 280-137848-1

Date Collected: 06/16/20 15:15
Date Received: 06/19/20 09:15

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0020	U	0.0050	0.0020	0.00063	mg/L		06/22/20 18:38	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U M	0.23	0.22	0.091	ug/L		07/02/20 23:30	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		07/02/20 23:30	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		07/02/20 23:30	1
2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030	ug/L		07/02/20 23:30	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043	ug/L		07/02/20 23:30	1
2-Amino-4,6-dinitrotoluene	**0.28**	**M J1**	0.12	0.11	0.055	ug/L		07/02/20 23:30	1
2-Amino-4,6-dinitrotoluene	**2.2**	**J1**	0.12	0.11	0.055	ug/L		07/03/20 12:03	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.093	ug/L		07/02/20 23:30	1
3-Nitrotoluene	0.43	U M	0.43	0.43	0.21	ug/L		07/02/20 23:30	1
4-Amino-2,6-dinitrotoluene	**0.17**	**M J1**	0.16	0.13	0.063	ug/L		07/02/20 23:30	1
4-Amino-2,6-dinitrotoluene	**3.1**	**M J1**	0.16	0.13	0.063	ug/L		07/03/20 12:03	1
4-Nitrotoluene	0.43	U M	0.44	0.43	0.11	ug/L		07/02/20 23:30	1
HMX	**0.89**	**M J1**	0.23	0.22	0.095	ug/L		07/02/20 23:30	1
HMX	**0.11**	**J M J1**	0.23	0.22	0.095	ug/L		07/03/20 12:03	1
MNX	0.43	U	2.2	0.43	0.17	ug/L		07/02/20 23:30	1
Nitrobenzene	0.22	U	0.23	0.22	0.099	ug/L		07/02/20 23:30	1
RDX	**1.0**	**M**	0.23	0.22	0.056	ug/L		07/02/20 23:30	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		07/02/20 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*	*M*	*83 - 119*	*06/23/20 10:47*	*07/02/20 23:30*	*1*
1,2-Dinitrobenzene	*92*		*83 - 119*	*06/23/20 10:47*	*07/03/20 12:03*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.022	mg/L		06/23/20 14:05	1
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/29/20 20:46	1
Nitrate Nitrite as N	**26**		0.50	0.25	0.095	mg/L		06/28/20 19:00	5
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/22/20 12:04	1
Sulfate	**67**		5.0	2.5	1.0	mg/L		07/02/20 22:14	1
Total Alkalinity as CaCO3	**96**		10	10	3.1	mg/L		06/22/20 17:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**4.0**		1.0	1.0	0.35	mg/L		07/03/20 14:58	1

Client Sample ID: G0090-20A

Lab Sample ID: 280-137848-2

Date Collected: 06/16/20 14:55
Date Received: 06/19/20 09:15

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0020	U	0.0050	0.0020	0.00063	mg/L		06/22/20 18:55	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.090	ug/L		07/03/20 12:38	1

Client Sample Results

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Client Sample ID: G0090-20A

Date Collected: 06/16/20 14:55
Date Received: 06/19/20 09:15

Lab Sample ID: 280-137848-2

Matrix: Water

Method: 8330A - Nitroaromatics and Nitramines (HPLC) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039	ug/L		07/02/20 23:07	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		07/03/20 12:38	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		07/02/20 23:07	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043	ug/L		07/02/20 23:07	1
2-Amino-4,6-dinitrotoluene	**2.4**	**J1**	0.12	0.11	0.054	ug/L		07/02/20 23:07	1
2-Amino-4,6-dinitrotoluene	**0.28**	**M J1**	0.12	0.11	0.054	ug/L		07/03/20 12:38	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.091	ug/L		07/02/20 23:07	1
3-Nitrotoluene	0.43	U	0.43	0.43	0.21	ug/L		07/02/20 23:07	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		07/03/20 12:38	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		07/03/20 12:38	1
HMX	0.21	U	0.22	0.21	0.093	ug/L		07/02/20 23:07	1
MNX	0.43	U M	2.1	0.43	0.16	ug/L		07/02/20 23:07	1
Nitrobenzene	0.21	U	0.22	0.21	0.097	ug/L		07/03/20 12:38	1
RDX	**0.45**	**J1**	0.22	0.21	0.055	ug/L		07/02/20 23:07	1
RDX	**1.0**	**M J1**	0.22	0.21	0.055	ug/L		07/03/20 12:38	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		07/02/20 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*96*	*M*	*83 - 119*	*06/23/20 10:47*	*07/02/20 23:07*	*1*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*06/23/20 10:47*	*07/03/20 12:38*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.026**	**J**	0.10	0.050	0.022	mg/L		06/23/20 14:07	1
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/29/20 20:47	1
Nitrate Nitrite as N	**3.1**		0.10	0.050	0.019	mg/L		06/28/20 19:02	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/22/20 12:04	1
Sulfate	**120**		5.0	2.5	1.0	mg/L		07/02/20 23:06	1
Total Alkalinity as CaCO3	**280**		10	10	3.1	mg/L		06/22/20 17:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.6**		1.0	1.0	0.35	mg/L		07/03/20 15:21	1

Default Detection Limits

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	LOQ	DL	Units
Methane	0.0050	0.00063	mg/L

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	0.21	0.084	ug/L
1,3-Dinitrobenzene	0.11	0.037	ug/L
2,4,6-Trinitrotoluene	0.11	0.045	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-Dinitrotoluene	0.10	0.040	ug/L
2-Amino-4,6-dinitrotoluene	0.11	0.051	ug/L
2-Nitrotoluene	0.21	0.086	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.15	0.058	ug/L
4-Nitrotoluene	0.41	0.10	ug/L
HMX	0.21	0.088	ug/L
MNX	2.0	0.15	ug/L
Nitrobenzene	0.21	0.091	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Nitrate Nitrite as N	0.10	0.019	mg/L
Sulfate	5.0	1.0	mg/L
Total Alkalinity as CaCO3	10	3.1	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Total Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: 9030B

Analyte	LOQ	DL	Units
Sulfide	4.0	0.79	mg/L

General Chemistry - Dissolved

Analyte	LOQ	DL	Units
Dissolved Organic Carbon - Quad	1.0	0.35	mg/L

Surrogate Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-137848-1	PZ018-20A	101 M
280-137848-2	G0090-20A	96 M
LCS 280-499740/2-A	Lab Control Sample	101
LCS 280-499740/4-A	Lab Control Sample	105
LCSD 280-499740/3-A	Lab Control Sample Dup	98
LCSD 280-499740/5-A	Lab Control Sample Dup	104 M
MB 280-499740/1-A	Method Blank	105

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-137848-1	PZ018-20A	92
280-137848-2	G0090-20A	93 M

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-499633/4
Matrix: Water
Analysis Batch: 499633

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0020	U	0.0050	0.0020	0.00063	mg/L		06/22/20 11:56	1

Lab Sample ID: LCS 280-499633/2
Matrix: Water
Analysis Batch: 499633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.0730	0.0797		mg/L		109	73 - 125

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-499740/1-A
Matrix: Water
Analysis Batch: 500850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499740

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		07/02/20 07:03	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		07/02/20 07:03	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		07/02/20 07:03	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		07/02/20 07:03	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		07/02/20 07:03	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		07/02/20 07:03	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		07/02/20 07:03	1
3-Nitrotoluene	0.40	U M	0.40	0.40	0.20	ug/L		07/02/20 07:03	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		07/02/20 07:03	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		07/02/20 07:03	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		07/02/20 07:03	1
MNX	0.40	U	2.0	0.40	0.15	ug/L		07/02/20 07:03	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		07/02/20 07:03	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		07/02/20 07:03	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		07/02/20 07:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*105*		*83 - 119*	*06/23/20 10:47*	*07/02/20 07:03*	*1*

Lab Sample ID: LCS 280-499740/2-A
Matrix: Water
Analysis Batch: 500850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499740

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trinitrobenzene	2.00	2.42		ug/L		121	73 - 125
1,3-Dinitrobenzene	2.00	2.27		ug/L		113	78 - 120
2,4,6-Trinitrotoluene	2.00	2.35		ug/L		118	71 - 123
2,4-Dinitrotoluene	2.00	2.11		ug/L		106	78 - 120
2,6-Dinitrotoluene	2.00	2.22		ug/L		111	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	2.01		ug/L		100	79 - 120
2-Nitrotoluene	2.00	1.84		ug/L		92	70 - 127
3-Nitrotoluene	2.00	2.06		ug/L		103	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.85		ug/L		93	76 - 125

Method: 8330A - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 280-499740/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500850 — **Prep Batch: 499740**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrotoluene	2.00	1.92		ug/L		96	71 - 127
HMX	2.00	2.19		ug/L		109	65 - 135
Nitrobenzene	2.00	2.11		ug/L		106	65 - 134
RDX	2.00	2.13		ug/L		107	68 - 130
Tetryl	2.00	2.15		ug/L		108	64 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*83 - 119*

Lab Sample ID: LCS 280-499740/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500850 — **Prep Batch: 499740**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MNX	2.33	2.08	M	ug/L		89	57 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*105*		*83 - 119*

Lab Sample ID: LCSD 280-499740/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500850 — **Prep Batch: 499740**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	2.46		ug/L		123	73 - 125	2	30
1,3-Dinitrobenzene	2.00	2.33		ug/L		116	78 - 120	3	30
2,4,6-Trinitrotoluene	2.00	2.42	M	ug/L		121	71 - 123	3	30
2,4-Dinitrotoluene	2.00	2.19	M	ug/L		109	78 - 120	3	30
2,6-Dinitrotoluene	2.00	2.21	M	ug/L		111	77 - 127	0	30
2-Amino-4,6-dinitrotoluene	2.00	2.18	M	ug/L		109	79 - 120	8	30
2-Nitrotoluene	2.00	2.36	M	ug/L		118	70 - 127	25	30
3-Nitrotoluene	2.00	2.35	M	ug/L		118	73 - 125	13	30
4-Amino-2,6-dinitrotoluene	2.00	1.95	M	ug/L		97	76 - 125	5	30
4-Nitrotoluene	2.00	1.95	M	ug/L		97	71 - 127	1	30
HMX	2.00	2.18	M	ug/L		109	65 - 135	0	30
Nitrobenzene	2.00	2.24		ug/L		112	65 - 134	6	30
RDX	2.00	2.16		ug/L		108	68 - 130	2	30
Tetryl	2.00	2.21		ug/L		110	64 - 128	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*98*		*83 - 119*

Lab Sample ID: LCSD 280-499740/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500850 — **Prep Batch: 499740**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MNX	2.33	2.18	M	ug/L		93	57 - 132	5	30

Method: 8330A - Nitroaromatics and Nitramines (HPLC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dinitrobenzene	104	M	83 - 119

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-499930/57 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499930

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.022	mg/L		06/23/20 13:09	1

Lab Sample ID: LCS 280-499930/56 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.72		mg/L		109	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-500426/28-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500581 — **Prep Batch: 500426**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/29/20 20:22	1

Lab Sample ID: LCS 280-500426/27-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500581 — **Prep Batch: 500426**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Total Kjeldahl	6.00	6.56		mg/L		109	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-500436/60 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500436

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		06/28/20 18:36	1

Lab Sample ID: LCS 280-500436/59 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	5.00	4.89		mg/L		98	90 - 110

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 280-499634/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499653 — **Prep Batch: 499634**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	0.800	J	4.0	1.9	0.79	mg/L		06/22/20 12:04	1

Lab Sample ID: LCS 280-499634/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499653 — **Prep Batch: 499634**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	22.9	20.0		mg/L		87	44 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-500939/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500939

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		07/02/20 14:40	1

Lab Sample ID: LCS 280-500939/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100	95.6		mg/L		96	87 - 112

Lab Sample ID: LCSD 280-500939/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500939

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	100	95.4		mg/L		95	87 - 112	0	10

Lab Sample ID: MRL 280-500939/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500939

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.32	J	mg/L		86	50 - 150

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 280-500659/27-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 501126

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	1.0	U	1.0	1.0	0.35	mg/L		07/03/20 05:51	1

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 280-500659/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 501126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Organic Carbon - Quad			25.0	27.0		mg/L		108	88 - 112		

Lab Sample ID: LCSD 280-500659/26-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 501126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Organic Carbon - Quad			25.0	27.2		mg/L		109	88 - 112	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-499747/31 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499747

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	10	U	10	10	3.1	mg/L		06/22/20 16:35	1

Lab Sample ID: MB 280-499747/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499747

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	10	U	10	10	3.1	mg/L		06/22/20 13:53	1

Lab Sample ID: LCS 280-499747/30 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499747

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3			200	181		mg/L		91	89 - 109		

Lab Sample ID: LCS 280-499747/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 499747

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3			200	182		mg/L		91	89 - 109		

QC Association Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

GC VOA

Analysis Batch: 499633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	RSK-175	
280-137848-2	G0090-20A	Total/NA	Water	RSK-175	
MB 280-499633/4	Method Blank	Total/NA	Water	RSK-175	
LCS 280-499633/2	Lab Control Sample	Total/NA	Water	RSK-175	

HPLC/IC

Prep Batch: 499740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	3535	
280-137848-2	G0090-20A	Total/NA	Water	3535	
MB 280-499740/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-499740/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-499740/4-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-499740/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
LCSD 280-499740/5-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 500850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-499740/1-A	Method Blank	Total/NA	Water	8330A	499740
LCS 280-499740/2-A	Lab Control Sample	Total/NA	Water	8330A	499740
LCS 280-499740/4-A	Lab Control Sample	Total/NA	Water	8330A	499740
LCSD 280-499740/3-A	Lab Control Sample Dup	Total/NA	Water	8330A	499740
LCSD 280-499740/5-A	Lab Control Sample Dup	Total/NA	Water	8330A	499740

Analysis Batch: 500997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	8330A	499740
280-137848-2	G0090-20A	Total/NA	Water	8330A	499740

Analysis Batch: 501007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	8330A	499740
280-137848-2	G0090-20A	Total/NA	Water	8330A	499740

General Chemistry

Prep Batch: 499634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	9030B	
280-137848-2	G0090-20A	Total/NA	Water	9030B	
MB 280-499634/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-499634/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 499653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	9034	499634
280-137848-2	G0090-20A	Total/NA	Water	9034	499634
MB 280-499634/2-A	Method Blank	Total/NA	Water	9034	499634
LCS 280-499634/1-A	Lab Control Sample	Total/NA	Water	9034	499634

General Chemistry

Analysis Batch: 499747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	SM 2320B	
280-137848-2	G0090-20A	Total/NA	Water	SM 2320B	
MB 280-499747/31	Method Blank	Total/NA	Water	SM 2320B	
MB 280-499747/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-499747/30	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 280-499747/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 499930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	350.1	
280-137848-2	G0090-20A	Total/NA	Water	350.1	
MB 280-499930/57	Method Blank	Total/NA	Water	350.1	
LCS 280-499930/56	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 500426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	351.2	
280-137848-2	G0090-20A	Total/NA	Water	351.2	
MB 280-500426/28-A	Method Blank	Total/NA	Water	351.2	
LCS 280-500426/27-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 500436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	353.2	
280-137848-2	G0090-20A	Total/NA	Water	353.2	
MB 280-500436/60	Method Blank	Total/NA	Water	353.2	
LCS 280-500436/59	Lab Control Sample	Total/NA	Water	353.2	

Analysis Batch: 500581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	351.2	500426
280-137848-2	G0090-20A	Total/NA	Water	351.2	500426
MB 280-500426/28-A	Method Blank	Total/NA	Water	351.2	500426
LCS 280-500426/27-A	Lab Control Sample	Total/NA	Water	351.2	500426

Filtration Batch: 500659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Dissolved	Water	FILTRATION	
280-137848-2	G0090-20A	Dissolved	Water	FILTRATION	
MB 280-500659/27-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-500659/25-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-500659/26-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Analysis Batch: 500939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Total/NA	Water	9056A	
280-137848-2	G0090-20A	Total/NA	Water	9056A	
MB 280-500939/6	Method Blank	Total/NA	Water	9056A	
LCS 280-500939/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-500939/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-500939/3	Lab Control Sample	Total/NA	Water	9056A	

QC Association Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

General Chemistry

Analysis Batch: 501126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137848-1	PZ018-20A	Dissolved	Water	9060A	500659
280-137848-2	G0090-20A	Dissolved	Water	9060A	500659
MB 280-500659/27-A	Method Blank	Dissolved	Water	9060A	500659
LCS 280-500659/25-A	Lab Control Sample	Dissolved	Water	9060A	500659
LCSD 280-500659/26-A	Lab Control Sample Dup	Dissolved	Water	9060A	500659

Lab Chronicle

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Client Sample ID: PZ018-20A

Lab Sample ID: 280-137848-1

Date Collected: 06/16/20 15:15
Date Received: 06/19/20 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	18 mL	18 mL	499633	06/22/20 18:38	GPM	TAL DEN
Total/NA	Prep	3535			461.2 mL	5 mL	499740	06/23/20 10:47	MLA	TAL DEN
Total/NA	Analysis	8330A		1			501007	07/03/20 12:03	JZ	TAL DEN
Total/NA	Prep	3535			461.2 mL	5 mL	499740	06/23/20 10:47	MLA	TAL DEN
Total/NA	Analysis	8330A		1			500997	07/02/20 23:30	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	499930	06/23/20 14:05	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	500426	06/28/20 15:33	SVC	TAL DEN
Total/NA	Analysis	351.2		1			500581	06/29/20 20:46	SVC	TAL DEN
Total/NA	Analysis	353.2		5	100 mL	100 mL	500436	06/28/20 19:00	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	499634	06/22/20 10:42	SAH	TAL DEN
Total/NA	Analysis	9034		1			499653	06/22/20 12:04	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	500939	07/02/20 22:14	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	500659	06/30/20 12:40	SGB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	501126	07/03/20 14:58	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			499747	06/22/20 17:10	RAF	TAL DEN

Client Sample ID: G0090-20A

Lab Sample ID: 280-137848-2

Date Collected: 06/16/20 14:55
Date Received: 06/19/20 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	18 mL	18 mL	499633	06/22/20 18:55	GPM	TAL DEN
Total/NA	Prep	3535			469.1 mL	5 mL	499740	06/23/20 10:47	MLA	TAL DEN
Total/NA	Analysis	8330A		1			501007	07/03/20 12:38	JZ	TAL DEN
Total/NA	Prep	3535			469.1 mL	5 mL	499740	06/23/20 10:47	MLA	TAL DEN
Total/NA	Analysis	8330A		1			500997	07/02/20 23:07	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	499930	06/23/20 14:07	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	500426	06/28/20 15:33	SVC	TAL DEN
Total/NA	Analysis	351.2		1			500581	06/29/20 20:47	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	500436	06/28/20 19:02	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	499634	06/22/20 10:42	SAH	TAL DEN
Total/NA	Analysis	9034		1			499653	06/22/20 12:04	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	500939	07/02/20 23:06	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	500659	06/30/20 12:40	SGB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	501126	07/03/20 15:21	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			499747	06/22/20 17:16	RAF	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Laboratory: Eurofins TestAmerica, Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21

Method Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	TAL DEN
8330A	Nitroaromatics and Nitramines (HPLC)	EPA	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Dissolved (DOC)	SW846	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
3535	Solid-Phase Extraction (SPE)	SW846	TAL DEN
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-137848-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-137848-1	PZ018-20A	Water	06/16/20 15:15	06/19/20 09:15	
280-137848-2	G0090-20A	Water	06/16/20 14:55	06/19/20 09:15	

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/6 Client Sample ID:

Date Analyzed: 05/16/20 10:57 Lab File ID: 001F0101.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethane	1.51	Peak not integrated	meierg	05/17/20 06:37

Lab Sample ID: IC 280-495152/6 Client Sample ID:

Date Analyzed: 05/16/20 10:57 Lab File ID: 001F0101.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:19
Ethane	4.31	Peak not integrated	meierg	05/17/20 06:37

Lab Sample ID: IC 280-495152/7 Client Sample ID:

Date Analyzed: 05/16/20 11:13 Lab File ID: 001F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.04	Peak not integrated	meierg	05/17/20 06:43

Lab Sample ID: IC 280-495152/7 Client Sample ID:

Date Analyzed: 05/16/20 11:13 Lab File ID: 001F0201.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 06:43
Acetylene	4.14	Peak not integrated	meierg	05/17/20 06:43

Lab Sample ID: IC 280-495152/8 Client Sample ID:

Date Analyzed: 05/16/20 11:30 Lab File ID: 002F0301.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.04	Peak not integrated	meierg	05/17/20 06:45

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/8 Client Sample ID:

Date Analyzed: 05/16/20 11:30 Lab File ID: 002F0301.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 06:44
Acetylene	4.14	Peak not integrated	meierg	05/17/20 06:45

Lab Sample ID: IC 280-495152/9 Client Sample ID:

Date Analyzed: 05/16/20 11:46 Lab File ID: 003F0401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 06:46

Lab Sample ID: ICRT 280-495152/10 Client Sample ID:

Date Analyzed: 05/16/20 12:02 Lab File ID: 004F0501.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.02	Peak not integrated	meierg	05/17/20 07:07

Lab Sample ID: ICRT 280-495152/10 Client Sample ID:

Date Analyzed: 05/16/20 12:02 Lab File ID: 004F0501.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 07:06
Acetylene	4.14	Peak not integrated	meierg	05/17/20 07:07

Lab Sample ID: IC 280-495152/11 Client Sample ID:

Date Analyzed: 05/16/20 12:19 Lab File ID: 005F0601.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:09

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/12 Client Sample ID:

Date Analyzed: 05/16/20 12:35 Lab File ID: 006F0701.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:16

Lab Sample ID: ICV 280-495152/16 Client Sample ID:

Date Analyzed: 05/16/20 13:25 Lab File ID: 010F1001.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:28

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 499633

Lab Sample ID: CCVRT 280-499633/1 Client Sample ID:

Date Analyzed: 06/22/20 11:07 Lab File ID: 06222001.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.15	Shouldering	meierg	06/22/20 11:20

Lab Sample ID: CCV 280-499633/16 Client Sample ID:

Date Analyzed: 06/22/20 15:22 Lab File ID: 06222016.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	3.95	Peak not integrated	meierg	06/24/20 10:33

Lab Sample ID: CCV 280-499633/16 Client Sample ID:

Date Analyzed: 06/22/20 15:22 Lab File ID: 06222016.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.02	Shouldering	meierg	06/24/20 10:33
Acetylene	4.13	Peak not integrated	meierg	06/24/20 10:33

Lab Sample ID: CCV 280-499633/30 Client Sample ID:

Date Analyzed: 06/22/20 19:11 Lab File ID: 06222030.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	3.96	Peak not integrated	meierg	06/24/20 10:53

Lab Sample ID: CCV 280-499633/30 Client Sample ID:

Date Analyzed: 06/22/20 19:11 Lab File ID: 06222030.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	06/24/20 10:53
Acetylene	4.13	Peak not integrated	meierg	06/24/20 10:53

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/7 Client Sample ID:

Date Analyzed: 05/14/20 16:16 Lab File ID: 05140007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	16.48	Split Peak	zhangji	05/14/20 17:09
4-Nitrotoluene	16.72	Split Peak	zhangji	05/14/20 17:09
4-Amino-2,6-dinitrotoluene	17.07	Split Peak	zhangji	05/14/20 17:08
3-Nitrotoluene	17.78	Split Peak	zhangji	05/14/20 17:08
2-Amino-4,6-dinitrotoluene	17.94	Split Peak	zhangji	05/14/20 17:08
1,3,5-Trinitrobenzene	18.83	Peak assignment corrected	zhangji	05/14/20 17:08
2,6-Dinitrotoluene	19.74	Peak assignment corrected	zhangji	05/14/20 17:08
2,4-Dinitrotoluene	20.24	Peak assignment corrected	zhangji	05/14/20 17:08
Tetryl	23.52	Peak assignment corrected	zhangji	05/14/20 17:08
2,4,6-Trinitrotoluene	24.62	Peak assignment corrected	zhangji	05/14/20 17:08

Lab Sample ID: IC 280-494886/8 Client Sample ID:

Date Analyzed: 05/14/20 16:51 Lab File ID: 05140008.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	13.03	Baseline	zhangji	05/15/20 11:34

Lab Sample ID: IC 280-494886/9 Client Sample ID:

Date Analyzed: 05/14/20 17:26 Lab File ID: 05140009.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	13.03	Baseline	zhangji	05/15/20 11:34

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/10 Client Sample ID:

Date Analyzed: 05/14/20 18:01 Lab File ID: 05140010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.27	Peak assignment corrected	zhangji	05/15/20 11:20
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:34
1,3-Dinitrobenzene	15.55	Baseline	zhangji	05/15/20 11:20
2-Nitrotoluene	16.54	Baseline	zhangji	05/15/20 11:20
4-Nitrotoluene	16.82	Baseline	zhangji	05/15/20 11:20
4-Amino-2,6-dinitrotoluene	17.15	Baseline	zhangji	05/15/20 11:20
3-Nitrotoluene	17.75	Baseline	zhangji	05/15/20 11:20
2-Amino-4,6-dinitrotoluene	18.04	Baseline	zhangji	05/15/20 11:20
2,6-Dinitrotoluene	19.81	Baseline	zhangji	05/15/20 11:20
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:20
PETN	25.28	Peak Tail	zhangji	05/15/20 11:25

Lab Sample ID: IC 280-494886/11 Client Sample ID:

Date Analyzed: 05/14/20 18:36 Lab File ID: 05140011.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.30	Peak assignment corrected	zhangji	05/15/20 11:20
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:35
Nitroglycerin	15.85	Baseline	zhangji	05/15/20 11:32
PETN	25.28	Peak Tail	zhangji	05/15/20 11:25

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/12 Client Sample ID:

Date Analyzed: 05/14/20 19:11 Lab File ID: 05140012.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.31	Peak assignment corrected	zhangji	05/15/20 11:22
1,3-Dinitrobenzene	15.55	Baseline	zhangji	05/15/20 11:21
Nitroglycerin	15.85	Baseline	zhangji	05/15/20 11:32
2-Nitrotoluene	16.53	Baseline	zhangji	05/15/20 11:21
4-Nitrotoluene	16.83	Baseline	zhangji	05/15/20 11:21
4-Amino-2,6-dinitrotoluene	17.15	Baseline	zhangji	05/15/20 11:21
3-Nitrotoluene	17.74	Baseline	zhangji	05/15/20 11:21
2-Amino-4,6-dinitrotoluene	18.05	Baseline	zhangji	05/15/20 11:21
1,3,5-Trinitrobenzene	18.88	Baseline	zhangji	05/15/20 11:21
2,6-Dinitrotoluene	19.79	Baseline	zhangji	05/15/20 11:21
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:21
PETN	25.28	Peak Tail	zhangji	05/15/20 11:24

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/13 Client Sample ID:

Date Analyzed: 05/14/20 19:46 Lab File ID: 05140013.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.33	Baseline	zhangji	05/15/20 11:22
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:35
1,3-Dinitrobenzene	15.54	Baseline	zhangji	05/15/20 11:22
Nitroglycerin	15.84	Incomplete Integration	zhangji	05/15/20 11:32
2-Nitrotoluene	16.55	Baseline	zhangji	05/15/20 11:22
4-Nitrotoluene	16.84	Baseline	zhangji	05/15/20 11:22
4-Amino-2,6-dinitrotoluene	17.16	Baseline	zhangji	05/15/20 11:22
3-Nitrotoluene	17.72	Baseline	zhangji	05/15/20 11:22
2-Amino-4,6-dinitrotoluene	18.03	Baseline	zhangji	05/15/20 11:22
1,3,5-Trinitrobenzene	18.86	Baseline	zhangji	05/15/20 11:22
2,6-Dinitrotoluene	19.82	Baseline	zhangji	05/15/20 11:22
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:22
PETN	25.28	Peak Tail	zhangji	05/15/20 11:24

Lab Sample ID: IC 280-494886/14 Client Sample ID:

Date Analyzed: 05/14/20 20:21 Lab File ID: 05140014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.32	Peak assignment corrected	zhangji	05/15/20 11:22
1,2-Dinitrobenzene	13.02	Split Peak	zhangji	05/15/20 11:35
PETN	25.28	Split Peak	zhangji	05/15/20 11:24

Lab Sample ID: IC 280-494886/15 Client Sample ID:

Date Analyzed: 05/14/20 20:56 Lab File ID: 05140015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene	19.76	Baseline	zhangji	05/15/20 11:30
2,4-Dinitrotoluene	20.30	Baseline	zhangji	05/15/20 11:30

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: ICV 280-494886/16 Client Sample ID:

Date Analyzed: 05/14/20 21:31 Lab File ID: 05140016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.23	Peak assignment corrected	zhangji	05/15/20 11:14
2-Nitrotoluene	16.49	Baseline	zhangji	05/15/20 11:33
4-Nitrotoluene	16.77	Baseline	zhangji	05/15/20 11:33
4-Amino-2,6-dinitrotoluene	17.10	Baseline	zhangji	05/15/20 11:33
3-Nitrotoluene	17.69	Baseline	zhangji	05/15/20 11:33
2-Amino-4,6-dinitrotoluene	17.99	Baseline	zhangji	05/15/20 11:33
1,3,5-Trinitrobenzene	18.83	Baseline	zhangji	05/15/20 11:33
2,6-Dinitrotoluene	19.75	Baseline	zhangji	05/15/20 11:33
2,4-Dinitrotoluene	20.24	Baseline	zhangji	05/15/20 11:33

Lab Sample ID: IC 280-494886/17 Client Sample ID:

Date Analyzed: 05/14/20 22:06 Lab File ID: 05140017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.71	Peak assignment corrected	zhangji	05/15/20 11:36

Lab Sample ID: IC 280-494886/18 Client Sample ID:

Date Analyzed: 05/14/20 22:41 Lab File ID: 05140018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.73	Peak assignment corrected	zhangji	05/15/20 11:36

Lab Sample ID: IC 280-494886/19 Client Sample ID:

Date Analyzed: 05/14/20 23:16 Lab File ID: 05140019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.74	Peak assignment corrected	zhangji	05/15/20 11:36

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/20 Client Sample ID:

Date Analyzed: 05/14/20 23:51 Lab File ID: 05140020.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.74	Peak assignment corrected	zhangji	05/15/20 11:36

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 501007

Lab Sample ID: CCV 280-501007/31 Client Sample ID:

Date Analyzed: 07/03/20 09:43 Lab File ID: 07020031.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	15.91	Baseline	zhangji	07/03/20 10:50
Nitroglycerin	16.14	Baseline	zhangji	07/03/20 10:49
2-Nitrotoluene	16.85	Baseline	zhangji	07/03/20 10:50
4-Nitrotoluene	17.14	Baseline	zhangji	07/03/20 10:50
4-Amino-2,6-dinitrotoluene	17.59	Baseline	zhangji	07/03/20 10:50
3-Nitrotoluene	18.07	Baseline	zhangji	07/03/20 10:50
2-Amino-4,6-dinitrotoluene	18.52	Baseline	zhangji	07/03/20 10:50
1,3,5-Trinitrobenzene	19.25	Baseline	zhangji	07/03/20 10:50
2,6-Dinitrotoluene	20.19	Baseline	zhangji	07/03/20 10:50
2,4-Dinitrotoluene	20.70	Baseline	zhangji	07/03/20 10:50
Tetryl	24.01	Baseline	zhangji	07/03/20 10:49

Lab Sample ID: 280-137848-1 Client Sample ID: PZ018-20A

Date Analyzed: 07/03/20 12:03 Lab File ID: 07020035.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	7.20	Baseline	zhangji	07/03/20 12:48
2,4-Dinitrotoluene		Invalid Compound ID	zhangji	07/03/20 12:49
2-Nitrotoluene		Invalid Compound ID	zhangji	07/03/20 12:48
4-Amino-2,6-dinitrotoluene	17.60	Baseline	zhangji	07/03/20 12:49
1,3,5-Trinitrobenzene	19.26	Baseline	zhangji	07/03/20 12:49
2,4,6-Trinitrotoluene	25.03	Baseline	zhangji	07/03/20 12:49

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 501007

Lab Sample ID: 280-137848-2 Client Sample ID: G0090-20A

Date Analyzed: 07/03/20 12:38 Lab File ID: 07020036.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	7.21	Baseline	zhangji	07/03/20 13:18
RDX	9.43	Baseline	zhangji	07/03/20 13:19
1,3,5-Trinitrobenzene		Baseline	zhangji	07/03/20 13:19
3-Nitrotoluene		Baseline	zhangji	07/03/20 13:19
Tetryl		Invalid Compound ID	zhangji	07/03/20 13:19
1,2-Dinitrobenzene	13.39	Baseline	zhangji	07/03/20 13:19
2-Nitrotoluene	16.86	Baseline	zhangji	07/03/20 13:19
2-Amino-4,6-dinitrotoluene	18.52	Baseline	zhangji	07/03/20 13:19

Lab Sample ID: CCV 280-501007/40 Client Sample ID:

Date Analyzed: 07/03/20 14:58 Lab File ID: 07020040.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	8.01	Baseline	zhangji	07/03/20 15:33

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 501007

Lab Sample ID: CCV 280-501007/39 Client Sample ID:

Date Analyzed: 07/03/20 15:33 Lab File ID: 007-3901.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.33	Peak assignment corrected	zhangji	07/03/20 16:10
Nitrobenzene	12.40	Baseline	zhangji	07/03/20 16:10
1,2-Dinitrobenzene	13.42	Baseline	zhangji	07/03/20 16:10
1,3-Dinitrobenzene	15.94	Baseline	zhangji	07/03/20 16:10
Nitroglycerin	16.18	Baseline	zhangji	07/03/20 16:10
2-Nitrotoluene	16.90	Baseline	zhangji	07/03/20 16:10
4-Nitrotoluene	17.18	Baseline	zhangji	07/03/20 16:10
4-Amino-2,6-dinitrotoluene	17.63	Baseline	zhangji	07/03/20 16:10
3-Nitrotoluene	18.12	Baseline	zhangji	07/03/20 16:10
2-Amino-4,6-dinitrotoluene	18.56	Baseline	zhangji	07/03/20 16:10
1,3,5-Trinitrobenzene	19.29	Baseline	zhangji	07/03/20 16:10
2,6-Dinitrotoluene	20.23	Baseline	zhangji	07/03/20 16:10
2,4-Dinitrotoluene	20.74	Baseline	zhangji	07/03/20 16:10

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/25 Client Sample ID:

Date Analyzed: 03/04/20 21:00 Lab File ID: 03040025.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:29
DNX	6.92	Baseline	beckerc	03/05/20 08:29
MNX	7.36	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/26 Client Sample ID:

Date Analyzed: 03/04/20 21:23 Lab File ID: 03040026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:30
DNX	6.92	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/27 Client Sample ID:

Date Analyzed: 03/04/20 21:45 Lab File ID: 03040027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:30
DNX	6.92	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/28 Client Sample ID:

Date Analyzed: 03/04/20 22:09 Lab File ID: 03040028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:31

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/29 Client Sample ID:

Date Analyzed: 03/04/20 22:31 Lab File ID: 03040029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:31

Lab Sample ID: IC 280-487658/30 Client Sample ID:

Date Analyzed: 03/04/20 22:54 Lab File ID: 03040030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:32

Lab Sample ID: IC 280-487658/31 Client Sample ID:

Date Analyzed: 03/04/20 23:17 Lab File ID: 03040031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:32
DNX	6.91	Baseline	beckerc	03/05/20 08:32

Lab Sample ID: IC 280-487658/32 Client Sample ID:

Date Analyzed: 03/04/20 23:40 Lab File ID: 03040032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:32
DNX	6.91	Baseline	beckerc	03/05/20 08:32

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: ICV 280-487658/33 Client Sample ID:

Date Analyzed: 03/05/20 00:03 Lab File ID: 03040033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:37
DNX	6.91	Baseline	beckerc	03/05/20 08:37

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: IC 280-489145/7 Client Sample ID:

Date Analyzed: 03/18/20 11:35 Lab File ID: 03180007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/19/20 08:41
1,3-Dinitrobenzene	9.53	Baseline	beckerc	03/19/20 08:41

Lab Sample ID: IC 280-489145/8 Client Sample ID:

Date Analyzed: 03/18/20 11:58 Lab File ID: 03180008.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:41

Lab Sample ID: IC 280-489145/9 Client Sample ID:

Date Analyzed: 03/18/20 12:21 Lab File ID: 03180009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:42

Lab Sample ID: IC 280-489145/10 Client Sample ID:

Date Analyzed: 03/18/20 12:44 Lab File ID: 03180010.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:42

Lab Sample ID: IC 280-489145/11 Client Sample ID:

Date Analyzed: 03/18/20 13:07 Lab File ID: 03180011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:43

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: IC 280-489145/12 Client Sample ID:

Date Analyzed: 03/18/20 13:30 Lab File ID: 03180012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:43

Lab Sample ID: IC 280-489145/13 Client Sample ID:

Date Analyzed: 03/18/20 13:53 Lab File ID: 03180013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:44

Lab Sample ID: IC 280-489145/14 Client Sample ID:

Date Analyzed: 03/18/20 14:16 Lab File ID: 03180014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:44
2-Amino-4,6-dinitrotoluene	11.63	Baseline	beckerc	03/19/20 08:44
2,6-Dinitrotoluene	11.79	Unspecified		

Lab Sample ID: IC 280-489145/15 Client Sample ID:

Date Analyzed: 03/18/20 14:39 Lab File ID: 03180015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.08	Unspecified		
2-Amino-4,6-dinitrotoluene	11.64	Baseline	beckerc	03/19/20 08:46
2,6-Dinitrotoluene	11.80	Unspecified		

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: ICV 280-489145/16 Client Sample ID:

Date Analyzed: 03/18/20 15:02 Lab File ID: 03180016.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:47

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500850

Lab Sample ID: CCV 280-500850/41 Client Sample ID:

Date Analyzed: 07/02/20 06:17 Lab File ID: 07010041.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.73	Baseline	zhangji	07/02/20 11:30
Tetryl	10.31	Baseline	zhangji	07/02/20 11:33
2,4,6-Trinitrotoluene	11.29	Baseline	zhangji	07/02/20 11:30
4-Amino-2,6-dinitrotoluene	11.47	Baseline	zhangji	07/02/20 11:32
2-Amino-4,6-dinitrotoluene	11.77	Baseline	zhangji	07/02/20 11:32
2,6-Dinitrotoluene	11.89	Baseline	zhangji	07/02/20 11:32
2,4-Dinitrotoluene	12.10	Baseline	zhangji	07/02/20 11:32
2-Nitrotoluene	12.93	Baseline	zhangji	07/02/20 11:31
4-Nitrotoluene	13.38	Baseline	zhangji	07/02/20 11:31
3-Nitrotoluene	13.97	Baseline	zhangji	07/02/20 11:31

Lab Sample ID: CCV 280-500850/42 Client Sample ID:

Date Analyzed: 07/02/20 06:40 Lab File ID: 07010042.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.63	Baseline	zhangji	07/02/20 13:03
DNX	6.95	Baseline	zhangji	07/02/20 13:03

Lab Sample ID: MB 280-499740/1-A Client Sample ID:

Date Analyzed: 07/02/20 07:03 Lab File ID: 07010043.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene		Invalid Compound ID	zhangji	07/02/20 13:03

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500850

Lab Sample ID: LCSD 280-499740/3-A Client Sample ID:

Date Analyzed: 07/02/20 07:49 Lab File ID: 07010045.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	07/02/20 13:04
2,4,6-Trinitrotoluene	11.28	Baseline	zhangji	07/02/20 13:04
4-Amino-2,6-dinitrotoluene	11.45	Baseline	zhangji	07/02/20 13:04
2-Amino-4,6-dinitrotoluene	11.74	Baseline	zhangji	07/02/20 13:04
2,6-Dinitrotoluene	11.88	Baseline	zhangji	07/02/20 13:04
2,4-Dinitrotoluene	12.08	Baseline	zhangji	07/02/20 13:04
2-Nitrotoluene	12.92	Baseline	zhangji	07/02/20 13:04
4-Nitrotoluene	13.36	Baseline	zhangji	07/02/20 13:04
3-Nitrotoluene	13.98	Baseline	zhangji	07/02/20 13:04

Lab Sample ID: LCS 280-499740/4-A Client Sample ID:

Date Analyzed: 07/02/20 08:12 Lab File ID: 07010046.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.39	Baseline	zhangji	07/02/20 13:05

Lab Sample ID: LCSD 280-499740/5-A Client Sample ID:

Date Analyzed: 07/02/20 08:35 Lab File ID: 07010047.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.40	Baseline	zhangji	07/02/20 13:06
1,2-Dinitrobenzene	8.76	Baseline	zhangji	07/02/20 13:05

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500850

Lab Sample ID: CCV 280-500850/53 Client Sample ID:

Date Analyzed: 07/02/20 10:53 Lab File ID: 07010053.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	07/02/20 11:34
Nitrobenzene	9.96	Baseline	zhangji	07/02/20 11:34
Tetryl	10.29	Baseline	zhangji	07/02/20 11:34
2,4,6-Trinitrotoluene	11.25	Baseline	zhangji	07/02/20 11:35
4-Amino-2,6-dinitrotoluene	11.42	Baseline	zhangji	07/02/20 11:35
2-Amino-4,6-dinitrotoluene	11.71	Baseline	zhangji	07/02/20 11:35
2,6-Dinitrotoluene	11.85	Baseline	zhangji	07/02/20 11:35
2,4-Dinitrotoluene	12.05	Baseline	zhangji	07/02/20 11:35
2-Nitrotoluene	12.87	Baseline	zhangji	07/02/20 11:35
PETN	14.94	Baseline	zhangji	07/02/20 11:34

Lab Sample ID: CCV 280-500850/54 Client Sample ID:

Date Analyzed: 07/02/20 11:16 Lab File ID: 07010054.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.62	Baseline	zhangji	07/02/20 13:10
DNX	6.94	Baseline	zhangji	07/02/20 13:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500997

Lab Sample ID: CCV 280-500997/14 Client Sample ID:

Date Analyzed: 07/02/20 19:39 Lab File ID: 07020014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl	10.25	Baseline	zhangji	07/03/20 10:17
Nitroglycerin	10.76	Baseline	zhangji	07/03/20 10:22
2,4,6-Trinitrotoluene	11.22	Baseline	zhangji	07/03/20 10:24
4-Amino-2,6-dinitrotoluene	11.39	Baseline	zhangji	07/03/20 10:24
2-Amino-4,6-dinitrotoluene	11.68	Baseline	zhangji	07/03/20 10:24
2,6-Dinitrotoluene	11.81	Baseline	zhangji	07/03/20 10:24
2,4-Dinitrotoluene	12.01	Baseline	zhangji	07/03/20 10:24
2-Nitrotoluene	12.83	Baseline	zhangji	07/03/20 10:21
4-Nitrotoluene	13.27	Baseline	zhangji	07/03/20 10:21
3-Nitrotoluene	13.85	Baseline	zhangji	07/03/20 10:21

Lab Sample ID: CCV 280-500997/15 Client Sample ID:

Date Analyzed: 07/02/20 20:02 Lab File ID: 07020015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.61	Baseline	zhangji	07/03/20 10:22
DNX	6.93	Baseline	zhangji	07/03/20 10:22

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500997

Lab Sample ID: 280-137848-2 Client Sample ID: G0090-20A

Date Analyzed: 07/02/20 23:07 Lab File ID: 07020023.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.75	Baseline	zhangji	07/03/20 10:56
1,3,5-Trinitrobenzene	8.93	Baseline	zhangji	07/03/20 10:56
Nitrobenzene	9.97	Baseline	zhangji	07/03/20 10:56
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	07/03/20 10:55
2-Nitrotoluene		Invalid Compound ID	zhangji	07/03/20 10:56
MNX		Invalid Compound ID	zhangji	07/03/20 10:55
Tetryl		Baseline	zhangji	07/03/20 10:56

Lab Sample ID: 280-137848-1 Client Sample ID: PZ018-20A

Date Analyzed: 07/02/20 23:30 Lab File ID: 07020024.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.70	Baseline	zhangji	07/03/20 10:56
RDX	7.78	Baseline	zhangji	07/03/20 10:56
1,2-Dinitrobenzene	8.75	Baseline	zhangji	07/03/20 10:57
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	07/03/20 10:57
4-Nitrotoluene		Invalid Compound ID	zhangji	07/03/20 10:57
Tetryl		Invalid Compound ID	zhangji	07/03/20 10:57
4-Amino-2,6-dinitrotoluene	11.42	Baseline	zhangji	07/03/20 10:57
2-Amino-4,6-dinitrotoluene	11.71	Baseline	zhangji	07/03/20 10:57
3-Nitrotoluene	13.85	Baseline	zhangji	07/03/20 10:57

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 500997

Lab Sample ID: CCV 280-500997/26 Client Sample ID:

Date Analyzed: 07/03/20 00:16 Lab File ID: 07020026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.61	Baseline	zhangji	07/03/20 10:27
DNX	6.93	Baseline	zhangji	07/03/20 10:27
MNX	7.39	Baseline	zhangji	07/03/20 10:27

8330A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 500779

Lab Sample ID: STD1 280-500779/2 IC Client Sample ID:

Date Analyzed: 07/01/20 10:15 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.56	Incomplete Integration	pedrickj	07/01/20 12:11

Lab Sample ID: STD2 280-500779/3 IC Client Sample ID:

Date Analyzed: 07/01/20 10:32 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.55	Incomplete Integration	pedrickj	07/01/20 12:11

Lab Sample ID: STD3 280-500779/4 IC Client Sample ID:

Date Analyzed: 07/01/20 10:50 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.55	Incomplete Integration	pedrickj	07/01/20 12:11

Lab Sample ID: STD4 280-500779/5 IC Client Sample ID:

Date Analyzed: 07/01/20 11:07 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.32	Incomplete Integration	pedrickj	07/01/20 12:10
Chloride	4.46	Incomplete Integration	pedrickj	07/01/20 12:10
Sulfate	10.57	Incomplete Integration	pedrickj	07/01/20 12:12

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 500779

Lab Sample ID: STD5 280-500779/6 IC Client Sample ID:

Date Analyzed: 07/01/20 11:25 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.32	Incomplete Integration	pedrickj	07/01/20 12:10
Chloride	4.46	Incomplete Integration	pedrickj	07/01/20 12:10
Sulfate	10.55	Incomplete Integration	pedrickj	07/01/20 12:12

Lab Sample ID: STD6 280-500779/7 IC Client Sample ID:

Date Analyzed: 07/01/20 11:42 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.31	Incomplete Integration	pedrickj	07/01/20 12:10
Chloride	4.47	Incomplete Integration	pedrickj	07/01/20 12:10
Sulfate	10.54	Incomplete Integration	pedrickj	07/01/20 12:12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00421	06/30/20	06/23/20	Di Water, Lot na	100 mL	NH3 CAL STD_00031	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00031	08/31/20		Ricca, Lot 2902E25		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00409	06/30/20	06/23/20	na, Lot na	100 mL	NH3 ICV STD_00027	10 mL	Ammonia	100.2 mg/L
.NH3 ICV STD_00027	04/01/21		Inorganic Ventures, Lot N2-NH669544		(Purchased Reagent)		Ammonia	1002 mg/L
8330 DMT_00005	03/31/20	01/21/20	Acetonitrile, Lot 231453	5 mL	MNX,TNX,DNX_00032	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00032	12/31/19		ULTRA Scientific, Lot CS-5628		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 DMT_00006	02/28/21	04/15/20	Acetonitrile, Lot ACN_00232	5 mL	MNX,TNX,DNX_00043	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00043	02/28/21		ULTRA Scientific, Lot 006516106		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 LCS_00095	07/24/20	01/24/20	Acetonitrile, Lot ACN_00231	100 mL	8330LCSMix1_00113	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00009	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.8330LCSMix1_00113	07/31/24		Restek, Lot A0151407		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00009	05/31/24		Restek, Lot A0149387		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetryl	1000 ug/mL
8330 LCS_00098	07/31/20	04/28/20	Acetonitrile, Lot Acetonitrile_00233	100 mL	8330LCSMix1_00111	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00011	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.8330LCSMix1_00111	10/28/20	Restek, Lot A0151407			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00011	10/28/20	Restek, Lot A0157533			(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
8330 LCS_00099	11/11/20	06/02/20	Acetonitrile, Lot Acetonitrile_00044	25 mL	8330 LCSMix2_00106	0.25 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_AUX_00001	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_AUX_00002	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_AUX_00003	0.5 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00081	0.5 mL	PETN	100 ug/mL
					8330LCSMix1_00112	0.25 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					PicricARestek_00090	0.25 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 LCSMix2_00106	11/11/20		Restek, Lot A0141002		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330_NG_AUX_00001	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_NG_AUX_00002	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_NG_AUX_00003	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN_Stk_00081	03/31/21		Restek, Lot A0136306		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00112	11/11/20		Restek, Lot A0151407		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00090	06/02/21		Restek, Lot A0131892		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00006	02/24/21	02/24/20	Acetonitrile, Lot 0000196715	10 mL	MNX,TNX,DNX_00042	1 mL	MNX	11.67 ug/mL
.MNX,TNX,DNX_00042	02/28/21		ULTRA Scientific, Lot 006516106		(Purchased Reagent)		MNX	116.7 ug/mL
8330_OP_DMT_00008	02/28/21	04/30/20	Acetonitrile, Lot 0000249516	10 mL	MNX,TNX,DNX_00046	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00046	02/28/21		ULTRA Scientific, Lot 006516106		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330IntermStk_00061	09/09/21	01/09/20	Acetonitrile, Lot 130057	10 mL	8330_NG_Stk_00075	200 uL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00087	200 uL	PETN	100 ug/mL
					8330ICALStock_00030	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_Stk_00075	08/31/22	Restek, Lot A0151571			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00087	11/30/22	Restek, Lot A0154763			(Purchased Reagent)		PETN	5000 ug/mL
.8330ICALStock_00030	03/03/22	01/09/20	Acetonitrile, Lot 130057	10 mL	8330 Stock_TS_00015	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00164	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00015	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00164	07/01/26	AccuStandard, Lot 216071012			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00061	09/09/21	AccuStandard, Lot 214121302-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00064	09/09/21	04/06/20	Acetonitrile, Lot 130057	10 mL	8330_NG_Stk_00075	200 uL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00087	200 uL	PETN	100 ug/mL
					8330ICALStock_00030	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_Stk_00075	08/31/22	Restek, Lot A0151571			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00087	11/30/22	Restek, Lot A0154763			(Purchased Reagent)		PETN	5000 ug/mL
.8330ICALStock_00030	03/03/22	01/09/20	Acetonitrile, Lot 130057	10 mL	8330 Stock_TS_00015	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00164	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00015	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00164	07/01/26	AccuStandard, Lot 216071012			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00061	09/09/21	AccuStandard, Lot 214121302-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00110	05/17/20	12/17/19	Acetonitrile, Lot ACN_00223	250 mL	8330SurrStkSS_00145	0.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00158	0.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00160	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00161	1 mL	1,2-Dinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8330SurrStkSS_00145	03/31/23	Restek, Lot A0135839			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00158	07/31/24	Restek, Lot A0146866			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00160	10/28/22	Restek, Lot A0150790			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00161	07/31/24	Restek, Lot A0150790			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00114	11/07/20	05/07/20	Acetonitrile, Lot ACN 00234	100 mL	8330SurrStkSS_00157	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00157	11/07/20	Restek, Lot A0146866			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00117	12/19/20	06/19/20	Acetonitrile, Lot Acetonitrile_00045	200 mL	8330SurrStkSS_00170	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00171	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00170	06/19/21	Restek, Lot A0155113			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00171	06/19/21	Restek, Lot A0155113			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_00908	06/29/20	06/22/20	Di Water, Lot na	1000 mL	Alk stk std_00017	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00017	03/30/21	Fischer, Lot 191517			(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
IC CAL cl/so4_00317	07/06/20	06/29/20	Di Water, Lot na	100 mL	IC CL cal_00060	25 mL	Chloride	250 mg/L
					IC sulfatecal_00059	25 mL	Sulfate	250 mg/L
.IC CL cal_00060	01/30/21	SPEX CertiPrep, Lot 4-176CL-2X			(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00059	01/30/21	SPEX CertiPrep, Lot 4-176SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00531	07/03/20	06/26/20	Di Water, Lot NA	100 mL	IC BR ICV_00018	5 mL	Bromide	50 mg/L
					IC FL cal_00014	5 mL	Fluoride	50 mg/L
.IC BR ICV_00018	01/31/21	ricca, Lot 2907E22			(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00014	11/30/20	Ricca, Lot 4905E80			(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01747	07/03/20	06/26/20	Di Water, Lot 27	200 mL	IC sulfatecal_00060	20 mL	Sulfate	100 mg/L as N
.IC sulfatecal_00060	05/30/21	SPEX CertiPrep, Lot 4-197SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00021	08/31/21	ERA, Lot 100819m			(Purchased Reagent)		Sulfate	1000 mg/L
NXN CAL INT_00536	07/01/20	06/24/20	Di Water, Lot NA	100 mL	NOXT Cal STD_00023	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT Cal STD_00023	12/31/20	RICCA, Lot 1906A84			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
NXN ICV INT_00517	07/01/20	06/24/20	Di Water, Lot NA	100 mL	NOXT ICV STD_00023	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT ICV STD_00023	03/11/21	ERA, Lot 130319m			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
RSK175methane_00010	04/16/22	Supelco Analytical, Lot 160-401480003-1			(Purchased Reagent)		Methane	650500 ug/L
RSK7gasMathes_00027	10/24/20	Matheson, Lot 9308634170			(Purchased Reagent)		Methane	6570.3 ug/L
RSK7gasMathes_00031	03/09/22	Matheson, Lot DL0396162			(Purchased Reagent)		Acetylene	10667 ug/L
							Ethane	12317 ug/L
							Ethylene	11490 ug/L
							Methane	6570.3 ug/L
SFD CAL INT_01771	09/08/20	06/22/20	Di Water, Lot NA	500 mL	50% NaOH_00018	2 mL	Sodium Hydroxide	2000 mg/L
					SFD CAL STK_00006	4.2847 g	Sulfide	1144.01 mg/L
.50% NaOH_00018	11/30/22	Fisher, Lot 1603D65			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD CAL STK_00006	10/01/23	ACROS, Lot A0390872			(Purchased Reagent)		Sulfide	0.1335 g/g

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
TKN 25ppm_00809	07/13/20	06/10/20	Di Water, Lot 1	100 mL	TKN 100PPM_00122	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN 100PPM_00122	07/13/20	06/10/20	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TKN ICV 25_00094	07/13/20	06/10/20	DI water, Lot 1	100 mL	TKN ICV 100_00084	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN ICV 100_00084	07/13/20	06/10/20	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TOC ICV Std_00043	08/31/20	Ricca, Lot 2908E72			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1000 ppm
							DOC Result 1	1000 ppm
							DOC Result 2	1000 ppm
							DOC Result 3	1000 ppm
							DOC Result 4	1000 ppm
TOC LCS Std_00048	06/30/21	Agilent, Lot 0006465171			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1001 ppm
							DOC Result 1	1001 ppm
							DOC Result 2	1001 ppm
							DOC Result 3	1001 ppm
							DOC Result 4	1001 ppm

Reagent

50% NaOH_00018

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Sodium Hydroxide, 50% (w/w) (760 g/L), Analytical Reagent Grade

Lot Number: 1912569 **Product Number:** 7291

Manufacture Date: DEC 05, 2019
Expiration Date: NOV 2022

The specifications below are equivalent to the ACS Reagent Grade specifications for Sodium Hydroxide pellets, corrected for assay. There is no ACS specification for 50% (w/w) Sodium Hydroxide solution.

Name	CAS#	Grade
Water	7732-18-5	Reagent
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Sulfuric Acid/Phenolphthalein)	50-52 % (w/w)	51 % (w/w)	723
Chloride (Cl)	max 0.002 %	< 0.002 %	
Heavy Metals (as Ag)	max 0.001 %	< 0.001 %	
Iron (Fe)	max 5 ppm	< 0.001 ppm	3126
NH_4OH Precipitate	max 0.01 %	0.004 %	
Nickel (Ni)	max 5 ppm	0.2 ppm	3136
Nitrogen Compounds (as N)	max 5 ppm	< 5 ppm	
Phosphate (PO_4)	max 5 ppm	< 5 ppm	
Potassium (K)	max 0.01 %	0.001 %	3141
Sodium Carbonate (Na_2CO_3)	max 0.1 %	0.02 %	
Sulfate (SO_4)	max 0.001 %	< 0.001 %	

Specification	Reference
Sodium Hydroxide Solution, 50%	ASTM (D 2187 E)
Sodium Hydroxide Solution, 50%	ASTM (D 2187 F)
Sodium hydroxide stock solution, about 50%	TAPPI (T 235 cm-85)
Sodium Hydroxide Solution	ASTM (D 2187 G)
Sodium Hydroxide Solution, 50%	ASTM (D 4548)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 A)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 B)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 C)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 D)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7291-1	4 L natural poly	36 months
7291-16	500 mL natural poly	36 months

7291-5	20 L Cubitainer®	36 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (12/05/2019)
Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

8330 LCS_00098

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200429-91143.b\04290006.D

Lims ID: C18column:B16162 Inj. Date: 29-Apr-2020 19:29:58

Worklist ID: 280-0091143-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
3 HMX	0.1000	0.0988	98.8	65-135	66-115
7 RDX	0.1000	0.0968	96.8	68-130	69-122
8 2,4,6-Trinitrophenol	0.1000	0.1027	102.7	80-120	63-135
10 1,3,5-Trinitrobenzene	0.1000	0.1037	103.7	73-125	62-127
11 1,3-Dinitrobenzene	0.1000	0.1029	102.9	78-120	59-131
12 Nitrobenzene	0.1000	0.1031	103.1	65-134	46-144
14 Tetryl	0.1000	0.1003	100.3	64-128	56-131
15 Nitroglycerin	1.00	0.9742	97.4	74-127	70-125
16 2,4,6-Trinitrotoluene	0.1000	0.1014	101.4	71-123	46-139
17 4-Amino-2,6-dinitrotolu	0.1000	0.0973	97.3	76-125	43-120
18 2-Amino-4,6-dinitrotolu	0.1000	0.1006	100.6	79-120	46-124
19 2,6-Dinitrotoluene	0.1000	0.1019	101.9	77-127	51-130
20 2,4-Dinitrotoluene	0.1000	0.0984	98.4	78-120	53-127
21 o-Nitrotoluene	0.1000	0.1039	103.9	70-127	37-138
22 p-Nitrotoluene	0.1000	0.1015	101.5	71-127	41-137
23 m-Nitrotoluene	0.1000	0.1043	104.3	73-125	31-140
24 PETN	1.00	0.9068	90.7	73-127	67-127

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-135793-A-1-A 280-135793-A-2-A 280-135793-A-3-A
280-135793-B-4-A 280-135793-A-5-A 280-135793-A-6-A
280-135871-A-1-A 280-135930-A-1-A 280-135930-A-2-A

Samples for Limit Group: 2, Lims Prep Method: 3535

480-168872-A-18-A 480-168872-A-19-A 480-168872-A-20-A
480-168872-A-21-A 600-204066-C-1-A

Reagent

8330 LCS_00099

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200604-92107.b\06040006.D

Lims ID: C18column:B16162 Inj. Date: 04-Jun-2020 15:10:48

Worklist ID: 280-0092107-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
3 HMX	0.4000	0.4497	112.4	65-135	66-115	
7 RDX	0.4000	0.4082	102.1	68-130	69-122	
8 2,4,6-Trinitrophenol	0.4000	0.4552	113.8	80-120	63-135	
10 1,3,5-Trinitrobenzene	0.4000	0.4670	116.7	73-125	62-127	
11 1,3-Dinitrobenzene	0.4000	0.4525	113.1	78-120	59-131	
12 Nitrobenzene	0.4000	0.4580	114.5	65-134	46-144	
14 Tetryl	0.4000	0.4204	105.1	64-128	56-131	
15 Nitroglycerin	4.00	4.24	106.0	74-127	70-125	
16 2,4,6-Trinitrotoluene	0.4000	0.4581	114.5	71-123	46-139	
17 4-Amino-2,6-dinitrotolu	0.4000	0.3915	97.9	76-125	43-120	
18 2-Amino-4,6-dinitrotolu	0.4000	0.4340	108.5	79-120	46-124	
19 2,6-Dinitrotoluene	0.4000	0.4346	108.6	77-127	51-130	
20 2,4-Dinitrotoluene	0.4000	0.4315	107.9	78-120	53-127	
21 o-Nitrotoluene	0.4000	0.4112	102.8	70-127	37-138	
22 p-Nitrotoluene	0.4000	0.4272	106.8	71-127	41-137	
23 m-Nitrotoluene	0.4000	0.4348	108.7	73-125	31-140	
24 PETN	4.00	4.20	105.1	73-127	67-127	

Samples for Limit Group: 1, Lims Prep Method: 3535

280-136151-A-2-B 320-61052-D-3-A 320-61052-D-4-A
320-61052-D-5-A 320-61052-D-6-A 320-61052-D-7-A
320-61052-D-8-A 320-61052-D-9-A 320-61052-D-10-A
320-61052-D-11-A 320-61052-D-12-A 280-136408-B-2-A
280-136410-B-1-A 280-136946-A-6-A 280-136946-A-7-A
280-136946-A-8-A 280-136946-A-9-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-136951-C-1-A 280-136951-C-2-A 280-136951-C-3-A

Samples for Limit Group: 3, Lims Prep Method: 3535

600-205634-D-1-A

Reagent

8330 LCSMix2_00106

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0141002

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 98%	(Lot 29550-55)	1,007.4 µg/mL	+/- 5.9839 µg/mL +/- 55.1906 µg/mL +/- 64.3577 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot BCBB8606V)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot GA01)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 98%	(Lot FBO01)	1,003.5 µg/mL	+/- 5.9606 µg/mL +/- 54.9758 µg/mL +/- 64.1072 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

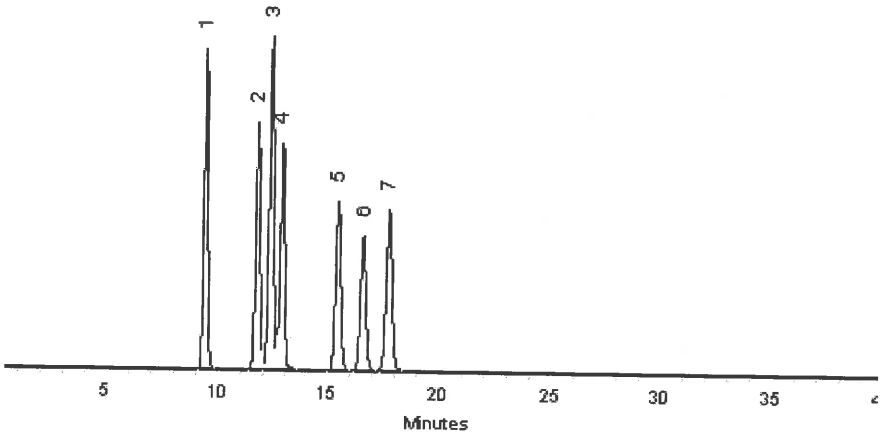
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 23-Aug-2018 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 28-Aug-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330 Stock_TS_00015

Certificate of Analysis
ISO Guide 34

Agilent

Stock Standard

Product Number: NAIM-833E **Page:** 1 of 2

Lot Number: CT-0801 **Lot Issue Date:** 25-Feb-2019 **Expiration Date:** 31-Mar-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
HMX	002691-41-0	RM06237	1000 ± 5 µg/mL
RDX	000121-82-4	RM10915	1000 ± 5 µg/mL
1,3,5-trinitrobenzene	000099-35-4	RM06608	1002 ± 5 µg/mL
m-dinitrobenzene	000099-65-0	RM14290	1002 ± 5 µg/mL
nitrobenzene	000098-95-3	RM11472	1004 ± 5 µg/mL
2,4,6-trinitrotoluene (TNT)	000118-96-7	RM11972	1004 ± 5 µg/mL
2,4-dinitrotoluene	000121-14-2	RM10279	1004 ± 5 µg/mL
tetryl	000479-45-8	RM14651	1002 ± 5 µg/mL
2,6-dinitrotoluene	000606-20-2	NT00450	1004 ± 5 µg/mL
2-nitrotoluene	000088-72-2	NT01996	1000 ± 5 µg/mL
3-nitrotoluene	000099-08-1	NT02212	1001 ± 5 µg/mL
4-nitrotoluene	000099-99-0	NT02096	1002 ± 5 µg/mL
2-amino-4,6-dinitrotoluene	035572-78-2	RM04229	1004 ± 5 µg/mL
4-amino-2,6-dinitrotoluene	019406-51-0	RM04226	1001 ± 5 µg/mL

Matrix: acetonitrile

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ANAB ACCREDITED ISO Guide 34 REFERENCE MATERIAL PRODUCER

ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO17025 Cert No. AT-1937

Certificate of Analysis
ISO Guide 34

Stock Standard

Product Number: NAIM-833E **Page:** 2 of 2

Lot Number: CT-0801 **Lot Issue Date:** 25-Feb-2019 **Expiration Date:** 31-Mar-2022

Analyte	CAS#	Analyte Lot	True Value

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

Reagent

8330_NG_AUX_00001

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

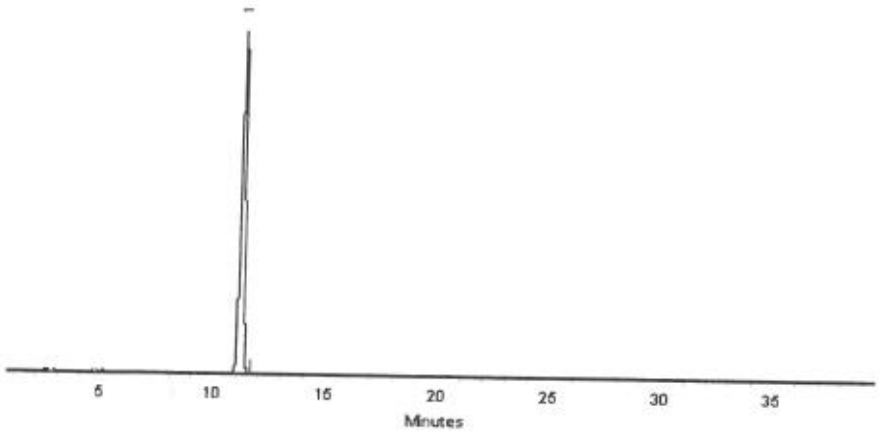
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_AUX_00002

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

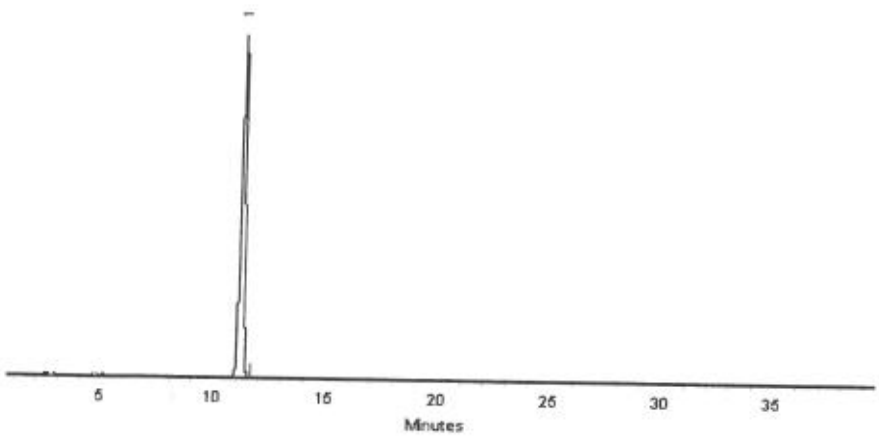
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_AUX_00003

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CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

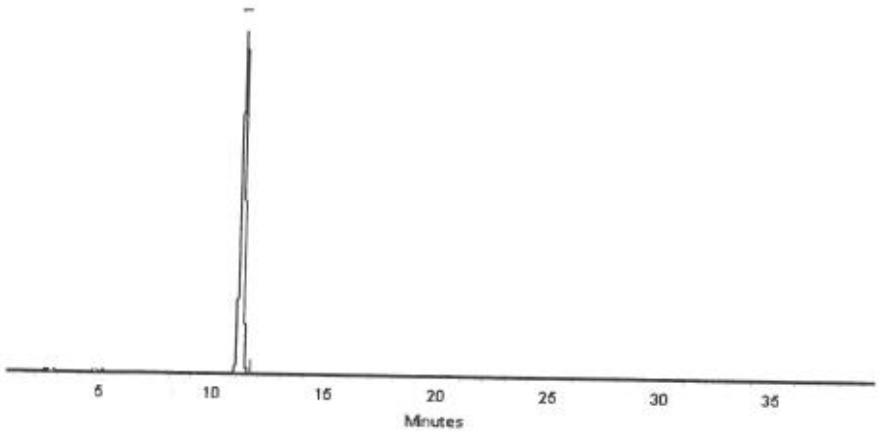
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00075

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0151571

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Nitroglycerin		5,036.0	µg/mL	+/-	46.8321	µg/mL	Gravimetric
	CAS # 55-63-0	(Lot 170616JLM)			+/-	278.2306	µg/mL	Unstressed
	Purity 99%				+/-	323.7234	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

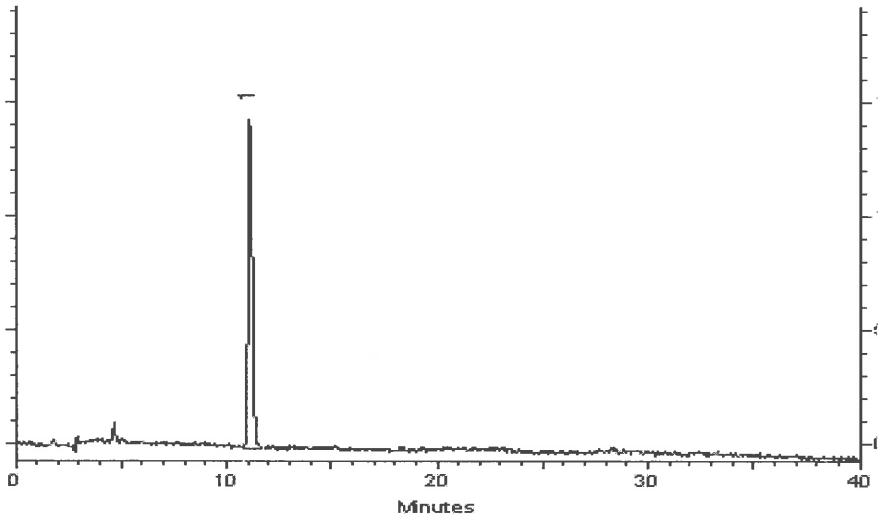
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 05-Aug-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 09-Aug-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330_PETN_Stk_00081

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0136306

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN **CAS #** 78-11-5 (Lot 051108JLM) **Purity** 99%	5,028.0 µg/mL	+/- 46.7577	µg/mL	Gravimetric
			+/- 277.7886	µg/mL	Unstressed
			+/- 323.2092	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

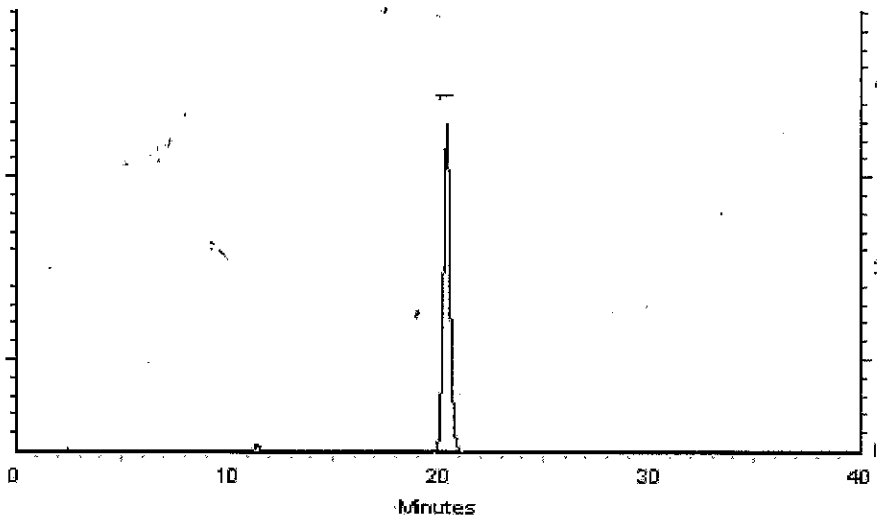
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 19-Mar-2018 **Balance:** 1128360905

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-Mar-2018

REVIEWED

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

Reagent

8330_PETN_Stk_00087

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0154763

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	PETN			5,024.0	µg/mL	+/-	46.7205	µg/mL	Gravimetric
	CAS #	78-11-5	(Lot 051108JLM)			+/-	277.5676	µg/mL	Unstressed
	Purity	99%				+/-	322.9521	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

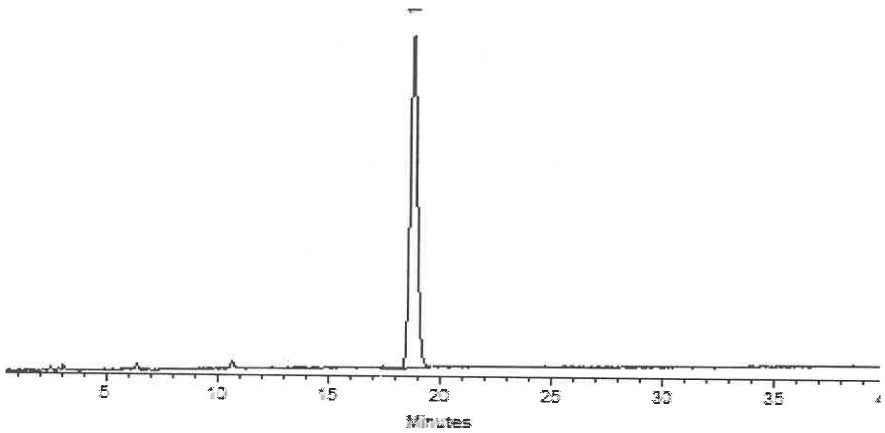
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Windle - Operations Technician I

Date Mixed: 05-Nov-2019 **Balance:** B442140311

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 08-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330LCSMix1_00111

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0151407

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX **CAS #** 2691-41-0 **Purity** 97%	(Lot 190402JLM)	1,004.9 µg/mL	+/- 5.9689 µg/mL +/- 55.0525 µg/mL +/- 64.1967 µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 97%	(Lot DJ5QO)	1,003.0 µg/mL	+/- 5.9574 µg/mL +/- 54.9463 µg/mL +/- 64.0727 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot 5737200)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

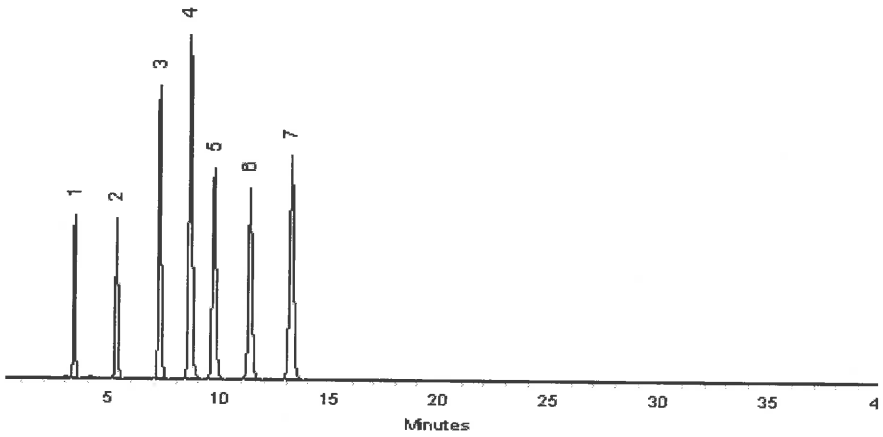
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 30-Jul-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330LCSMix1_00112

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0151407

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX **CAS #** 2691-41-0 **Purity** 97%	(Lot 190402JLM)	1,004.9 µg/mL	+/- 5.9689 µg/mL +/- 55.0525 µg/mL +/- 64.1967 µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 97%	(Lot DJ5QO)	1,003.0 µg/mL	+/- 5.9574 µg/mL +/- 54.9463 µg/mL +/- 64.0727 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot 5737200)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

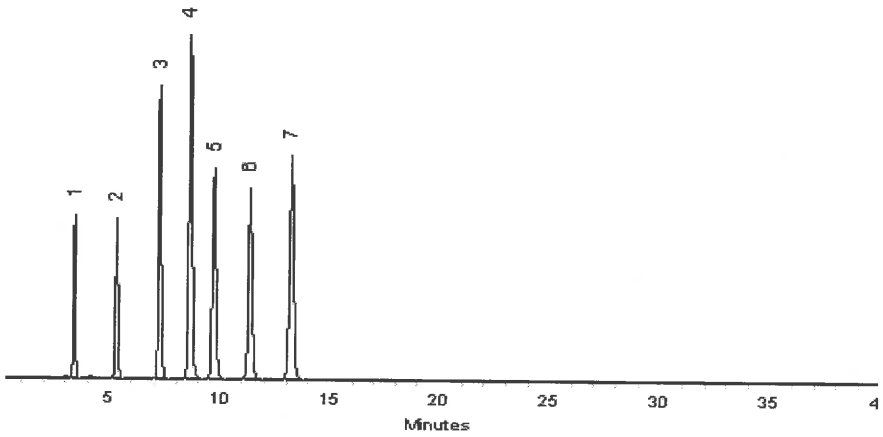
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 30-Jul-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330LCSMix1_00113

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0151407

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX **CAS #** 2691-41-0 **Purity** 97%	(Lot 190402JLM)	1,004.9 µg/mL	+/- 5.9689 µg/mL +/- 55.0525 µg/mL +/- 64.1967 µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 97%	(Lot DJ5QO)	1,003.0 µg/mL	+/- 5.9574 µg/mL +/- 54.9463 µg/mL +/- 64.0727 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot 5737200)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

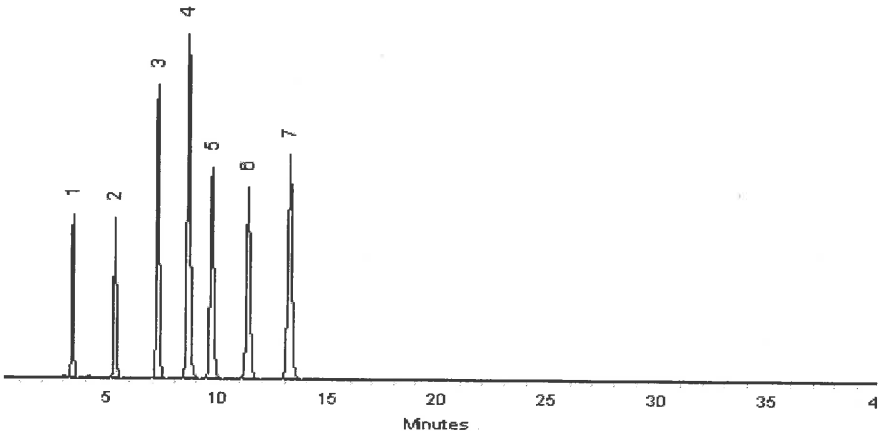
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 30-Jul-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330LCSmix2_00009

RESTEK® CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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Certificate #3222.01

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0149387

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 98%	(Lot 29550-55)	999.6 µg/mL	+/- 5.9373 µg/mL +/- 54.7611 µg/mL +/- 63.8568 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot 1437483V)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot GA01)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 98%	(Lot 07329LG)	1,007.4 µg/mL	+/- 5.9839 µg/mL +/- 55.1906 µg/mL +/- 64.3577 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

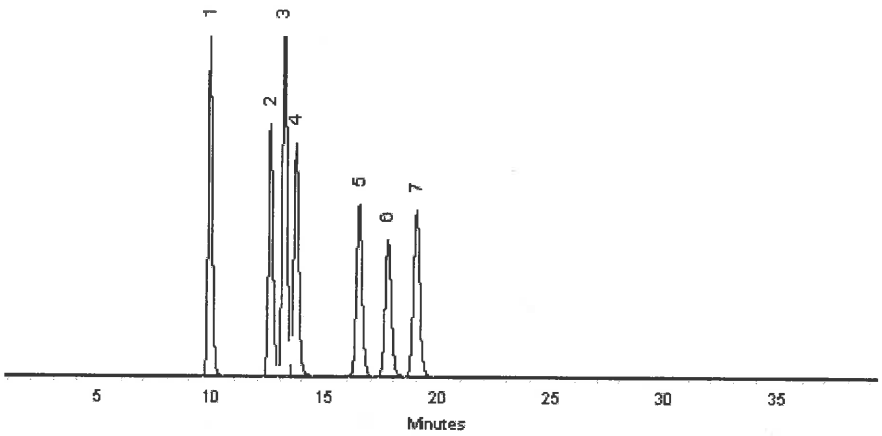
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 21-May-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-May-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330LCSmix2_00011

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0157533

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Tetryl		1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 479-45-8	(Lot 091120JLM)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%			+/- 64.1379	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene		1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 19406-51-0	(Lot ER070908-01)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%			+/- 64.1379	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene		999.6 µg/mL	+/- 5.9373	µg/mL	Gravimetric
	CAS # 35572-78-2	(Lot 29550-55)		+/- 54.7611	µg/mL	Unstressed
	Purity 98%			+/- 63.8568	µg/mL	Stressed
4	2,6-Dinitrotoluene		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot BCBB8606)		+/- 54.8926	µg/mL	Unstressed
	Purity 99%			+/- 64.0101	µg/mL	Stressed
5	2-Nitrotoluene		1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 88-72-2	(Lot BCBZ7826)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%			+/- 64.1379	µg/mL	Stressed
6	4-Nitrotoluene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 99-99-0	(Lot FAU01)		+/- 54.7830	µg/mL	Unstressed
	Purity 99%			+/- 63.8824	µg/mL	Stressed
7	3-Nitrotoluene		1,003.5 µg/mL	+/- 5.9606	µg/mL	Gravimetric
	CAS # 99-08-1	(Lot FBO01)		+/- 54.9758	µg/mL	Unstressed
	Purity 98%			+/- 64.1072	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

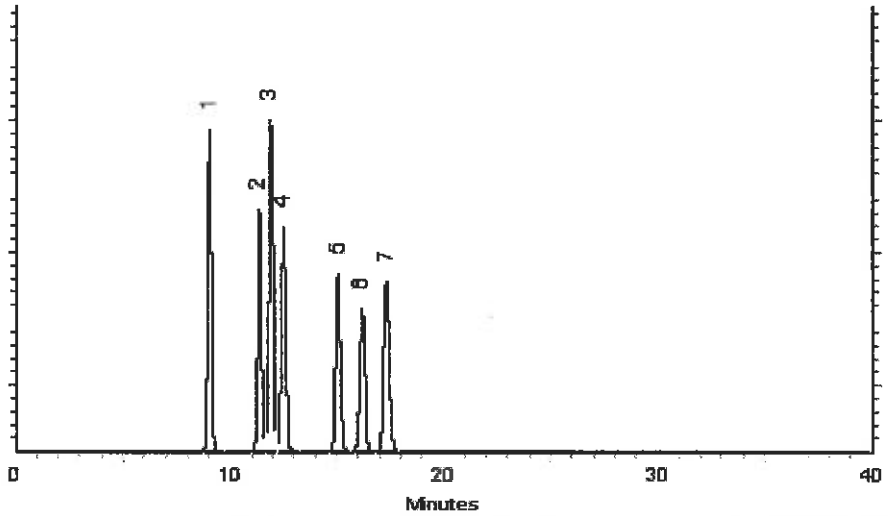
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Windle - Operations Technician I

Date Mixed: 06-Feb-2020 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Feb-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330PAStkPS_00061

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 214121302-02
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Aug 9, 2019
Expiration: Sep 9, 2021
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (HPLC)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 822-275872-11

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

AccuStandard®, Inc.
125 Market St., New Haven, CT 06513 USA
Tel: 203-786-5290 Fax: 203-786-5287

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: M-8330-ADD-3

Description: Picric Acid in Acetonitrile/Methanol Blend

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

Company: AccuStandard, Inc.
125 Market St.
New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.
1-203-502-7070 (USA)
+001-203-502-7070 (International)

24 hours / 7 days a week

SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements

Signal Word: Danger

Hazard Codes:

H225 - Highly Flammable (Flammable liquids, category 2)

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H319 - Causes severe eye irritation. (Eye damage/irritation, category 2A)

H332 - Harmful if inhaled. (Acute toxicity, inhalation, category 4)

H336 - Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

H360 - California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

H370 - Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

Precautionary Codes:

P202 - This product should only by used by persons trained in the safe handling of hazardous chemicals.

P233 - Store in a tightly closed container. (P404)

SECTION 2 - HAZARDS IDENTIFICATION *- continued*

2.1 - GHS Label Elements *- continued*

P260 - Do not breathe vapor.

P262 - Do not get in eyes, on skin or clothing.

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P340 - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

P352 - Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

Highly Flammable (Flammable liquids, category 2)

Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

After ingestion or inhalation, initial symptoms may be only that of mild intoxication, but may become severe after 12 or 18 hours.

Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

2.2.2 - Potential Health Effects

Causes severe eye irritation. (Eye damage/irritation, category 2A)

Irritating to skin. (Skin corrosion/irritation, category 2)

May be harmful if absorbed through the skin. (Acute toxicity, dermal, category 5)

Irritating to mucous membrane and upper respiratory system.

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

May be harmful if swallowed. (Acute toxicity, oral, category 5)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Picric Acid in Acetonitrile/Methanol Blend

			ACGIH -TLV (mg/m³)			OSHA -PEL (mg/m³)		
Analyte	CAS #	% Concentration	TWA	STEL	Skin	TWA	STEL	Skin
Picric acid	88-89-1	0.010	0.1			0.1		
Acetonitrile	75-05-8	49.995				70		
Methanol	67-56-1	49.995				260		

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids
Bases
Oxidizers

Hazardous Decomposition: Hydrogen cyanide (HCN); Carbon oxides; Nitrogen oxides Forms HCN when heated to about 120 °C

Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources

SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

No specific human health toxicity information is available for this product. Information provided is based on similar products.

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No specific environmental toxicity information is available for this product. It is not expected to be an environmental concern.

No other information related to the ecological properties of this product is available at this time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable liquid, n.o.s. (Acetonitrile, Methanol)

Poison by Inhalation: No

Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

All components are listed on the TSCA Inventory.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend : N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

0 - Minimal
1 - Slight
2 - Moderate
3 - Serious
4 - Severe

* - Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe
Category 5 - Least Severe

**** End of Document ****

Reagent

8330Surrogate_00110

eurofins | Environment Testing TestAmerica

8330Surrogate_00110

good ✓

Reagent ID: 8330Surrogate_00110

		Expiration Date:	05/17/2020
Description:	10ug/mL 1,2-Dinitrobenzene	Laboratory:	Eurofins TestAmerica, Denver
No. of Bottles:	1	Prepared By:	Bourgery, David F
Storage Location:	Explosives Prep	Solvent:	Acetonitrile
Reagent Volume:	250.000 mL	Solvent Lot:	ACN_00223
Creation Date:	12/17/2019		
Open Date:			
Container(s):	6017392		

WL 88127 → C18

Comment: Stored Frozen. 6 month expiration date. Take 1mL of 1,2 Dinitrobenzene (8330SurrStock) and Dilute to 100 mL in ACN. Mulitply recipe as needed.

POS #6

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
1,2-Dinitrobenzene	8330SurrStkSS_00145	03/31/2023	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00145	03/31/2023	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00158	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00158	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00160	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00160	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00161	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00161	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL

Source Reagents

Reagent	Description	Type	Expiration	Vendor	Vendor Lot #	Vendor Cat Lot #	Volume Used	Volume Units
8330SurrStkSS_00145	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	03/31/23	Restek	A0135839	31453	0.25000	mL
8330SurrStkSS_00158	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0146866	31453	0.25000	mL
8330SurrStkSS_00160	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0150790	31453	1.00000	mL
8330SurrStkSS_00161	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0150790	31453	1.00000	mL

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromna\Denver\ChromData\CHHPLC_X\20191220-88127.b\12200006.D

Lims ID: C18column:B16162 Inj. Date: 20-Dec-2019 11:19:02

Worklist ID: 280-0088127-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
$ 9 1,2-Dinitrobenzene	0.4000	0.3843	96.1	83-119	63-127	

Samples for Limit Group: 1, Lims Prep Method: 3535

280-132090-A-2-A	280-132090-A-3-A	280-132090-A-4-A
280-132090-A-5-A	280-132090-A-6-A	280-132090-A-7-A
280-132090-A-8-A	280-132031-A-1-A	280-132031-A-2-A
280-132031-A-3-A	280-132031-A-4-A	280-131963-A-1-B
280-131963-B-2-A	280-131963-A-3-A	280-131963-B-4-A
280-131977-A-1-A	280-131977-B-2-A	280-131977-B-3-A
280-131977-A-4-A	280-131977-A-5-A	280-131977-A-6-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-131996-A-4-A	280-131996-A-5-A	280-131996-A-6-A
280-131996-A-7-A	280-131996-A-8-A	280-131996-A-9-A
280-131996-A-11-A	280-131996-A-12-A	280-131996-A-13-A
280-131996-A-14-A	280-131996-A-15-A	280-131996-A-1-A
280-131996-A-2-A	280-131996-A-3-A	280-131996-A-10-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-132013-A-1-A	600-197143-C-1-A	280-131992-C-1-A
280-131988-A-1-A	280-131988-A-2-A	280-131988-A-3-A
280-131988-B-4-A		

Reagent

8330Surrogate_00114

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\G2_LUNA\20200507-91339.b\05070004.D

Lims ID: CaCl2_Sol_00054 Inj. Date: 07-May-2020 12:25:53

Worklist ID: 280-0091339-004 Instrument: CHHPLC_G2_LUNA

Method: G2_8330_Luna

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.2000	0.1868	93.4	83-122

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-135356-A-2-D

Reagent

8330Surrogate_00117

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200619-92580.b\06190003.D

Lims ID: MeOH=0000246945 Inj. Date: 19-Jun-2020 15:23:58

Worklist ID: 280-0092580-003 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
$ 9 1,2-Dinitrobenzene	0.2500	0.2587	103.5	83-119	

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-137400-D-1-A 280-137400-D-2-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-137338-A-1-A 280-137338-A-2-A 280-137338-A-3-A

280-137338-A-4-A 280-137401-A-1-A 280-137401-A-2-A

Reagent

8330SurrStkSS_00145

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0135839

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKBW2921V)		+/- 56.0822	µg/mL	Unstressed
	Purity 99%			+/- 57.3938	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

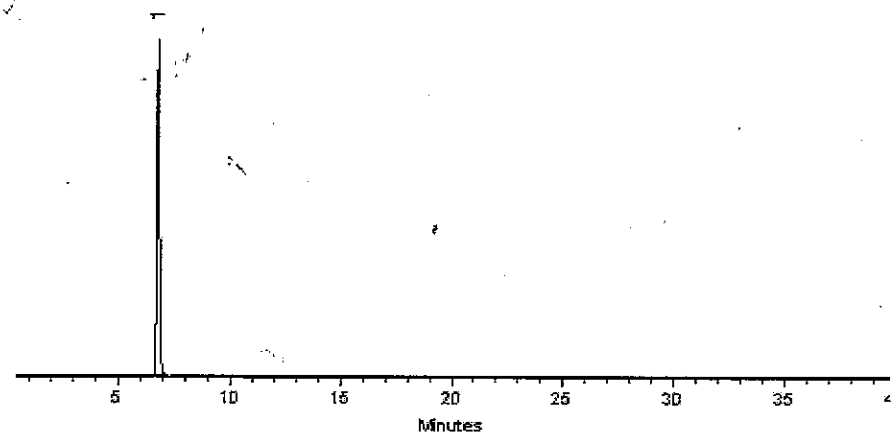
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J Lidgett

Dustin Lidgett - Mix Technician **Date Mixed:** 05-Mar-2018 **Balance:** 1128360905

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 09-Mar-2018

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\,stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

Reagent

8330SurrStkSS_00157

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0146866

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,003.0 µg/mL	+/- 5.9575 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.2504 µg/mL	Unstressed
	Purity 99%		+/- 57.5660 µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

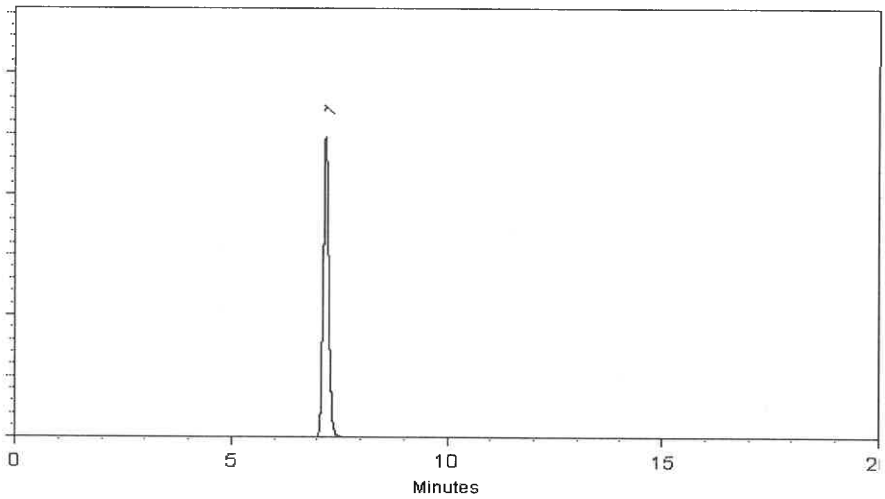
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Date Mixed: 11-Mar-2019 **Balance:** 1128353505

Fang-Yun Lo - QC Analyst

Date Passed: 14-Mar-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330SurrStkSS_00158

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0150790

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,003.0 µg/mL	+/- 5.9575	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.2504	µg/mL	Unstressed
	Purity 99%		+/- 57.5660	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

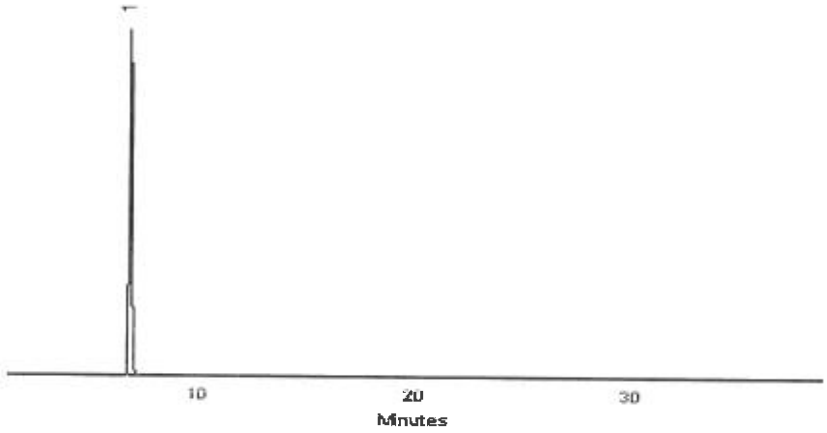
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330SurrStkSS_00160

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0150790

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,003.0 µg/mL	+/- 5.9575	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.2504	µg/mL	Unstressed
	Purity 99%		+/- 57.5660	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

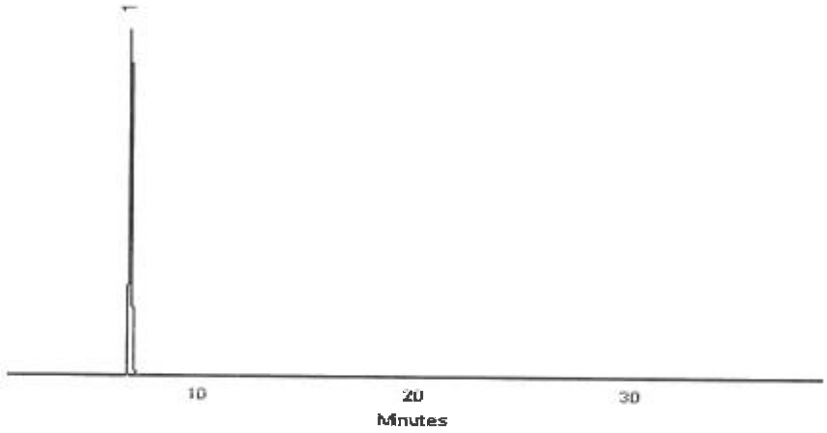
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330SurrStkSS_00161

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0150790

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,003.0 µg/mL	+/- 5.9575	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.2504	µg/mL	Unstressed
	Purity 99%		+/- 57.5660	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

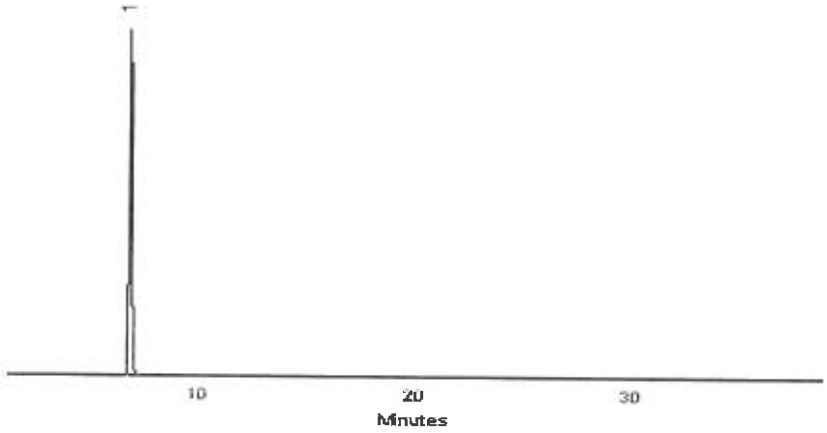
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330SurrStkSS_00170

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0155113

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene		1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKCH6067)		+/-	56.3065	µg/mL	Unstressed
	Purity 99%			+/-	57.6234	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

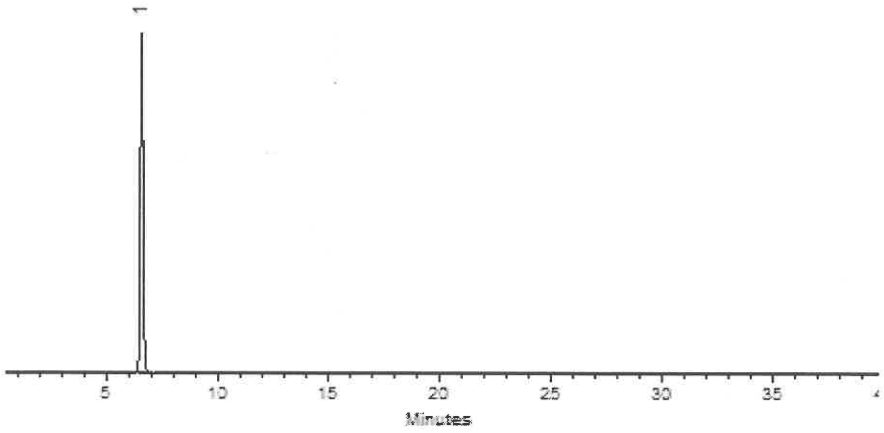
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330SurrStkSS_00171

110 Benner Circle
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Tel: (800)356-1688
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0155113

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene		1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKCH6067)		+/-	56.3065	µg/mL	Unstressed
	Purity 99%			+/-	57.6234	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

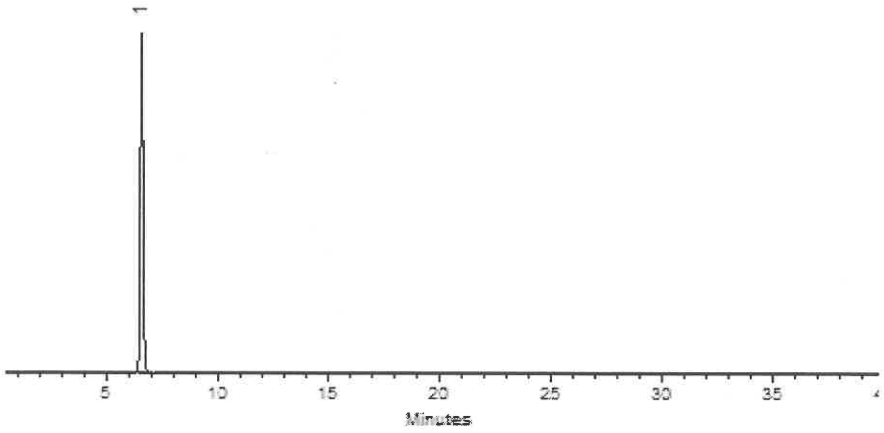
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330SurrStock_00164

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 216071012
Solvent: Methanol
Hazards: **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

Danger 2

Date Certified: Jul 1, 2016
Expiration: Jul 1, 2026
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	100.1	1001

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] All weights are traceable through NIST, Test No. 822-275872-11

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

Reagent

Alk stk std_00017

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	SS148	Quality Test / Release Date	03/20/2019
Lot Number	191517	Expiration Date	Mar/2021
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, Colorless liquid
NORMALITY		Inclusive Between 0.995 - 1.000	0.999
COLOR	APHA	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC BR ICV_00018

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 2907E22 **Product Number:** 1180

Manufacture Date: JUL 23, 2019
Expiration Date: JAN 2021

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months
1180-8	250 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Sharon Travers (07/23/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC CL cal_00060

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-176CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1001 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 09141H. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1004 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_3^-	<0.06
F^-	<0.05	$PO4^{-3}$	<0.03
NO_2^-	<0.05	$SO4^{-2}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: JAN - - 2020 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
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Reagent

IC FL cal_00014

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F^-

Lot Number: 4905E80 **Product Number:** 3173

Manufacture Date: MAY 23, 2019
Expiration Date: NOV 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (05/23/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC SO4 ICV_00021

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	100819m
ISSUE DATE:	August 23, 2019
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0010 g/mL at 19.7°C and 757 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 08/06/2021**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00059

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-197SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1001 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# MAN1018SO4. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 999 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.006	NO_2^-	<0.004
Cl^-	<0.01	NO_3^-	<0.006
F^-	<0.008	$PO4^{-3}$	<0.01

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: JAN - - 2020 Certifying Officer: Katherine Cullinan, QC Manager

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Rev. 0

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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Reagent

IC sulfatecal_00060

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-197SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1001 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# MAN1018SO4. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 999 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.006	NO_2^-	<0.004
Cl^-	<0.01	NO_3^-	<0.006
F^-	<0.008	$PO4^{-3}$	<0.01

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: MAY - - 2020 Certifying Officer: Katherine Cullinan, QC Manager

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Rev. 0

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Reagent

MNX,TNX,DNX_00032

Agilent

Certificate of Analysis
ISO Guide 34

Custom Standard

Product Number:	CUS-23984			**Page:**	1 of 1
Lot Number:	CS-5628	**Lot Issue Date:**	16-Nov-2018	**Expiration Date:**	31-Dec-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)		RM12428	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane		RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane		RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Managment System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

ORG ver 1.1

250 Smith Street North Kingstown, Rhode Island 02852 **www.ultrasci.com**

Reagent

MNX,TNX,DNX_00042

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 0.6 µg/mL

Matrix: acetonitrile

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006516106

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00043

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 0.6 µg/mL

Matrix: acetonitrile

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006516106

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00046

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 0.6 µg/mL

Matrix: acetonitrile

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006516106

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

NH3 CAL STD_00031

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 2902E25 **Product Number:** 5455

Manufacture Date: FEB 25, 2019
Expiration Date: AUG 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months
5455-32	1 L natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Tara Jones (02/25/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00027

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	N2-NH669544
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.0000%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1005 ± 3 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

Assay Method #2 **997 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

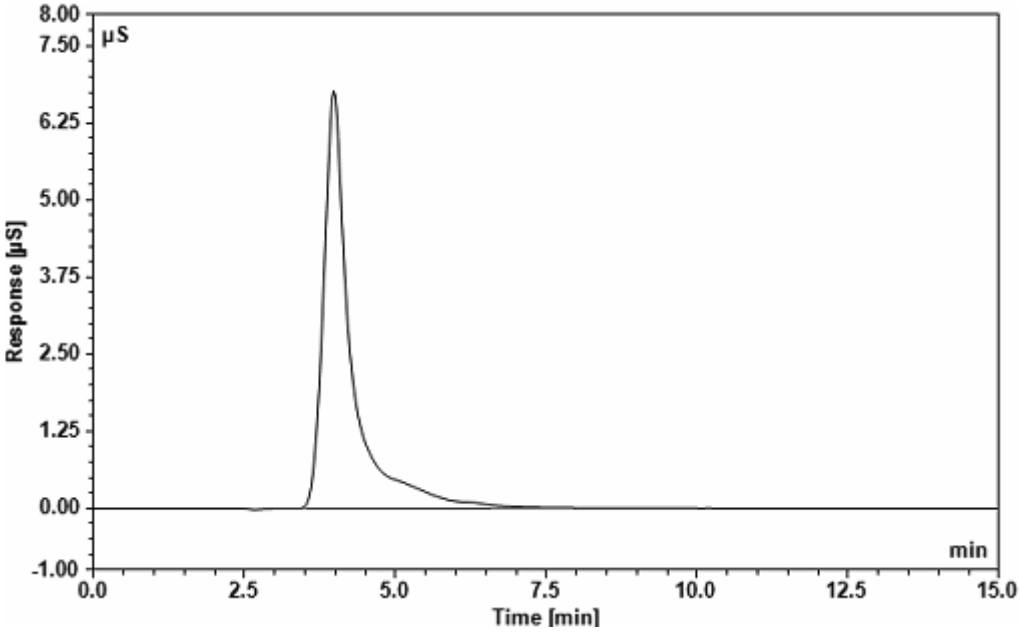
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	**Eluent:**	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	**Eluent Flow Rate:**	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35 °C
		Cell Temp:	35 °C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	8 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	8 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 01, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 01, 2022**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

James King Jr
Chemist, Technical Manager

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

NOXT ICV STD_00023

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrate as N (NO_3-N)
CATALOG NUMBER:	052 -125 mL; 991 - 500 mL
LOT NUMBER:	130319m
ISSUE DATE:	April 3, 2019
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Nitrate (KNO_3)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0041 ± 0.0004 g/mL at 18.4°C and 754 mm Hg
TRACEABILITY[3]:	101%
NIST/SRM:	3185 Nitrate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 3/11/2021**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PicricARestek_00090

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0131892

Description : Picric Acid Standard

1000µg/mL, Methanol, 1mL/ampul *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid **CAS #** 88-89-1 **Purity** 97% (Lot 06130CU)	1,004.9 µg/mL	+/- 5.9689	µg/mL	Gravimetric
			+/- 55.0525	µg/mL	Unstressed
			+/- 64.1967	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
This is a derivatized analysis.

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

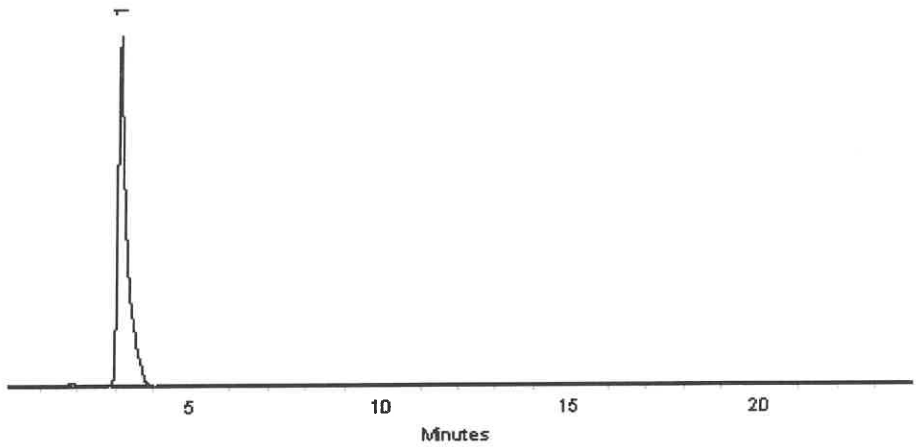
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 25-Oct-2017 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 30-Oct-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

RSK175methane_00010

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF BATCH ANALYSIS

Grade of Product: CP

Customer:	SIGMA-ALDRICH		
Part Number:	ME CPP14C514	Reference Number:	160-401480003-1
Cylinder Analyzed:	ST0000198540	Cylinder Volume:	14.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Apr 16, 2019	Valve Outlet:	160
Lot Number:	160-401480003-1		

Expiration Date: Apr 16, 2022

ANALYTICAL RESULTS

Component	Requested Purity	Certified Concentration
METHANE	> 99.0 %	> 99.0 %

Cylinders in Batch:

ST0000198540, ST0000198541, ST0000198542, ST0000198543

Notes:MANUFACTURE DATE 4-16-2019
PO# P481562
P/N 22562

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

Approved for Release

Reagent

RSK7gasMathes_00027

MATHESON
ask. . .The Gas Professionals™

Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

Manufacturing Location
200 ALESSIO DR
JOLIET, IL 60433

Product: Multi-Component Mixture

Grade: CERTIFIED
MTG Part No: G2682238

Cylinder Size: 4
Valve: CGA 350 SS

Contents:
Net: 7.57 ft³, 0.21 m³

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)
*DL955755

	Requested Concentration	Certified Concentration	Units	Blend Tolerance	Certified Accuracy
Butane	1.00	0.995	%	±10%	±2%
Acetylene	1.00	0.995	%	±10%	±2%
Isobutylene	1.00	0.995	%	±10%	±2%
Propane	1.00	0.995	%	±10%	±2%
Ethene	1.00	0.996	%	±10%	±2%
Ethylene	1.00	0.996	%	±10%	±2%
Methane	1.00	0.999	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

*** Indicates the actual cylinder(s) analyzed.**

Lot No: 1029602081C
Fill Date: 09/04/2019
Expiration Date: 09/09/2021

Analysis Date: 09/09/2019

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com

Jennifer Fender - Analyst — 09/09/2019 Date

Jennifer Fender - QA Approval — 09/09/2019 Date

Reagent

RSK7gasMathes_00031

MATHESON

ask. . .The Gas Professionals™

Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

Manufacturing Location
1700 SCEPTER ROAD
WAVERLY, TN 37185

Product: Multi-Component Mixture

Grade: CERTIFIED

MTG Part No: G2682238

Cylinder Size: 4
Valve: CGA 350 SS

Contents:
Net: 7.57 ft³; 0.21 m³

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)
*DI.039162

	Requested Concentration	Certified Concentration	Units -	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.01	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	1.01	%	±10%	±2%
Ethylene	1.00	1.00	%	±10%	±2%
Methane	1.00	1.00	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

* Indicates the actual cylinder(s) analyzed.

Lot No: 9300606746
Fill Date: 02/23/2020
Expiration Date: 03/09/2022

Analysis Date: 03/09/2020

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — Date: 03/09/2020

Merich Boyett - QA Approval — Date: 03/09/2020

Reagent

SFD CAL STK_00006

Version	02
Molecular weight	240.18
Quality Test / Release Date	09/06/2018
Molecular Formula	Na2 S . 9 H2 O
CAS No	1313-84-4
Linear Formula	Na2S.9H2O
Flash Point (°C)	

Certificate of Analysis

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Unless otherwise stated, these products are not intended for dialysis, parenteral, or injectable use without further processing. The following are the actual analytical results obtained:

Catalog Number	38706	**Quality Test / Release Date** 09/06/2018
Lot Number	A0390872	
Description	Sodium sulfide nonahydrate,98+%,extra pure	
Country of Origin	INDIA	
Declaration of Origin	synthetic	

BSE/TSE comment	
Chemical Comment	

Result name	Units	Specifications	Test Value
Appearance (Color)		Colorless to light yellow	Light yellow
Appearance (Form)		Adhering crystals and/or chunks	Adhering crystals and chunks
Titration Iodimetric		32.0 to 38.0 % (Na2S)	35.9 % (Na2S)
Total nitrogen (as N)		=<0.005 %	=<0.005 %
Sulfite (as SO2)		=<2000 ppm	=<2000 ppm
Thiosulphate (S2O3)		=<5000 ppm	=<5000 ppm

CERTIFIED BY

L. Van den Broek, QA Manager

Issued: 09-06-2018

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Regent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

Reagent

TKN CAL STD_00017

nsi lab solutions
protect more. test more.
7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC LCS Std_00048

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: 0006465171

Lot Issue Date: 10-May 2019
Expiration Date: 30-Jun 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1001 ± 5 µg/mL	NAA02099; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED ISO Guide 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: 0006465171

Lot Issue Date: 10-May 2019
Expiration Date: 30-Jun 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

RSK_175_DOD5

Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06222003.D

Lab ID: LCS 280-499633/2 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0730	0.0797	109	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: MB 280-499633/4

Matrix: Water Date Extracted:

Lab File ID:(1) 06222004.D Lab File ID:(2) 06222004.D

Date Analyzed:(1) 06/22/2020 11:56 Date Analyzed:(2) 06/22/2020 11:56

Instrument ID:(1) VGC_J Instrument ID:(2) VGC_J

GC Column:(1) HP-Plot Q ID: 0.53(mm) GC Column:(2) Rt-Alumina K ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-499633/2	06/22/2020 11:40	06/22/2020 11:40
PZ018-20A	280-137848-1	06/22/2020 18:38	06/22/2020 18:38
G0090-20A	280-137848-2	06/22/2020 18:55	06/22/2020 18:55

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-499633/2

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/22/2020 11:40 Date Analyzed (2): 06/22/2020 11:40

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		3.17	3.15	3.23	0.0797		0.8
	2		1.25	1.22	1.30	0.0790		

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID: PZ018-20A
Lab Sample ID: 280-137848-1
Matrix: Water
Lab File ID: 06222028.D
Analysis Method: RSK-175
Date Collected: 06/16/2020 15:15
Sample wt/vol: 18(mL)
Date Analyzed: 06/22/2020 18:38
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: HP-Plot Q
ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 499633
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222028.D				
Lims ID:	280-137848-H-1				
Client ID:	PZ018-20A				
Sample Type:	Client				
Inject. Date:	22-Jun-2020 18:38:49	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-137848-H-1				
Misc. Info.:	280-0092637-028				
Operator ID:	gm	Instrument ID:	VGC_J		

Method:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m		
Limit Group:	GCV - RSK 175		
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175		
Last Update:	24-Jun-2020 11:48:11	Calib Date:	16-May-2020 13:08:56
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D		

Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)	Det: GC FID1A
Column 2 :	HP-PLOT/Q (0.53 mm)	Det: GC FID2B
Process Host:	CTX1017	

First Level Reviewer: meierg Date: 24-Jun-2020 10:40:30

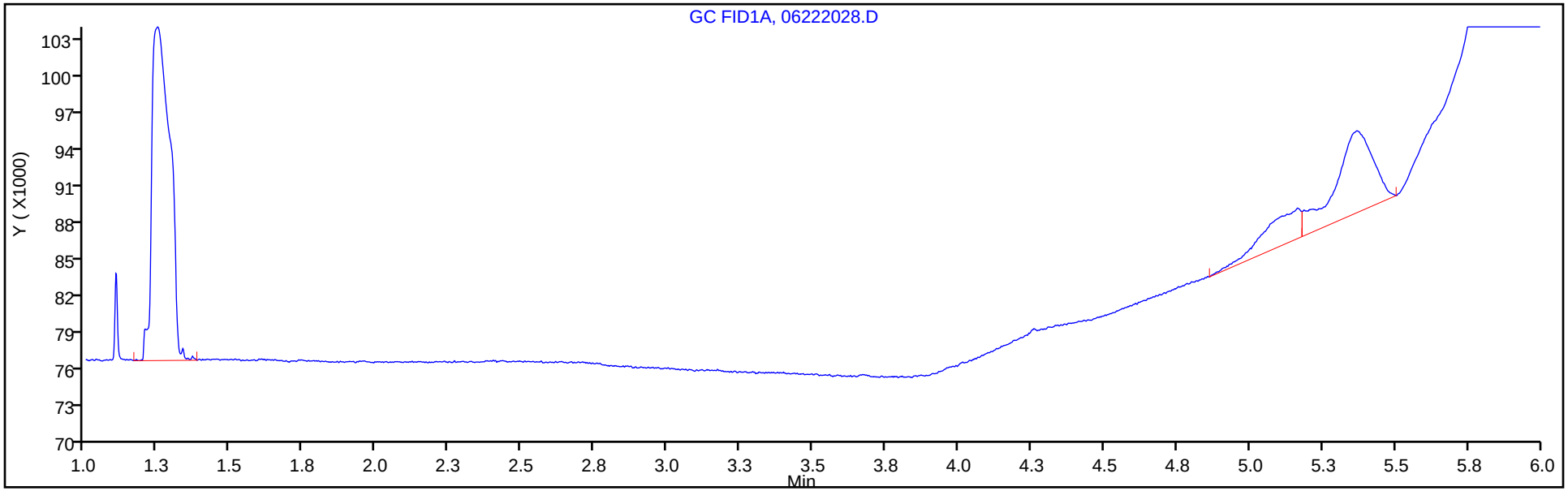
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1	4.098				ND	
2	5.458					
2 Methane						
1	1.258				ND	
2	3.193					
3 Ethane						
1	1.516				ND	
2	4.312					
4 Ethylene						
1	1.786				ND	
2	4.042					
5 Propane						
1	2.483				ND	
2	5.927					
6 Acetylene						
1	3.938				ND	
2	4.145					
7 Butane						
1	4.233				ND	
2	7.368					
8 isobutylene						
1	5.133				ND	
2	7.222					

Report Date: 24-Jun-2020 11:48:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

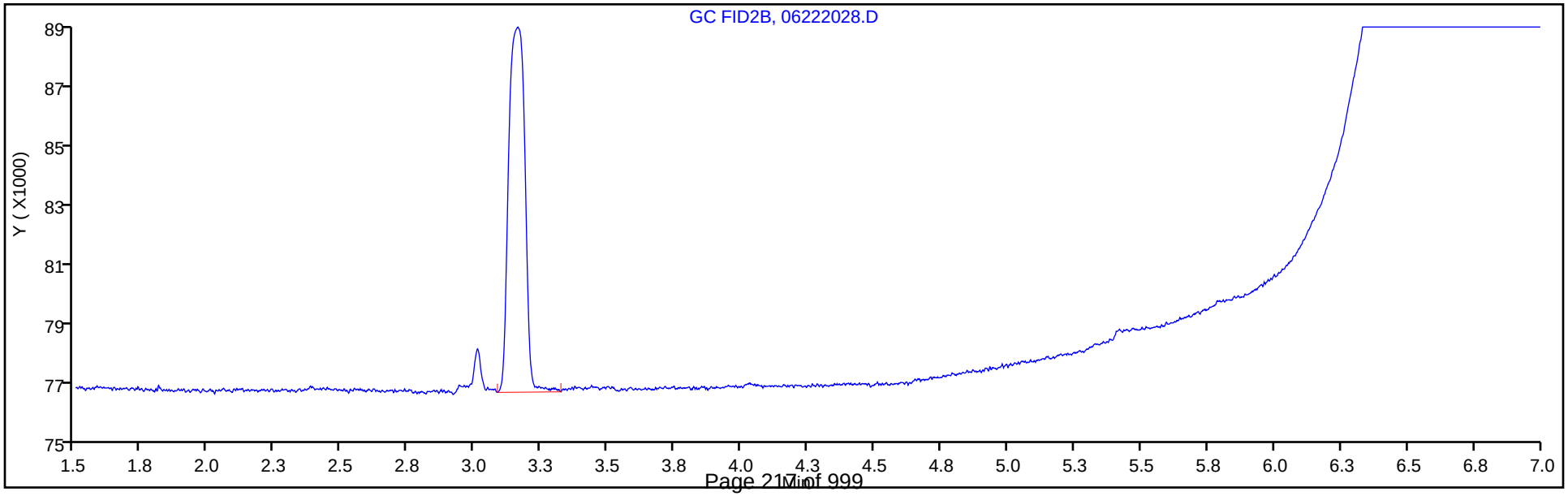
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222028.D				
Injection Date:	22-Jun-2020 18:38:49	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	280-137848-H-1	Lab Sample ID:	280-137848-1	Worklist Smp#:	28
Client ID:	PZ018-20A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Client Sample ID: G0090-20A Lab Sample ID: 280-137848-2

Matrix: Water Lab File ID: 06222029.D

Analysis Method: RSK-175 Date Collected: 06/16/2020 14:55

Sample wt/vol: 18(mL) Date Analyzed: 06/22/2020 18:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 499633 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222029.D				
Lims ID:	280-137848-G-2				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	22-Jun-2020 18:55:07	ALS Bottle#:	29	Worklist Smp#:	29
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-137848-G-2				
Misc. Info.:	280-0092637-029				
Operator ID:	gm	Instrument ID:	VGC_J		

Method:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m		
Limit Group:	GCV - RSK 175		
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175		
Last Update:	24-Jun-2020 11:48:11	Calib Date:	16-May-2020 13:08:56
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D		

Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)	Det: GC FID1A
Column 2 :	HP-PLOT/Q (0.53 mm)	Det: GC FID2B
Process Host:	CTX1017	

First Level Reviewer: meierg Date: 24-Jun-2020 10:40:34

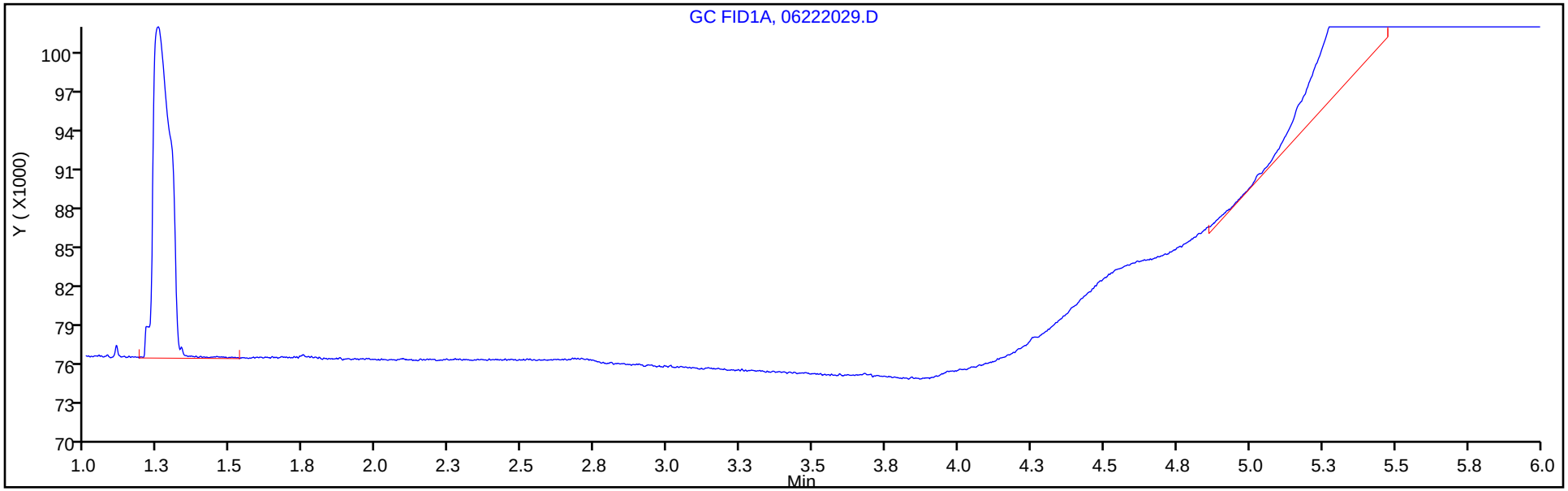
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.098			ND	
2		5.458				
2 Methane						
1		1.258			ND	
2		3.193				
3 Ethane						
1		1.516			ND	
2		4.312				
4 Ethylene						
1		1.786			ND	
2		4.042				
5 Propane						
1		2.483			ND	
2		5.927				
6 Acetylene						
1		3.938			ND	
2		4.145				
7 Butane						
1		4.233			ND	
2		7.368				
8 isobutylene						
1		5.133			ND	
2		7.222				

Report Date: 24-Jun-2020 11:48:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

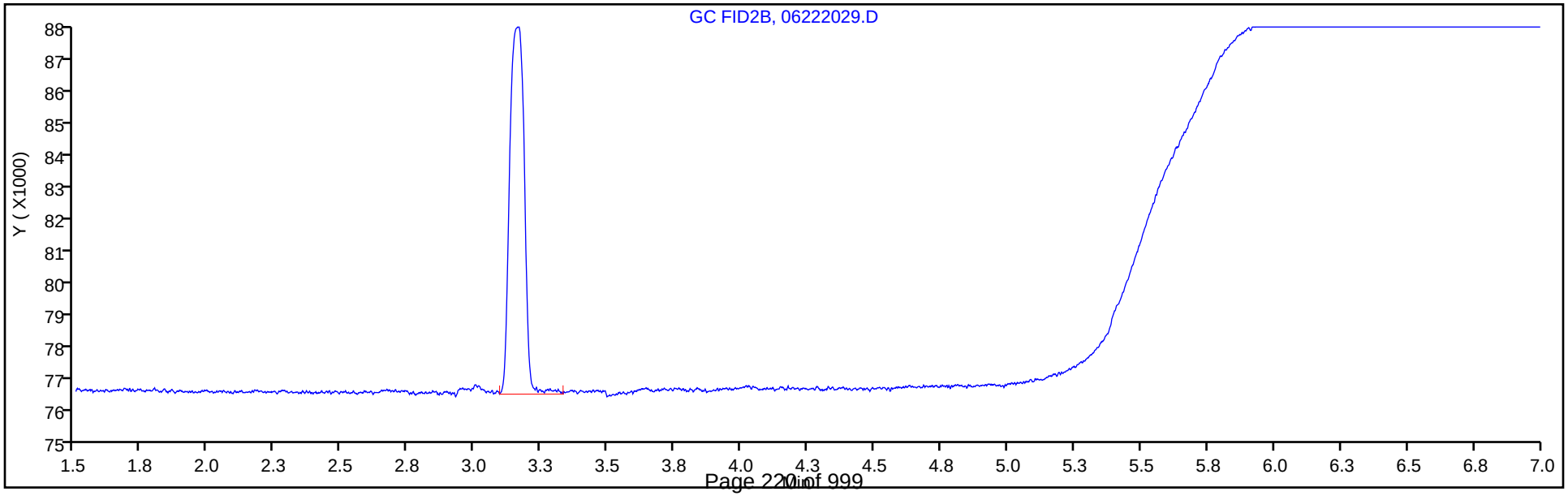
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222029.D				
Injection Date:	22-Jun-2020 18:55:07	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	280-137848-G-2	Lab Sample ID:	280-137848-2	Worklist Smp#:	29
Client ID:	G0090-20A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	1.250	1.251	1.248	1.249	1.250	1.250	1.243	1.248	1.245		1.210 - 1.290	1.248
Ethane	1.513	1.514	1.511	1.510	1.511	1.512	1.508				1.461 - 1.561	1.511
Ethylene	1.795	1.788	1.791	1.792	1.793	1.785	1.785				1.743 - 1.843	1.790
Acetylene	4.048	4.044	4.043	4.034	4.015	4.002	3.983				3.935 - 4.095	4.024

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	244228 139356 139547	206236 146223	177863 139400	150422 142004	Lin2	48790.6512	143733.270							0.9980		0.9900
Ethane	116248 135523	138788 141935	141875 135846	142086	Ave		136042.830				6.7		20.0			
Ethylene	95153 109903	112972 114358	114801 109412	114895	Ave		110213.494				6.4		20.0			
Acetylene	32541 32001	35741 34987	35768 33689	35334	Ave		34294.2686				4.5		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Lin2	111434 21349465	188199 40706597	324614 256592942	2196261 1008615918	10173489	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethane	Ave	99432 38849075	237424 74364849	485411	3889050	18547040	0.855 274	1.71 547	3.42	27.4	137
Ethylene	Ave	75924 29199476	180285 55873290	366405	2933658	14030935	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	24105 8293493	52951 15971476	105983	837564	3792795	0.741 237	1.48 474	2.96	23.7	119

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2020 10:57:08 ALS Bottle#: 1 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 1
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	111434	0.4563	0.4358	
2	3.180	3.172	0.008	47082	0.4563	0.4350	
						RPD = 0.19	
3 Ethane							Ma
1	1.513	1.511	0.002	99432	0.8553	0.7309	M
2	4.310	4.305	0.005	45402	0.8553	0.7436	a
						RPD = 1.73	
4 Ethylene							
1	1.795	1.793	0.002	75924	0.7979	0.6889	
2	4.038	4.032	0.006	33393	0.7979	0.6966	
						RPD = 1.12	
5 Propane							
1	2.535	2.528	0.007	162619	1.25	1.14	
2	5.932	5.928	0.004	68003	1.25	1.09	
						RPD = 4.45	
6 Acetylene							M
1	4.048	4.015	0.033	24105	0.7408	0.7029	
2	4.142	4.137	0.005	13119	0.7408	0.6072	M
						RPD = 14.61	
7 Butane							Ma
1	4.315	4.286	0.029	175523	1.65	1.66	M
2	7.382	7.375	0.007	85626	1.65	1.67	a
						RPD = 0.36	
8 isobutylene							
1	5.190	5.163	0.027	120280	1.60	1.35	
2	7.232	7.227	0.005	54094	1.60	1.30	
						RPD = 3.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

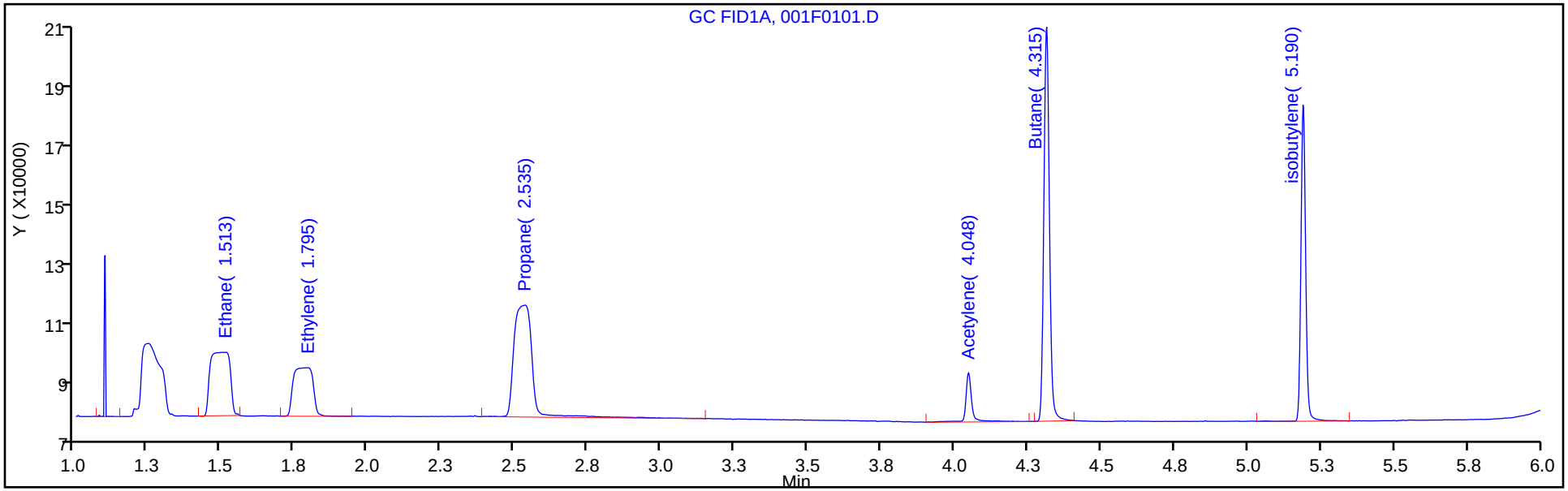
RSK7gasMathes_00031 Amount Added: 1.25 Units: uL

Report Date: 17-May-2020 08:59:46 Chrom Revision: 2.3 05-May-2020 17:48:18

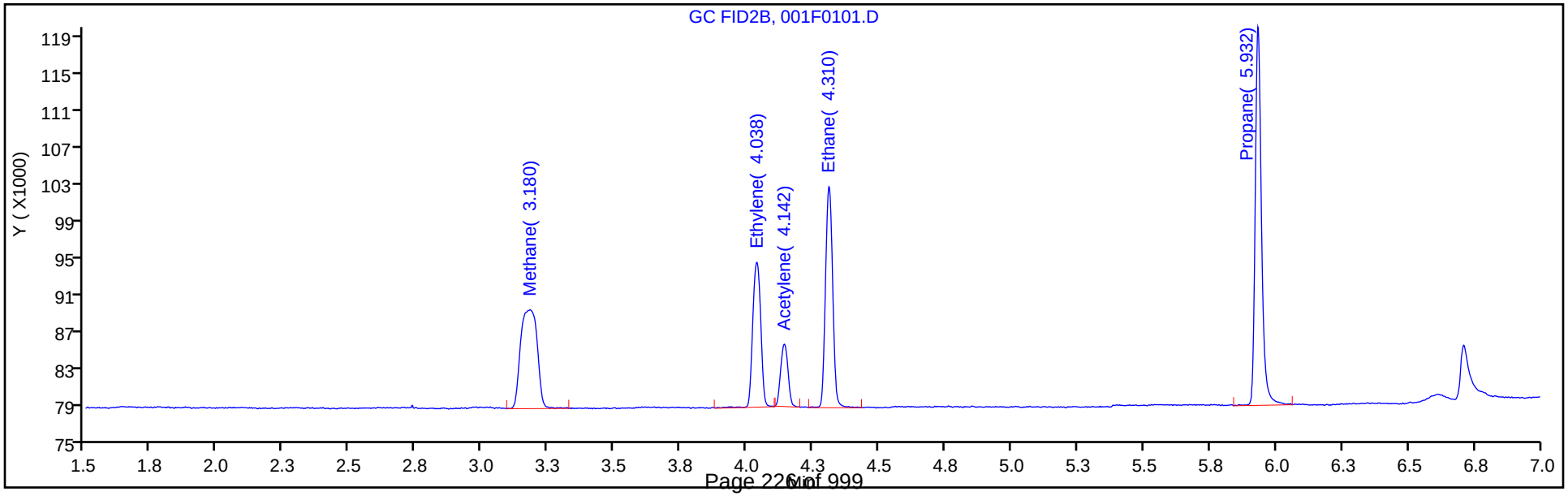
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L1			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

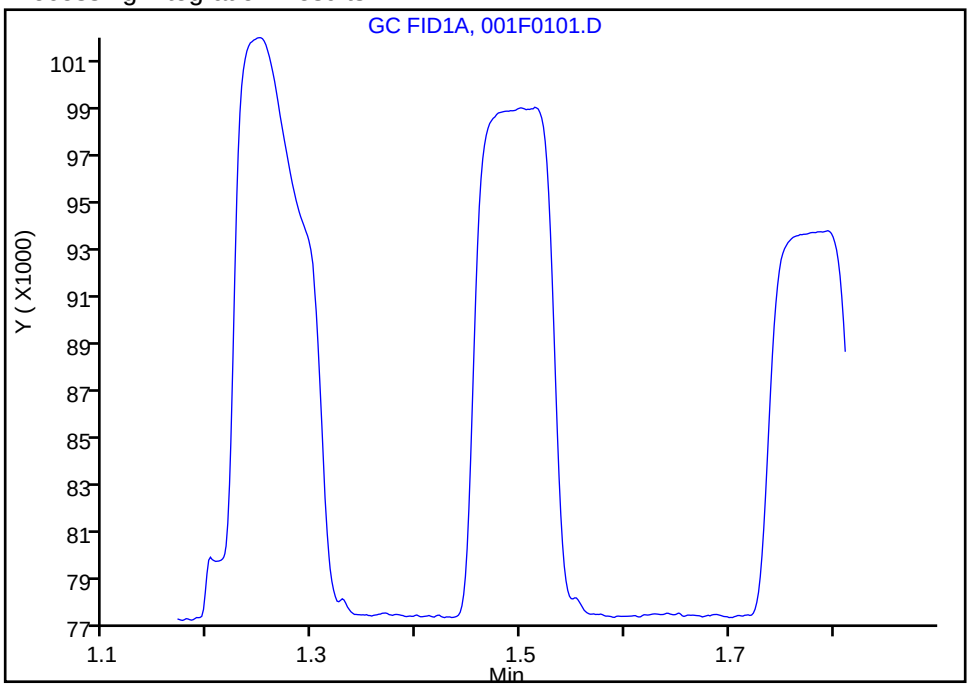
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethane, CAS: 74-84-0

Signal: 1

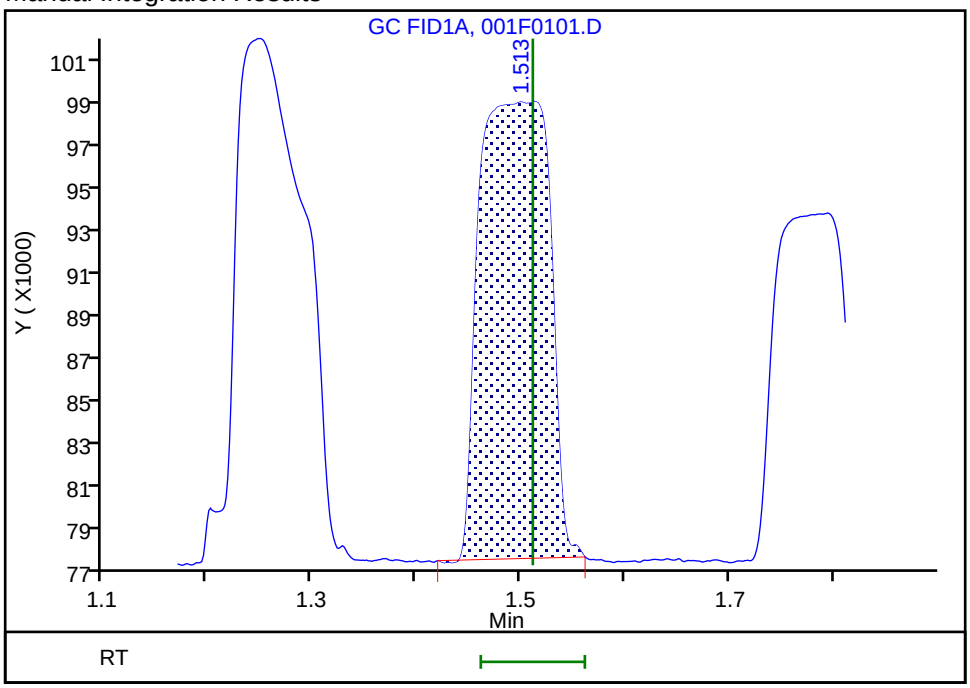
Not Detected
Expected RT: 1.51

Processing Integration Results



Manual Integration Results

RT: 1.51
Area: 99432
Amount: 0.730887
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:37:33
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2020 11:13:34 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.251	1.250	0.001	188199	0.9125	0.9699	
2	3.171	3.172	-0.001	83897	0.9125	0.9729	
						RPD = 0.31	
3 Ethane							
1	1.514	1.511	0.003	237424	1.71	1.75	
2	4.306	4.305	0.001	106974	1.71	1.75	
						RPD = 0.39	
4 Ethylene							M
1	1.788	1.793	-0.005	180285	1.60	1.64	
2	4.031	4.032	-0.001	77235	1.60	1.61	M
						RPD = 1.51	
5 Propane							
1	2.534	2.528	0.006	366612	2.51	2.56	
2	5.933	5.928	0.005	156230	2.51	2.49	
						RPD = 2.56	
6 Acetylene							Ma
1	4.044	4.015	0.029	52951	1.48	1.54	a
2	4.136	4.137	-0.001	31554	1.48	1.46	M
						RPD = 5.56	
7 Butane							
1	4.311	4.286	0.025	384054	3.31	3.24	
2	7.381	7.375	0.006	184917	3.31	3.22	
						RPD = 0.55	
8 isobutylene							
1	5.186	5.163	0.023	261296	3.19	2.93	
2	7.231	7.227	0.004	119878	3.19	2.88	
						RPD = 1.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

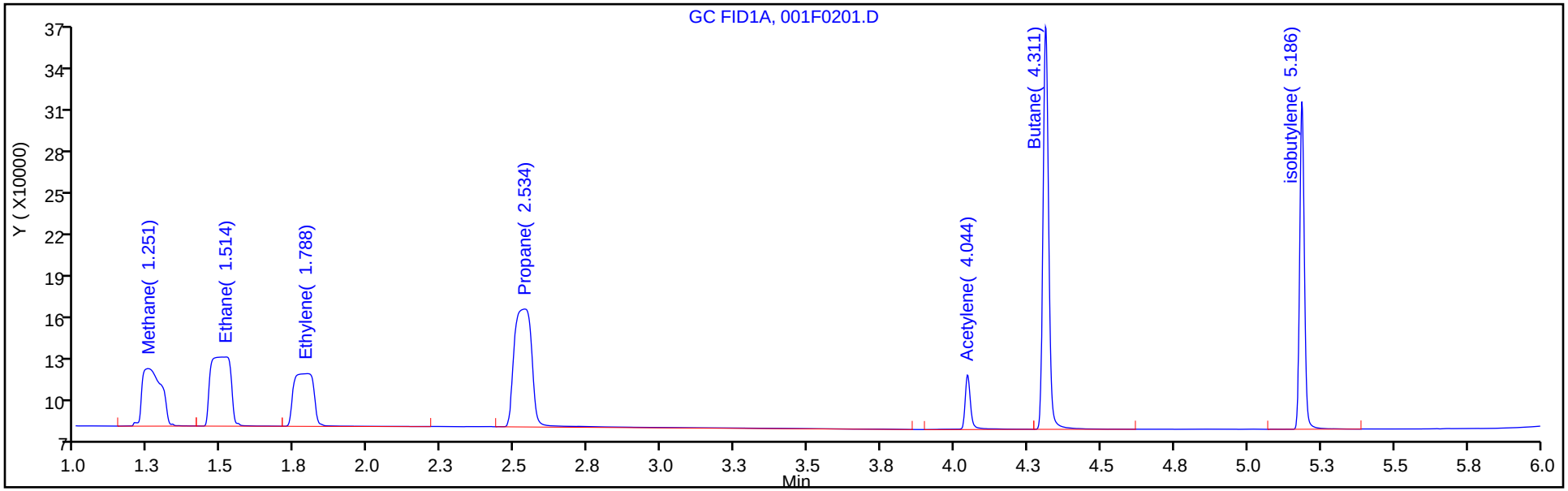
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

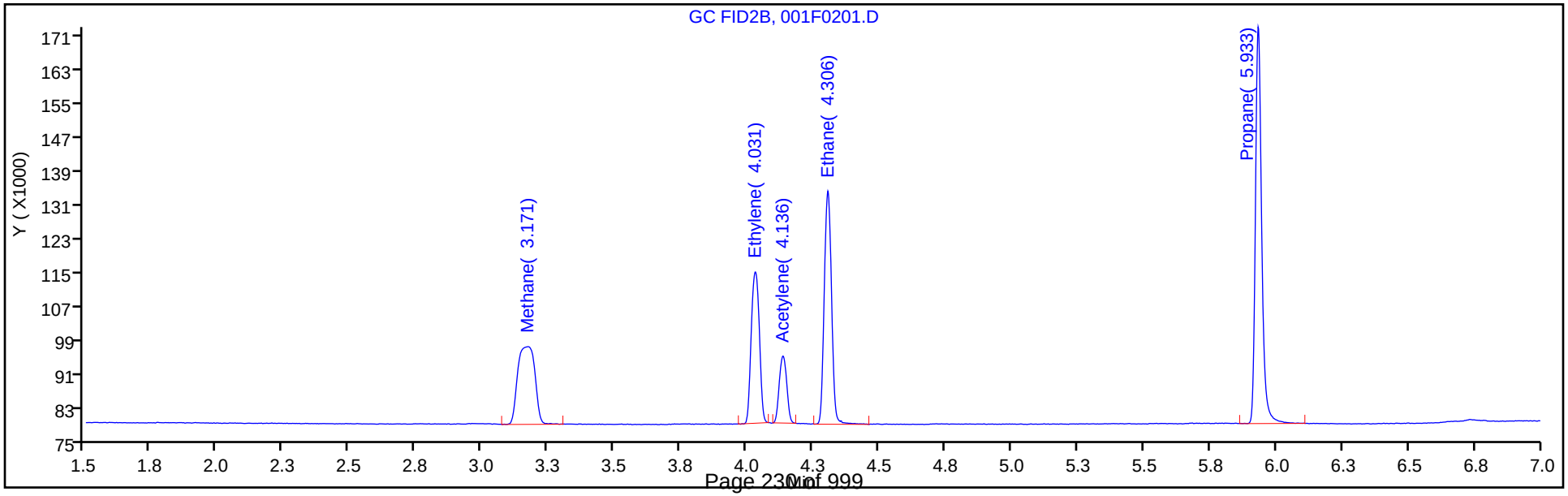
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L2			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

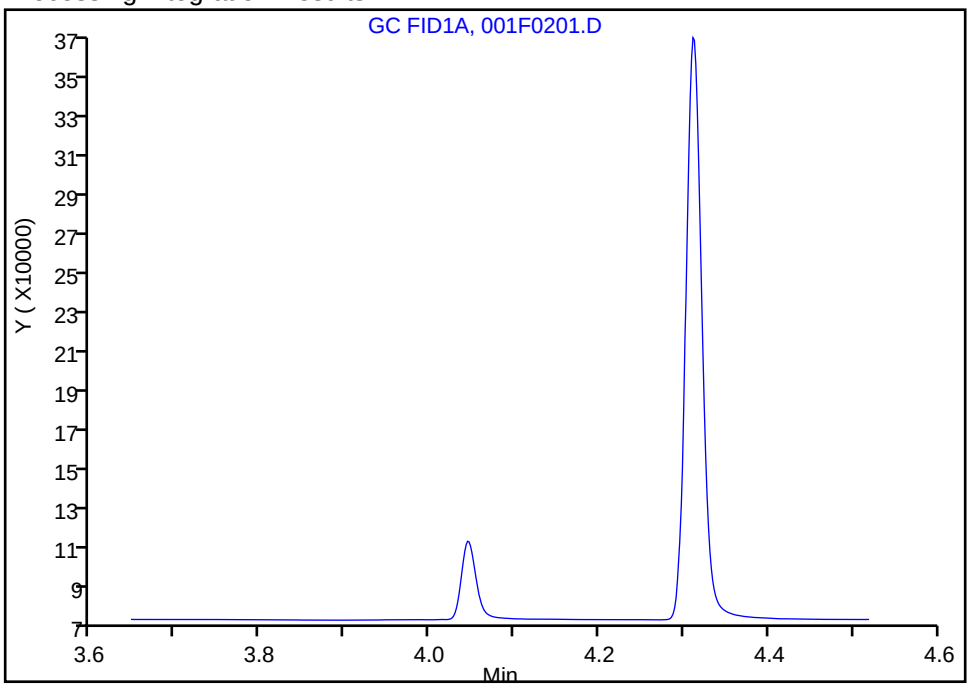
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

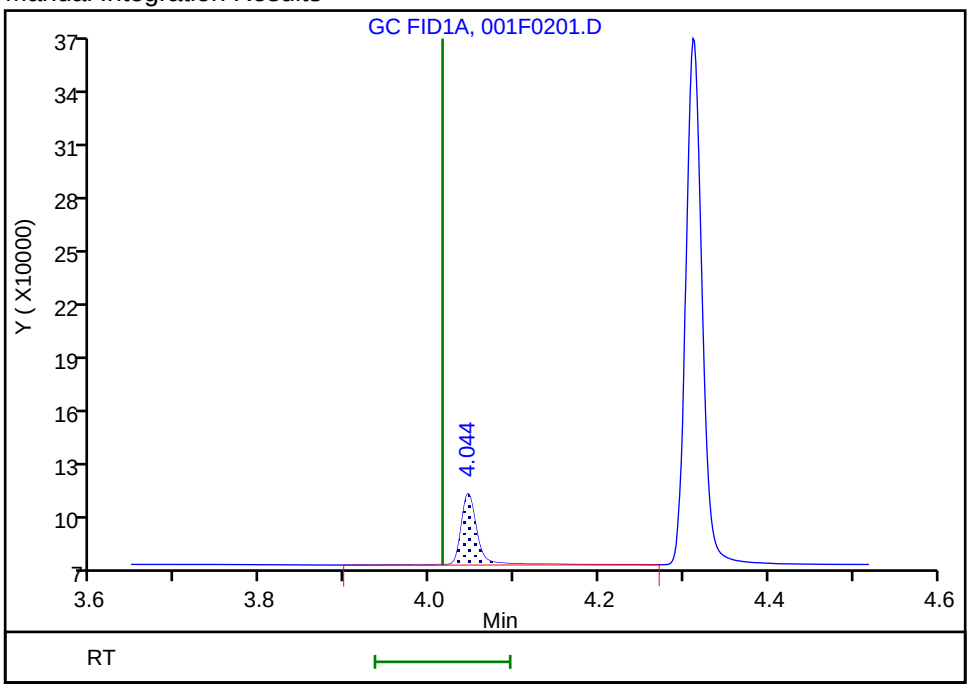
Processing Integration Results

RT: 4.01
Area: 0
Amount: 1.109766
Amount Units: ug/l



Manual Integration Results

RT: 4.04
Area: 52951
Amount: 1.544019
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:56
Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2020 11:30:01 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:47 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	324614	1.83	1.92	
2	3.169	3.172	-0.003	148689	1.83	1.92	
						RPD = 0.02	
3 Ethane							
1	1.511	1.511	0.000	485411	3.42	3.57	
2	4.306	4.305	0.001	217520	3.42	3.56	
						RPD = 0.15	
4 Ethylene							M
1	1.791	1.793	-0.002	366405	3.19	3.32	
2	4.031	4.032	-0.001	157852	3.19	3.29	M
						RPD = 0.95	
5 Propane							
1	2.531	2.528	0.003	754733	5.02	5.27	
2	5.933	5.928	0.005	326853	5.02	5.22	
						RPD = 0.95	
6 Acetylene							Ma
1	4.043	4.015	0.028	105983	2.96	3.09	a
2	4.136	4.137	-0.001	66161	2.96	3.06	M
						RPD = 0.92	
7 Butane							
1	4.311	4.286	0.025	850630	6.61	6.77	
2	7.379	7.375	0.004	410288	6.61	6.75	
						RPD = 0.31	
8 isobutylene							
1	5.184	5.163	0.021	571566	6.38	6.40	
2	7.229	7.227	0.002	264983	6.38	6.38	
						RPD = 0.42	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

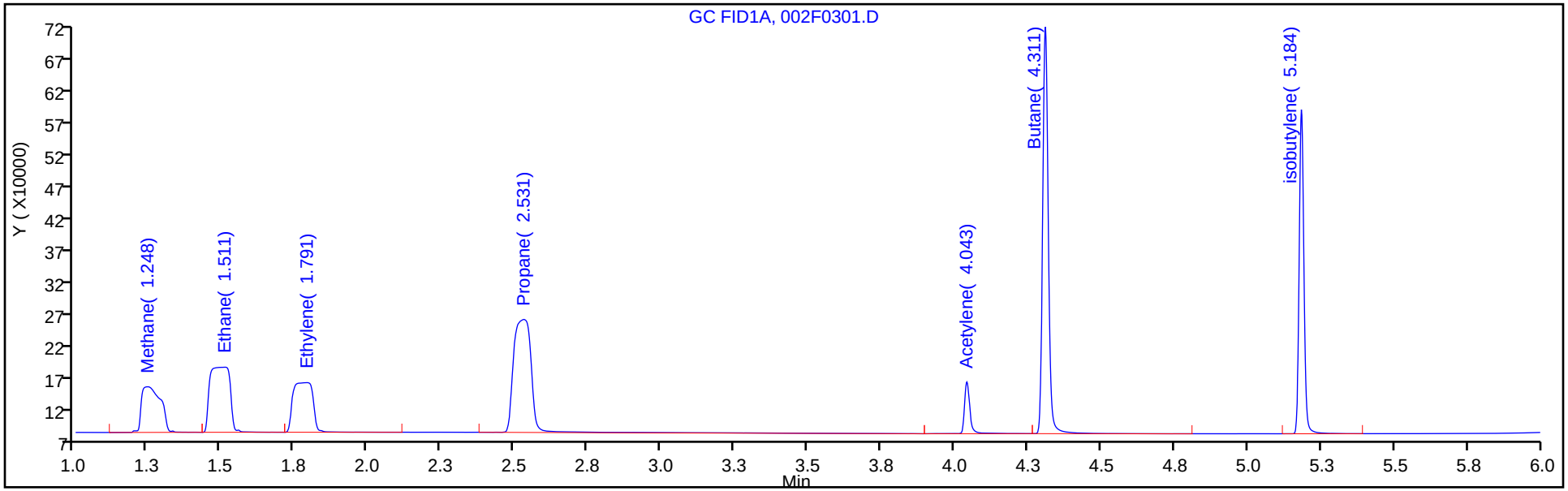
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

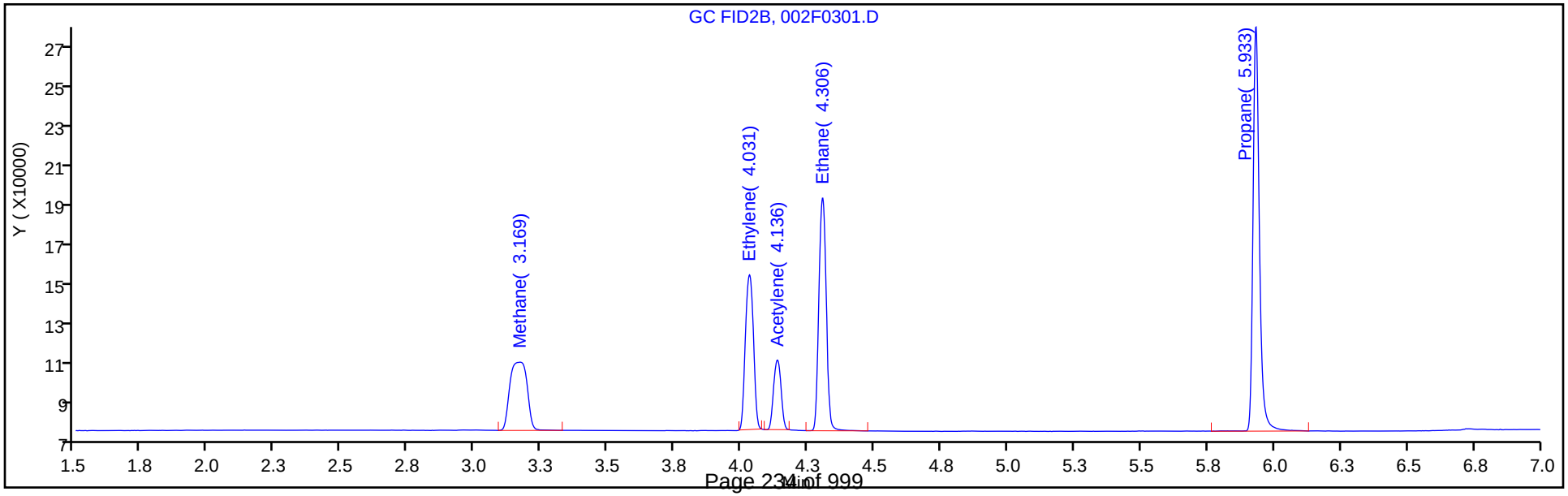
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L3			Worklist Smp#:	8
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

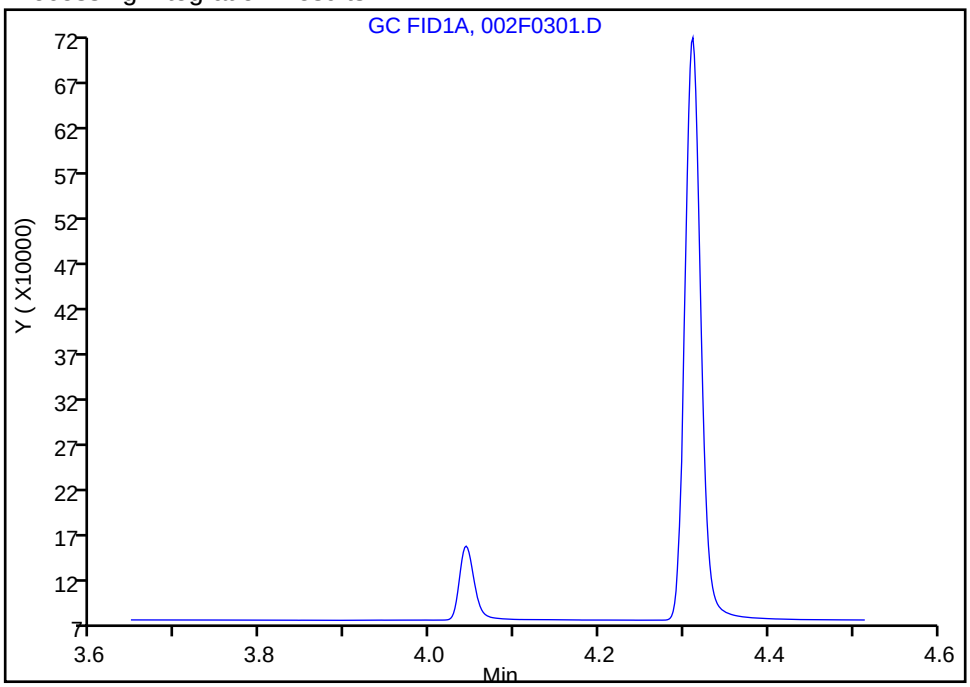
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

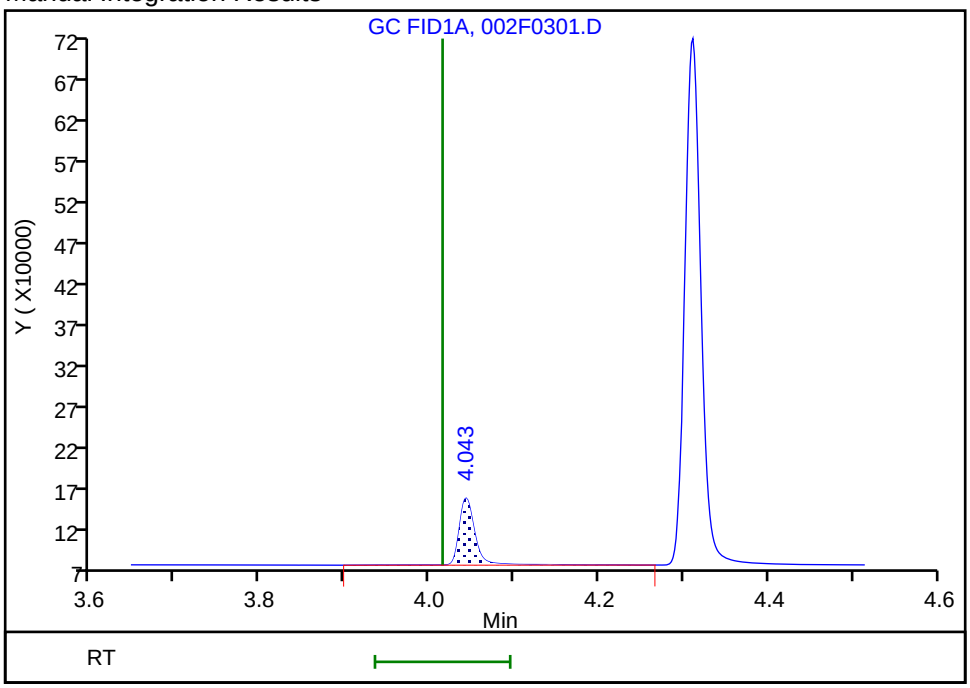
Processing Integration Results

RT: 4.01
Area: 0
Amount: 2.336755
Amount Units: ug/l



Manual Integration Results

RT: 4.04
Area: 105983
Amount: 3.090400
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:45:26
Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2020 11:46:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	2196261	14.6	14.9	
2	3.171	3.172	-0.001	1043265	14.6	15.0	
						RPD = 0.32	
3 Ethane							
1	1.510	1.511	-0.001	3889050	27.4	28.6	
2	4.306	4.305	0.001	1745027	27.4	28.6	
						RPD = 0.02	
4 Ethylene							
1	1.792	1.793	-0.001	2933658	25.5	26.6	
2	4.032	4.032	0.000	1284690	25.5	26.8	
						RPD = 0.69	
5 Propane							
1	2.534	2.528	0.006	5864755	40.1	40.9	
2	5.932	5.928	0.004	2613101	40.1	41.7	
						RPD = 1.89	
6 Acetylene							M
1	4.034	4.015	0.019	837564	23.7	24.4	
2	4.136	4.137	-0.001	545422	23.7	25.2	M
						RPD = 3.31	
7 Butane							
1	4.304	4.286	0.018	6888912	52.9	52.5	
2	7.381	7.375	0.006	3316499	52.9	52.3	
						RPD = 0.43	
8 isobutylene							
1	5.179	5.163	0.016	4611649	51.1	51.7	
2	7.231	7.227	0.004	2147651	51.1	51.7	
						RPD = 0.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

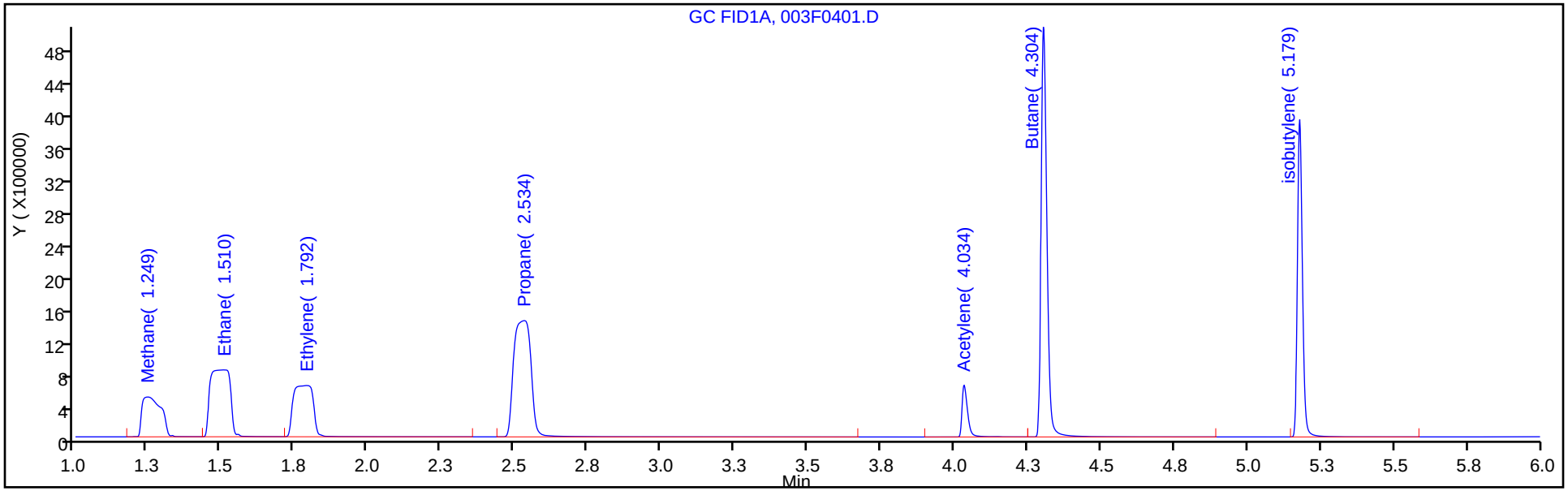
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

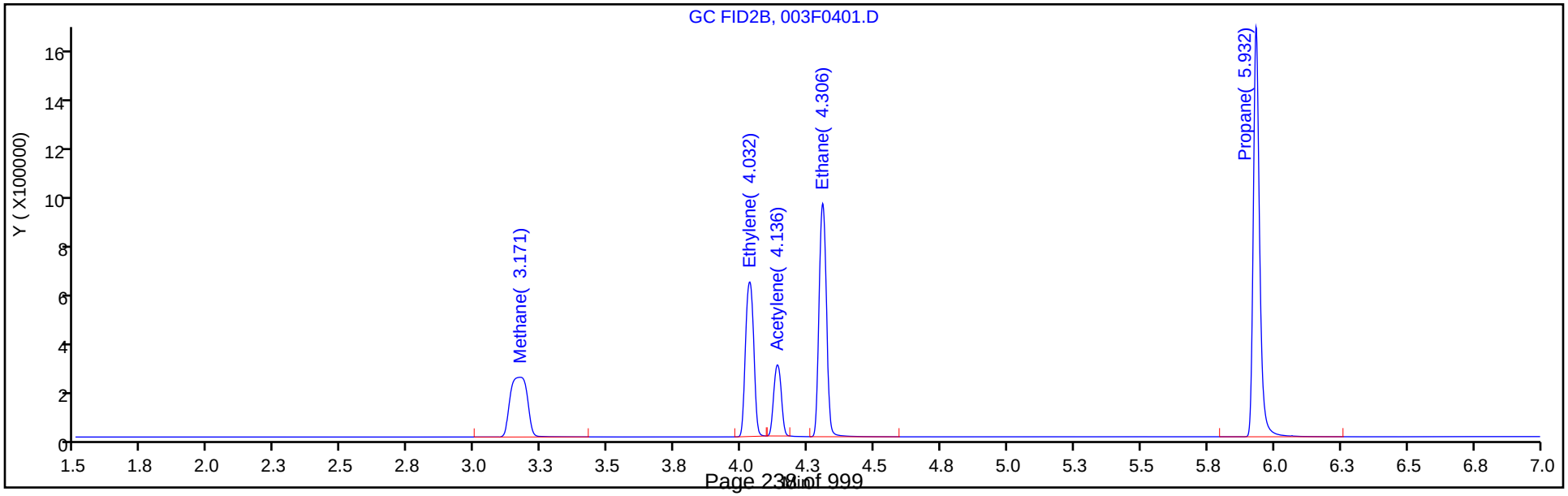
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L4			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 16-May-2020 12:02:59 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT 5
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	10173489	73.0	70.4	
2	3.172	3.172	0.000	4836394	73.0	70.4	
						RPD = 0.05	
3 Ethane							
1	1.511	1.511	0.000	18547040	136.9	136.3	
2	4.305	4.305	0.000	8282362	136.9	135.7	
						RPD = 0.50	
4 Ethylene							M
1	1.793	1.793	0.000	14030935	127.7	127.3	
2	4.032	4.032	0.000	6120221	127.7	127.7	M
						RPD = 0.29	
5 Propane							
1	2.528	2.528	0.000	28325635	200.7	197.7	
2	5.928	5.928	0.000	12604888	200.7	201.3	
						RPD = 1.77	
6 Acetylene							Ma
1	4.015	4.015	0.000	3792795	118.5	110.6	M
2	4.137	4.137	0.000	2629705	118.5	121.7	M
						RPD = 9.57	
7 Butane							Ma
1	4.286	4.286	0.000	34343170	264.5	260.4	M
2	7.375	7.375	0.000	16648646	264.5	261.1	a
						RPD = 0.27	
8 isobutylene							
1	5.163	5.163	0.000	23123734	255.4	259.0	
2	7.227	7.227	0.000	10785387	255.4	259.5	
						RPD = 0.19	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

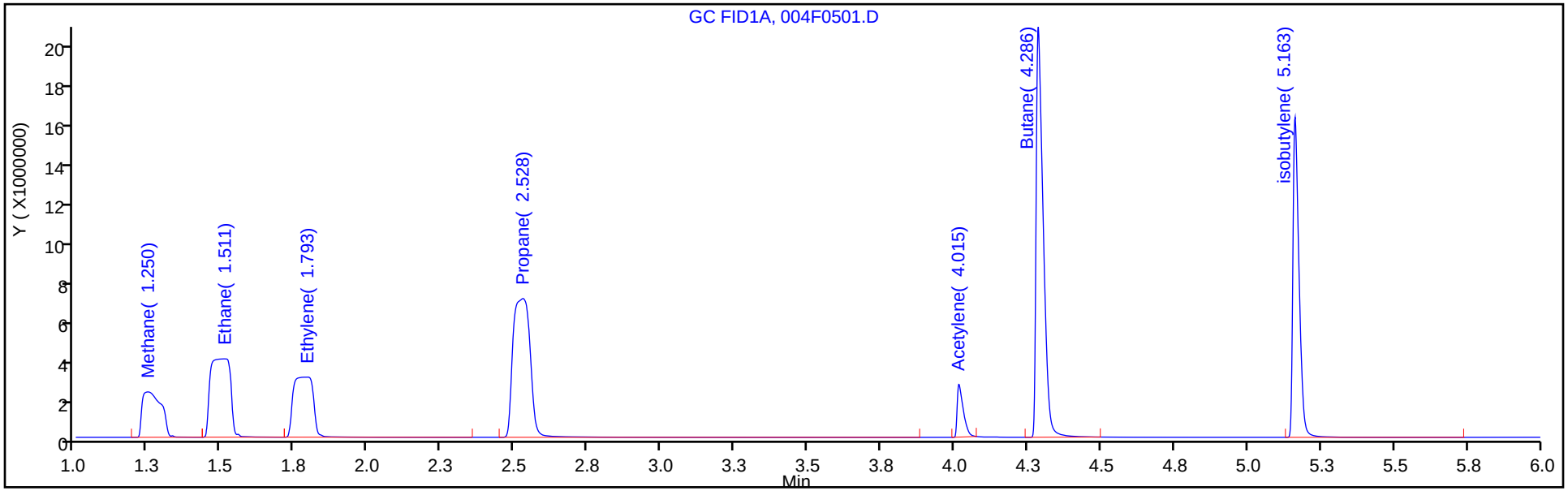
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

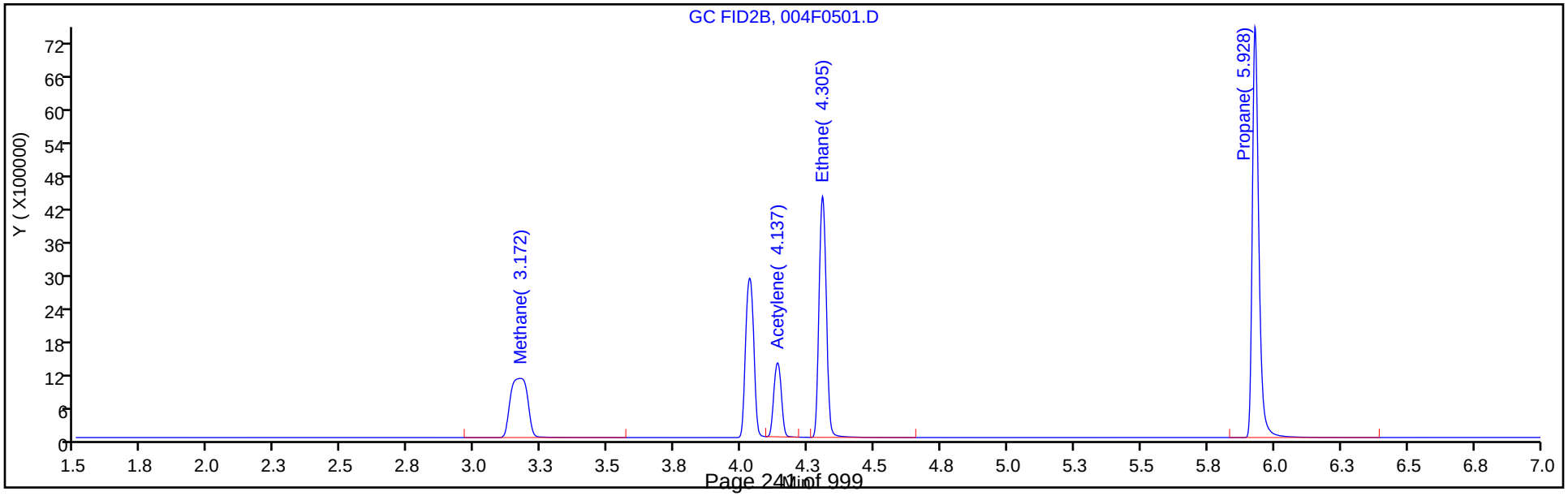
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICRT L5			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

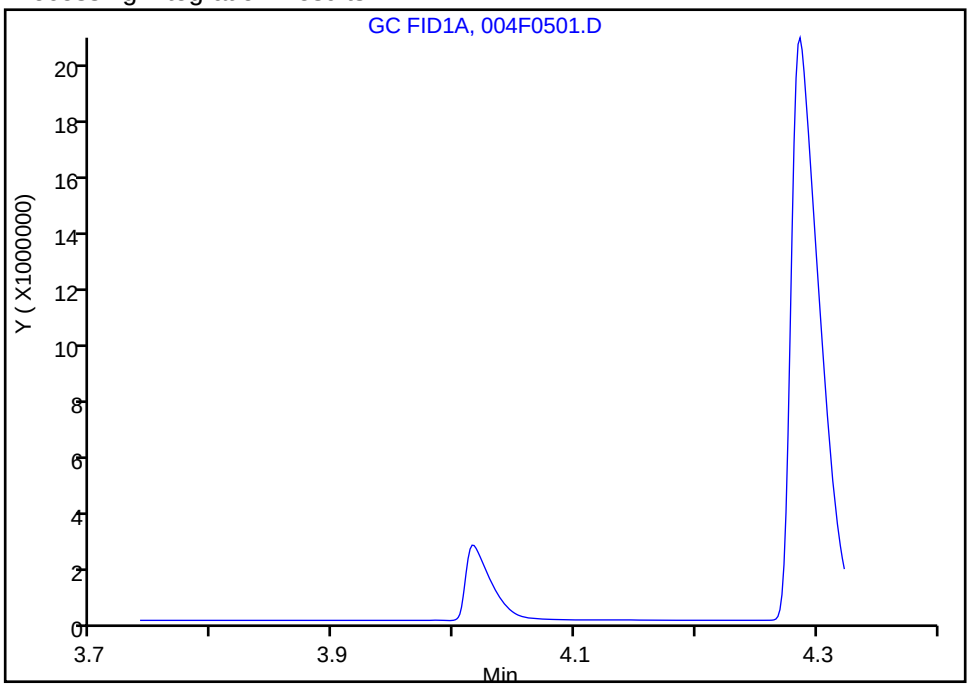
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

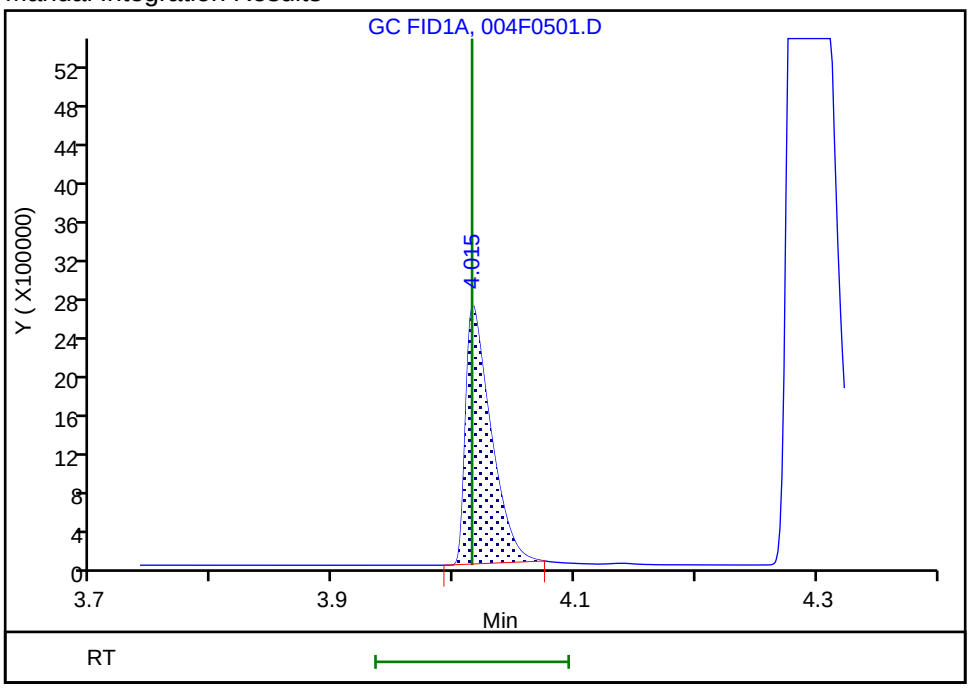
Processing Integration Results

RT: 4.01
Area: 0
Amount: 70.054658
Amount Units: ug/l



Manual Integration Results

RT: 4.01
Area: 3792795
Amount: 110.5956
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:07:53
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2020 12:19:27 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 6
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	21349465	146.0	148.2	
2	3.172	3.172	0.000	10129316	146.0	147.7	
						RPD = 0.31	
3 Ethane							
1	1.512	1.511	0.001	38849075	273.7	285.6	
2	4.306	4.305	0.001	17331467	273.7	283.9	
						RPD = 0.60	
4 Ethylene							
1	1.785	1.793	-0.008	29199476	255.3	264.9	
2	4.032	4.032	0.000	12731776	255.3	265.6	
						RPD = 0.26	
5 Propane							
1	2.522	2.528	-0.006	59231481	401.4	413.5	
2	5.926	5.928	-0.002	26366224	401.4	421.0	
						RPD = 1.80	
6 Acetylene							M
1	4.002	4.015	-0.013	8293493	237.0	241.8	
2	4.137	4.137	0.000	5438964	237.0	251.7	M
						RPD = 4.01	
7 Butane							
1	4.270	4.286	-0.016	71750490	529.0	543.6	
2	7.369	7.375	-0.006	34602301	529.0	542.3	
						RPD = 0.25	
8 isobutylene							Ma
1	5.150	5.163	-0.013	47351348	510.8	530.4	M
2	7.222	7.227	-0.005	22287396	510.8	536.3	a
						RPD = 1.10	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

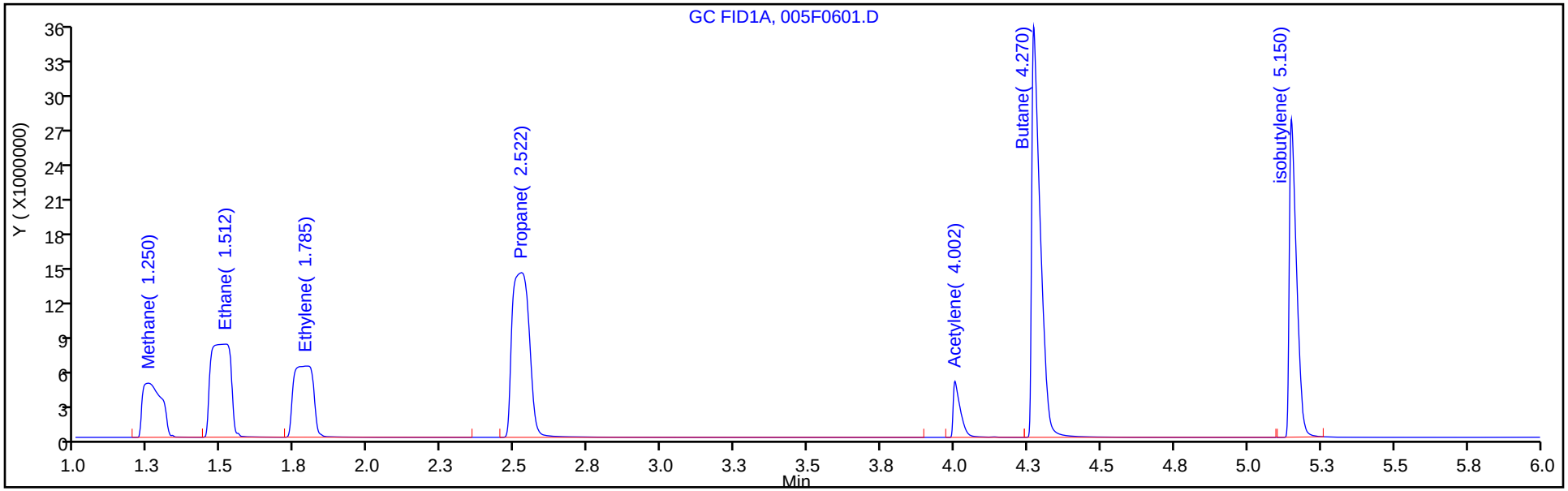
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

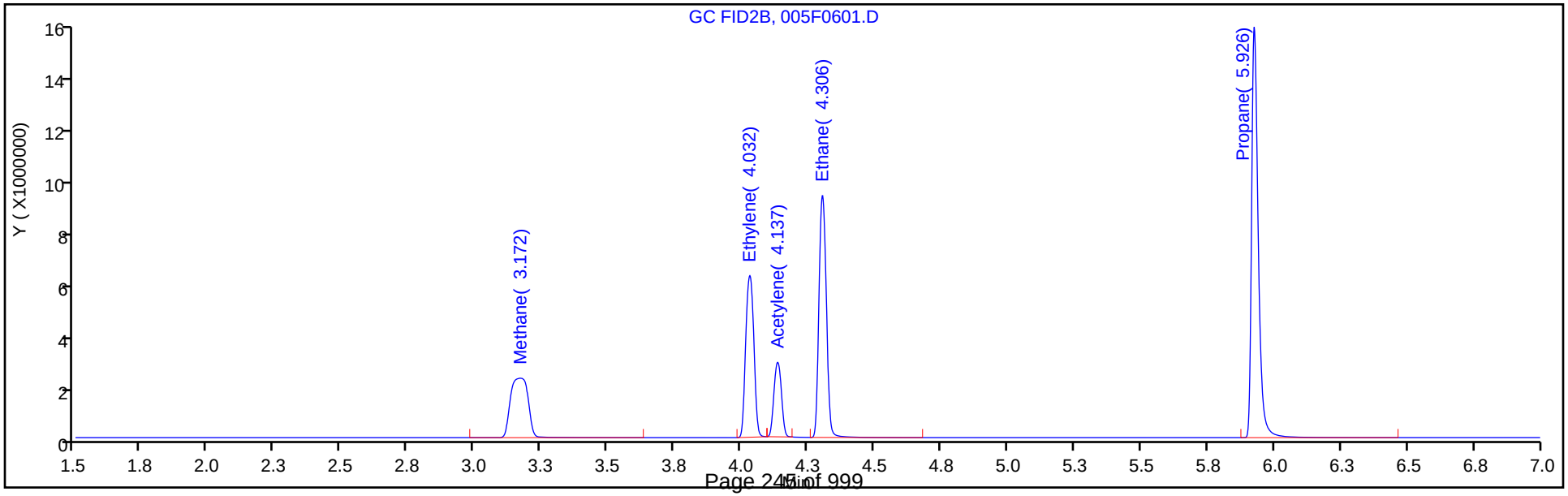
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L6			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2020 12:35:56 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.243	1.250	-0.007	40706597	292.0	282.9	
2	3.168	3.172	-0.004	19242711	292.0	280.9	
						RPD = 0.71	
3 Ethane							
1	1.508	1.511	-0.003	74364849	547.4	546.6	
2	4.302	4.305	-0.003	33180606	547.4	543.4	
						RPD = 0.58	
4 Ethylene							
1	1.785	1.793	-0.008	55873290	510.7	507.0	
2	4.028	4.032	-0.004	24365732	510.7	508.3	
						RPD = 0.27	
5 Propane							
1	2.510	2.528	-0.018	113846992	802.8	794.7	
2	5.920	5.928	-0.008	50751227	802.8	810.3	
						RPD = 1.94	
6 Acetylene							M
1	3.983	4.015	-0.032	15971476	474.1	465.7	
2	4.135	4.137	-0.002	10316086	474.1	477.5	M
						RPD = 2.49	
7 Butane							
1	4.250	4.286	-0.036	137944774	1058.1	1044.9	
2	7.362	7.375	-0.013	67311032	1058.1	1054.6	
						RPD = 0.92	
8 isobutylene							
1	5.133	5.163	-0.030	92637372	1021.5	1037.7	
2	7.217	7.227	-0.010	43289193	1021.5	1041.6	
						RPD = 0.38	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

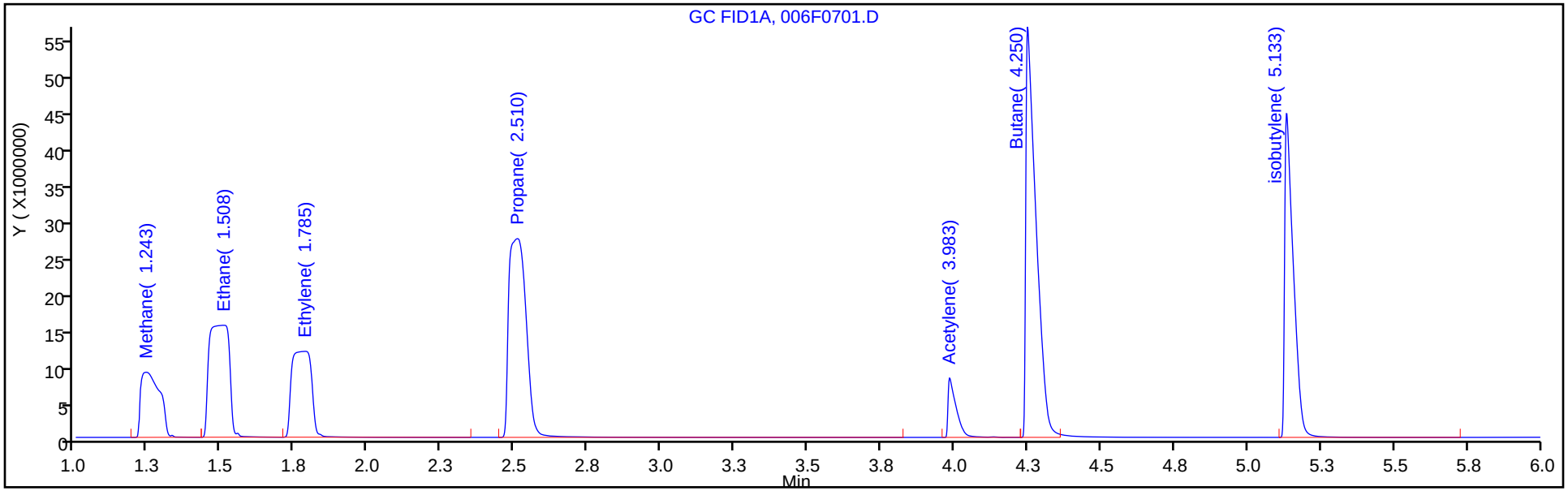
RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

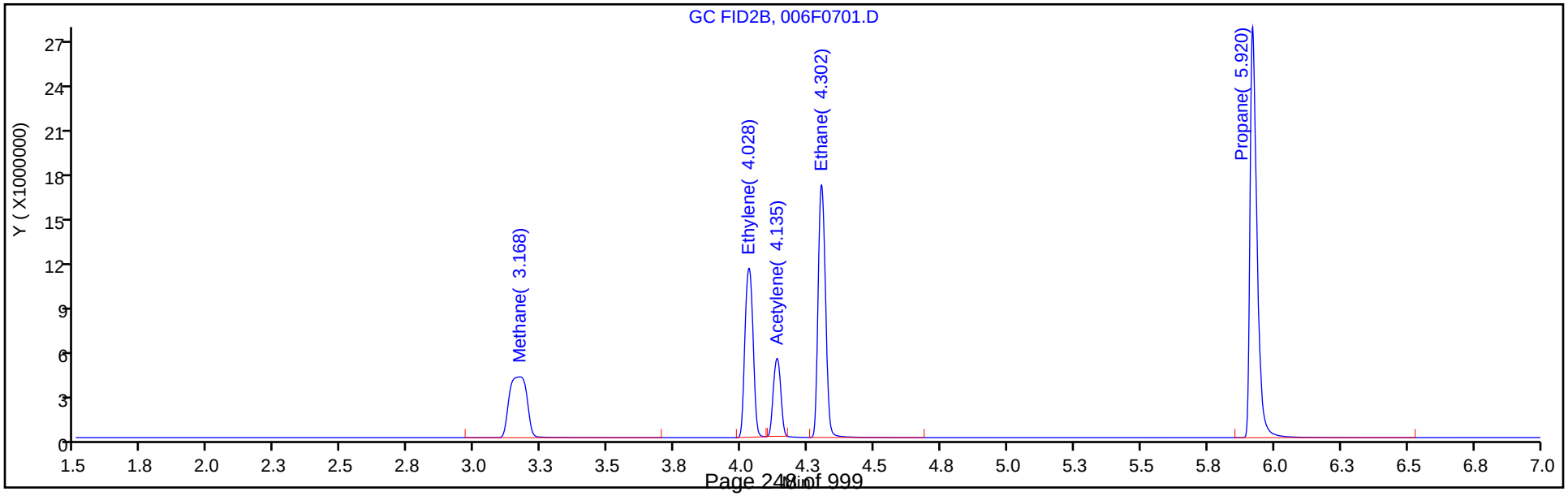
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D				
Injection Date:	16-May-2020 12:35:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L7			Worklist Smp#:	12
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	16-May-2020 12:52:27	ALS Bottle#:	7	Worklist Smp#:	13
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 8				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	256592942	1806.9	1784.9	
2	3.168	3.172	-0.004	121745624	1806.9	1778.4	
						RPD = 0.36	

Reagents:

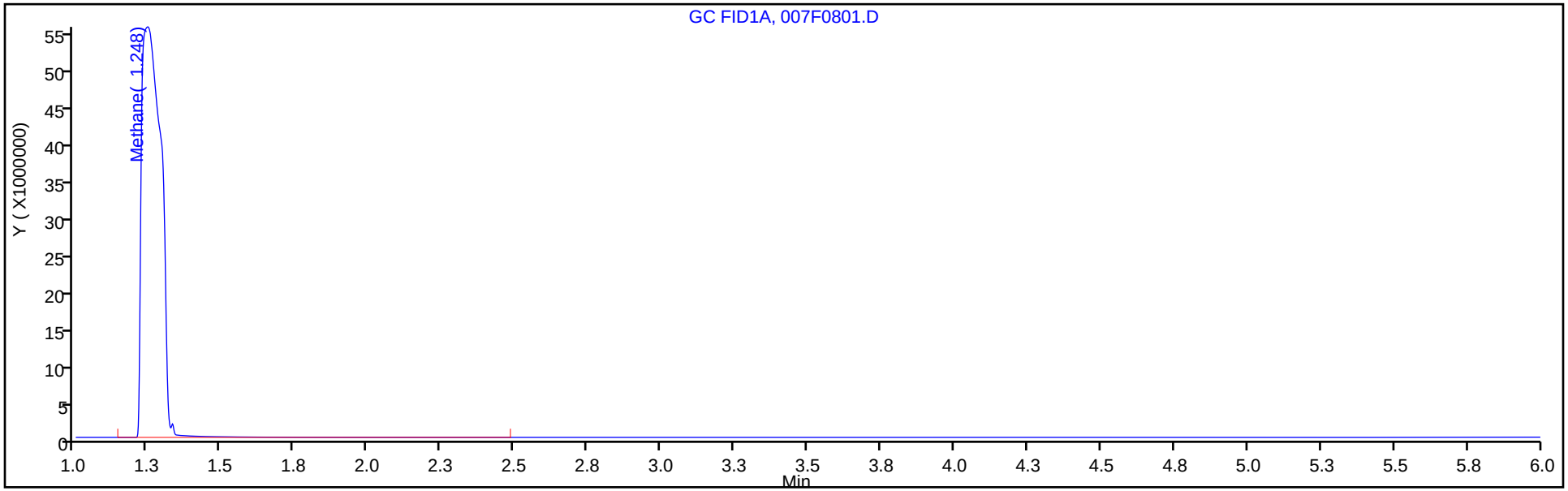
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

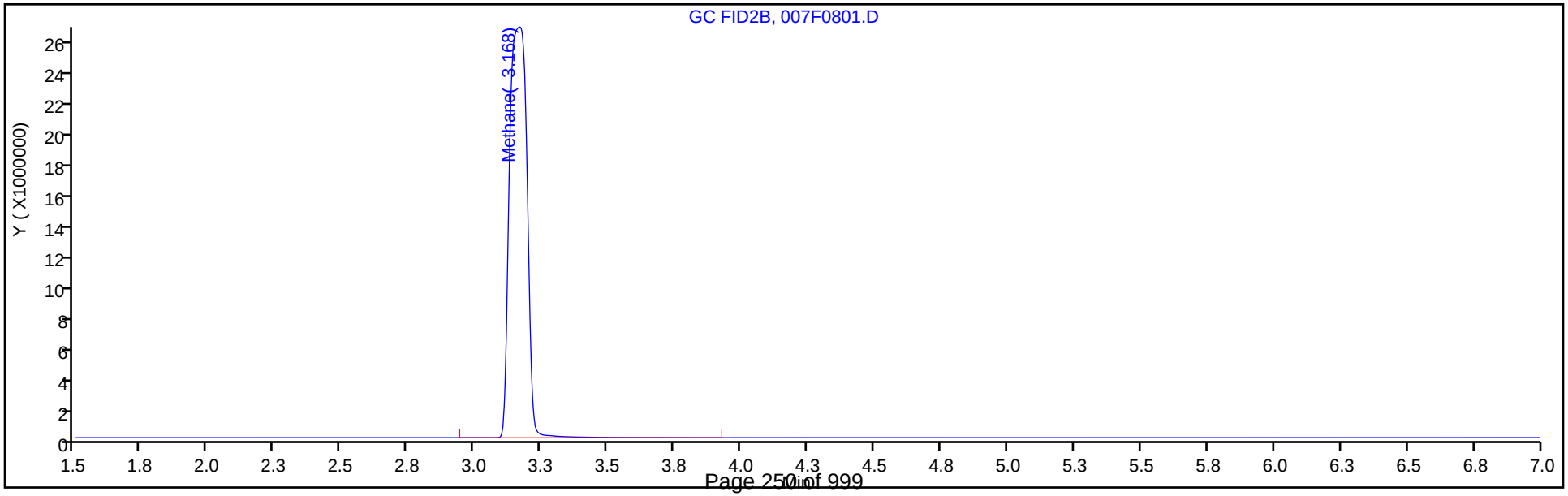
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Injection Date:	16-May-2020 12:52:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L8			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	16-May-2020 13:08:56	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 9				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.245	1.250	-0.005	1008615918	7227.8	7016.9	
2	3.160	3.172	-0.012	484781088	7227.8	7082.2	
						RPD = 0.93	

Reagents:

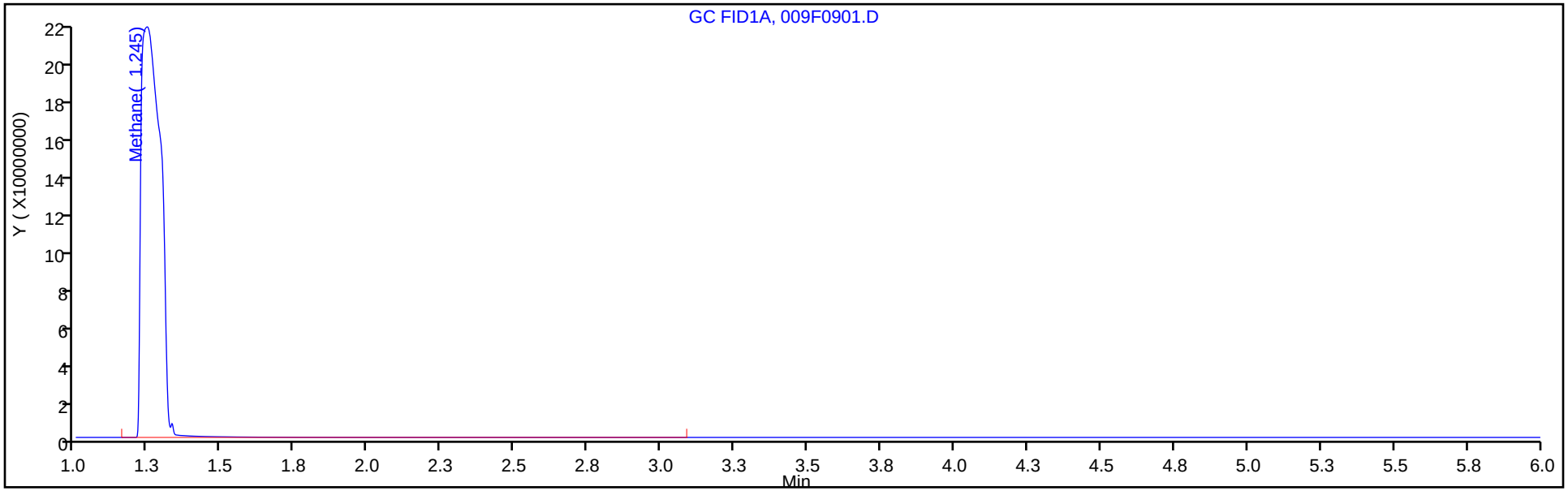
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

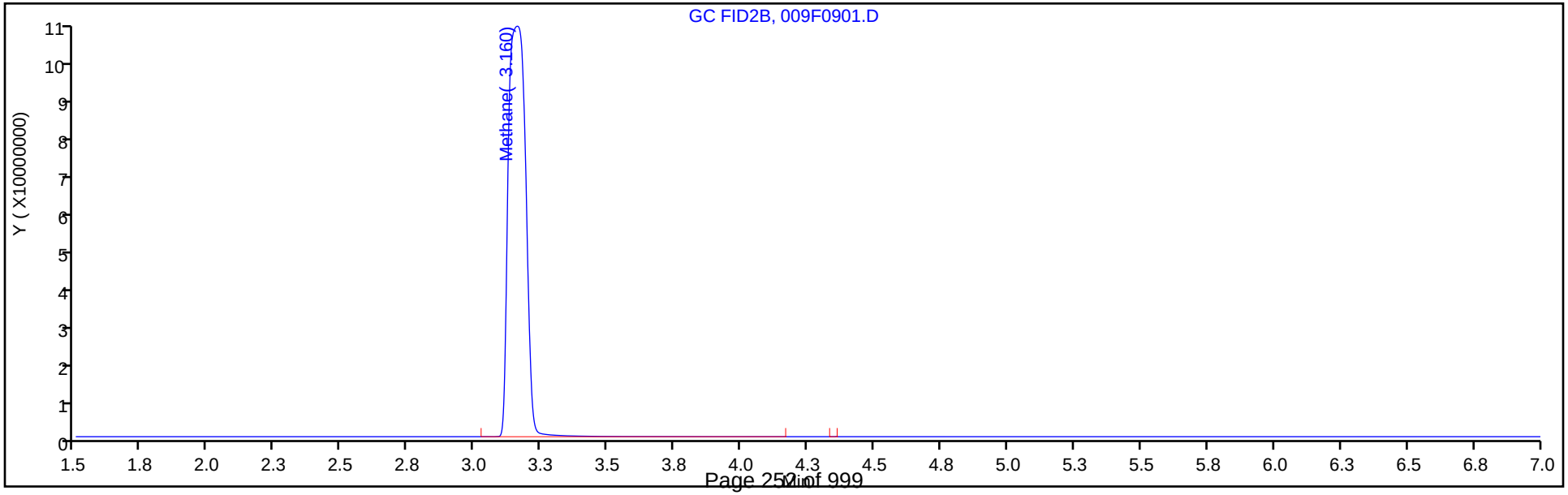
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Injection Date:	16-May-2020 13:08:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L9			Worklist Smp#:	14
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	3.180	3.171	3.169	3.171	3.172	3.172	3.168	3.168	3.160		3.132 - 3.212	3.170
Ethylene	4.038	4.031	4.031	4.032	4.032	4.032	4.028				3.982 - 4.082	4.032
Acetylene	4.142	4.136	4.136	4.136	4.137	4.137	4.135				4.057 - 4.217	4.137
Ethane	4.310	4.306	4.306	4.306	4.305	4.306	4.302				4.255 - 4.355	4.306

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	103189 66249 67072	91938 69376	81470 65897	71453 67377	Lin2	17305.4468	68448.1220							0.9980		0.9900
Ethylene	41850 47939	48398 49863	49458 47714	50314	Ave		47933.7023				6.0		20.0			
Acetylene	17710 22187	21298 22945	22329 21760	23009	Ave		21605.4944				8.4		20.0			
Ethane	53080 60519	62532 63320	63577 60612	63754	Ave		61056.4722				6.2		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Lin2	47082 10129316	83897 19242711	148689 121745624	1043265 484781088	4836394	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethylene	Ave	33393 12731776	77235 24365732	157852	1284690	6120221	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	13119 5438964	31554 10316086	66161	545422	2629705	0.741 237	1.48 474	2.96	23.7	119
Ethane	Ave	45402 17331467	106974 33180606	217520	1745027	8282362	0.855 274	1.71 547	3.42	27.4	137

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2020 10:57:08 ALS Bottle#: 1 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 1
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	111434	0.4563	0.4358	
2	3.180	3.172	0.008	47082	0.4563	0.4350	
						RPD = 0.19	
3 Ethane							Ma
1	1.513	1.511	0.002	99432	0.8553	0.7309	M
2	4.310	4.305	0.005	45402	0.8553	0.7436	a
						RPD = 1.73	
4 Ethylene							
1	1.795	1.793	0.002	75924	0.7979	0.6889	
2	4.038	4.032	0.006	33393	0.7979	0.6966	
						RPD = 1.12	
5 Propane							
1	2.535	2.528	0.007	162619	1.25	1.14	
2	5.932	5.928	0.004	68003	1.25	1.09	
						RPD = 4.45	
6 Acetylene							M
1	4.048	4.015	0.033	24105	0.7408	0.7029	
2	4.142	4.137	0.005	13119	0.7408	0.6072	M
						RPD = 14.61	
7 Butane							Ma
1	4.315	4.286	0.029	175523	1.65	1.66	M
2	7.382	7.375	0.007	85626	1.65	1.67	a
						RPD = 0.36	
8 isobutylene							
1	5.190	5.163	0.027	120280	1.60	1.35	
2	7.232	7.227	0.005	54094	1.60	1.30	
						RPD = 3.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

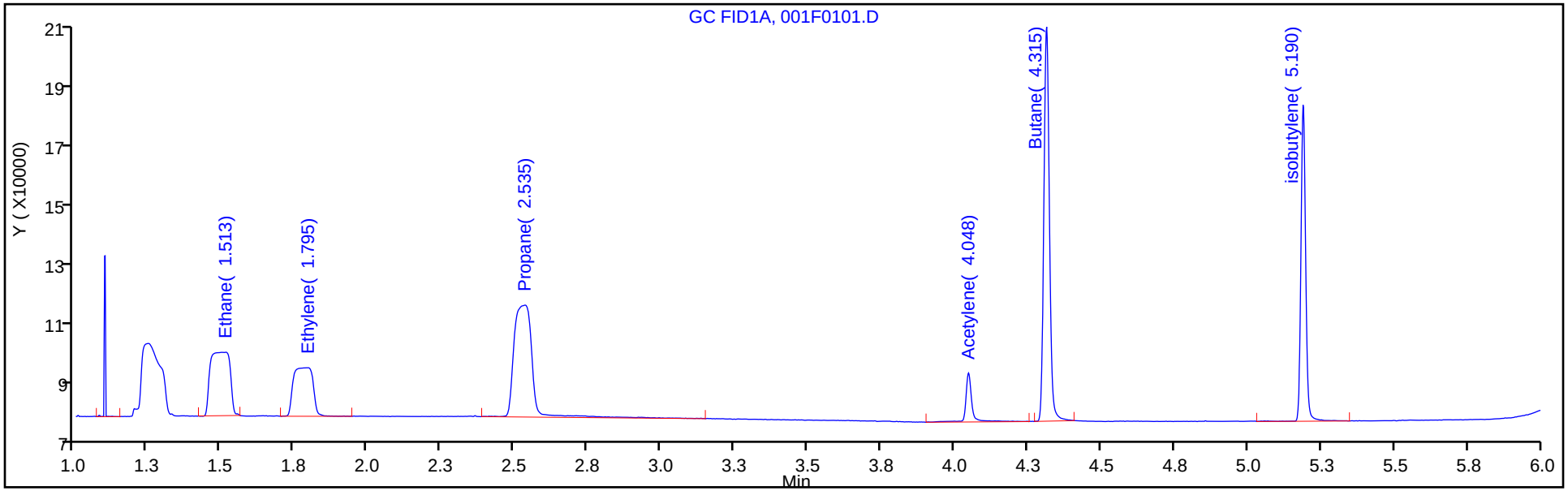
RSK7gasMathes_00031 Amount Added: 1.25 Units: uL

Report Date: 17-May-2020 08:59:46 Chrom Revision: 2.3 05-May-2020 17:48:18

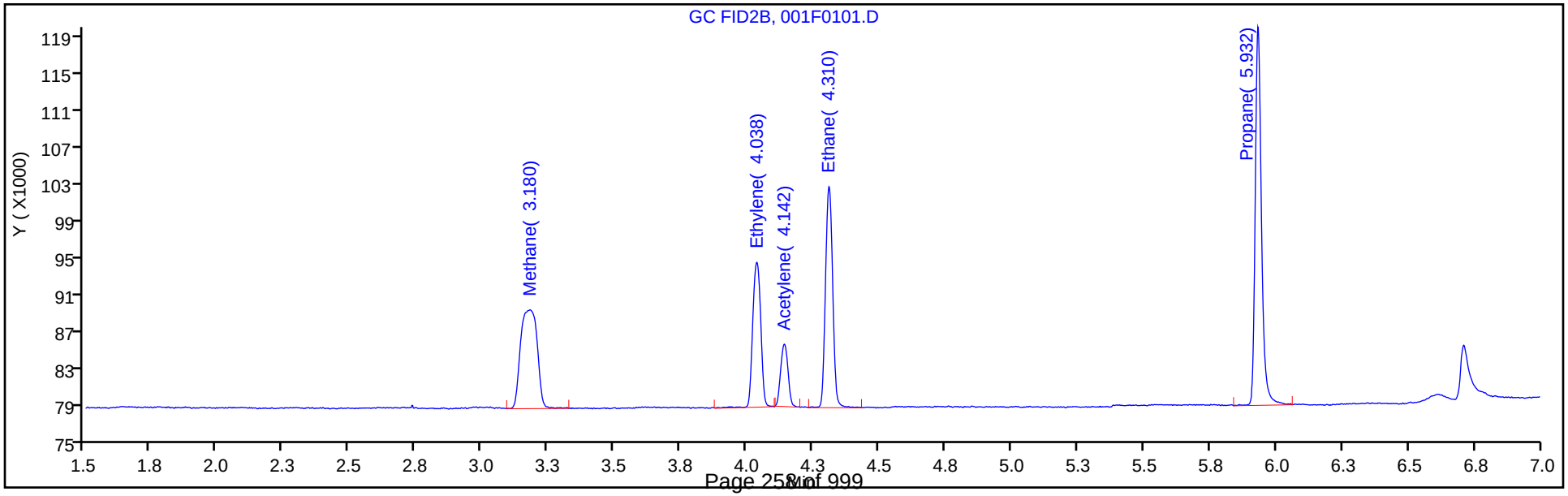
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L1			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

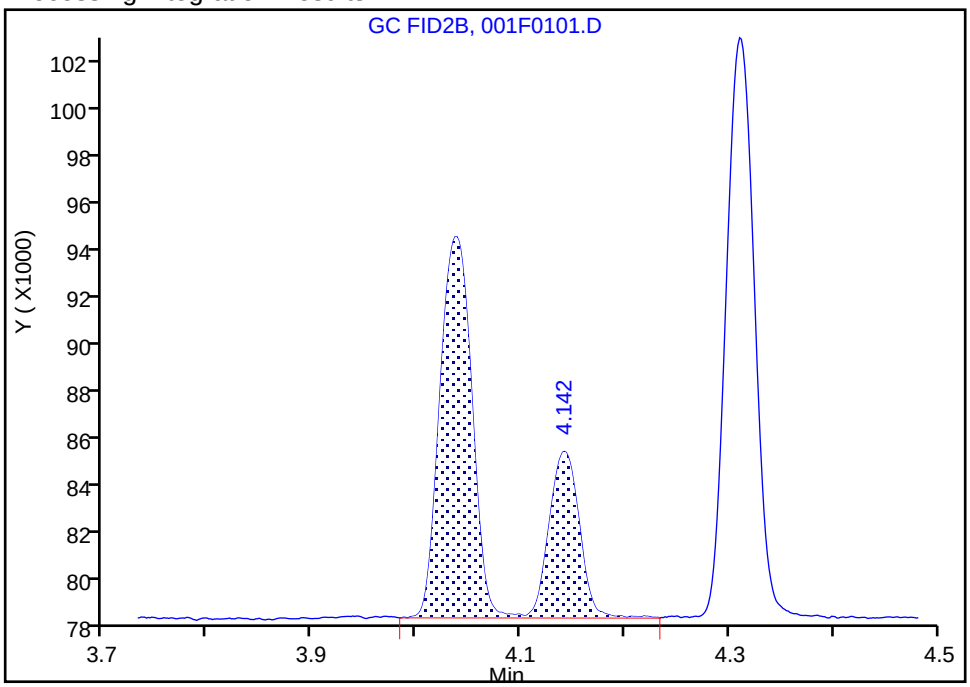
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

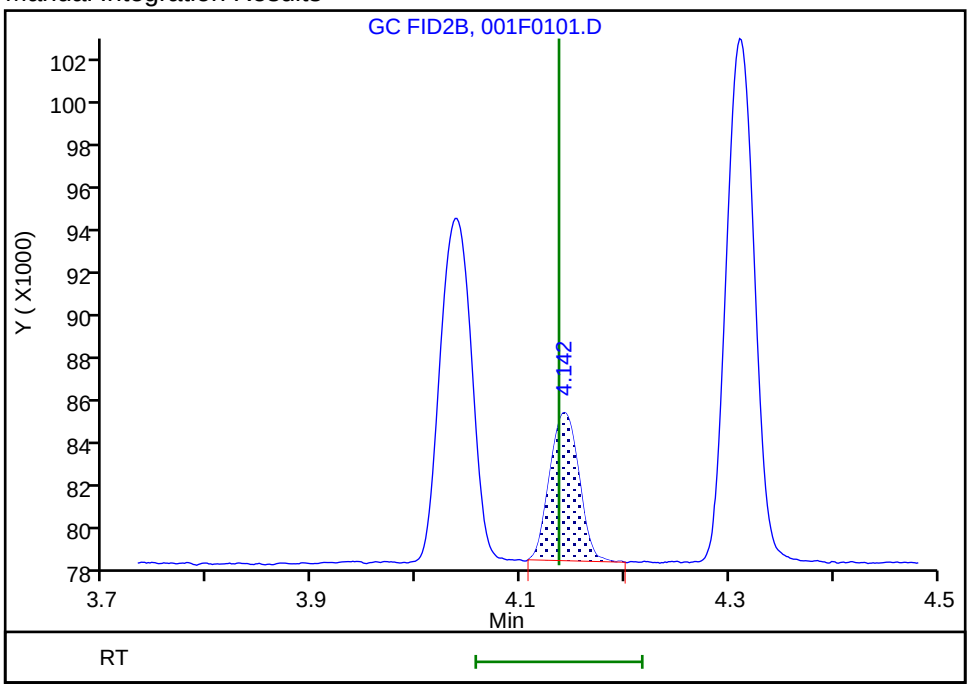
Processing Integration Results

RT: 4.14
Area: 47095
Amount: 1.672538
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 13119
Amount: 0.607207
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:19:02
Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

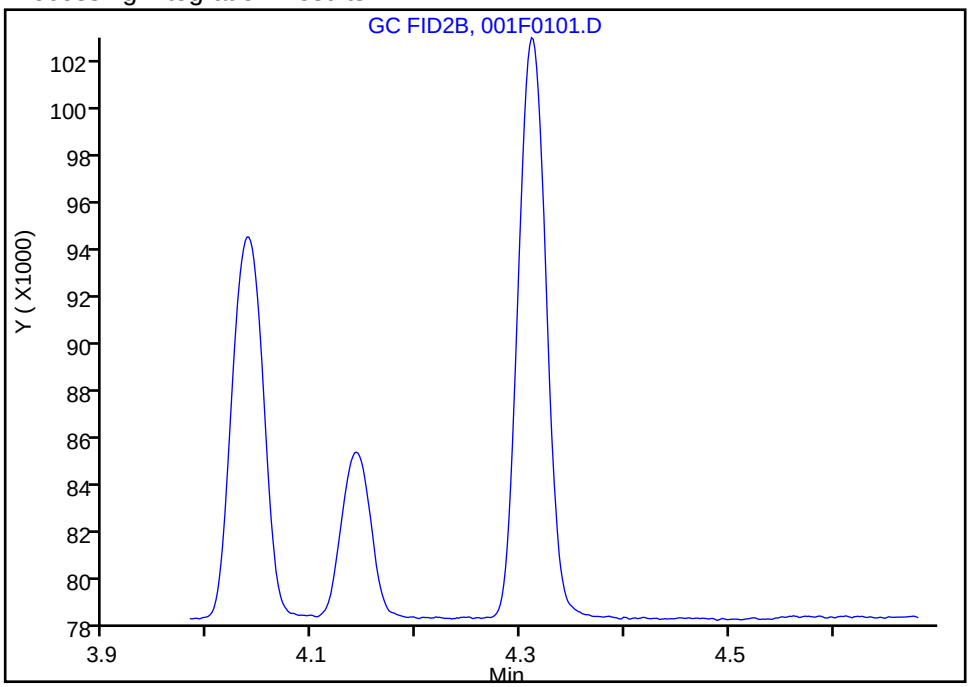
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

3 Ethane, CAS: 74-84-0

Signal: 2

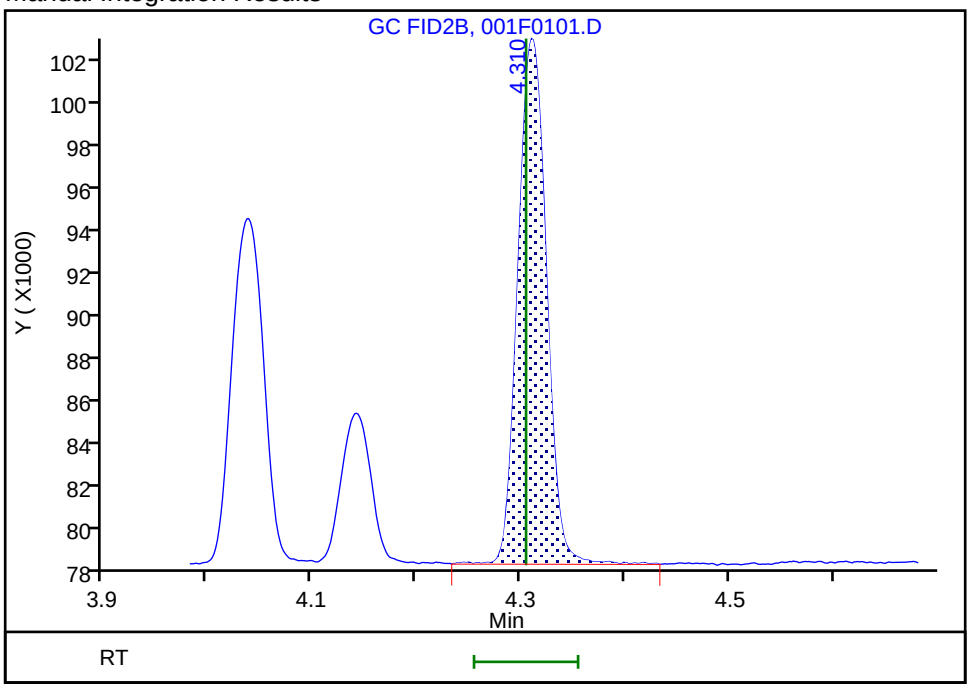
Processing Integration Results

Not Detected
Expected RT: 4.30



Manual Integration Results

RT: 4.31
Area: 45402
Amount: 0.743607
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:37:15
Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2020 11:13:34 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.251	1.250	0.001	188199	0.9125	0.9699	
2	3.171	3.172	-0.001	83897	0.9125	0.9729	
						RPD = 0.31	
3 Ethane							
1	1.514	1.511	0.003	237424	1.71	1.75	
2	4.306	4.305	0.001	106974	1.71	1.75	
						RPD = 0.39	
4 Ethylene							M
1	1.788	1.793	-0.005	180285	1.60	1.64	
2	4.031	4.032	-0.001	77235	1.60	1.61	M
						RPD = 1.51	
5 Propane							
1	2.534	2.528	0.006	366612	2.51	2.56	
2	5.933	5.928	0.005	156230	2.51	2.49	
						RPD = 2.56	
6 Acetylene							Ma
1	4.044	4.015	0.029	52951	1.48	1.54	a
2	4.136	4.137	-0.001	31554	1.48	1.46	M
						RPD = 5.56	
7 Butane							
1	4.311	4.286	0.025	384054	3.31	3.24	
2	7.381	7.375	0.006	184917	3.31	3.22	
						RPD = 0.55	
8 isobutylene							
1	5.186	5.163	0.023	261296	3.19	2.93	
2	7.231	7.227	0.004	119878	3.19	2.88	
						RPD = 1.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

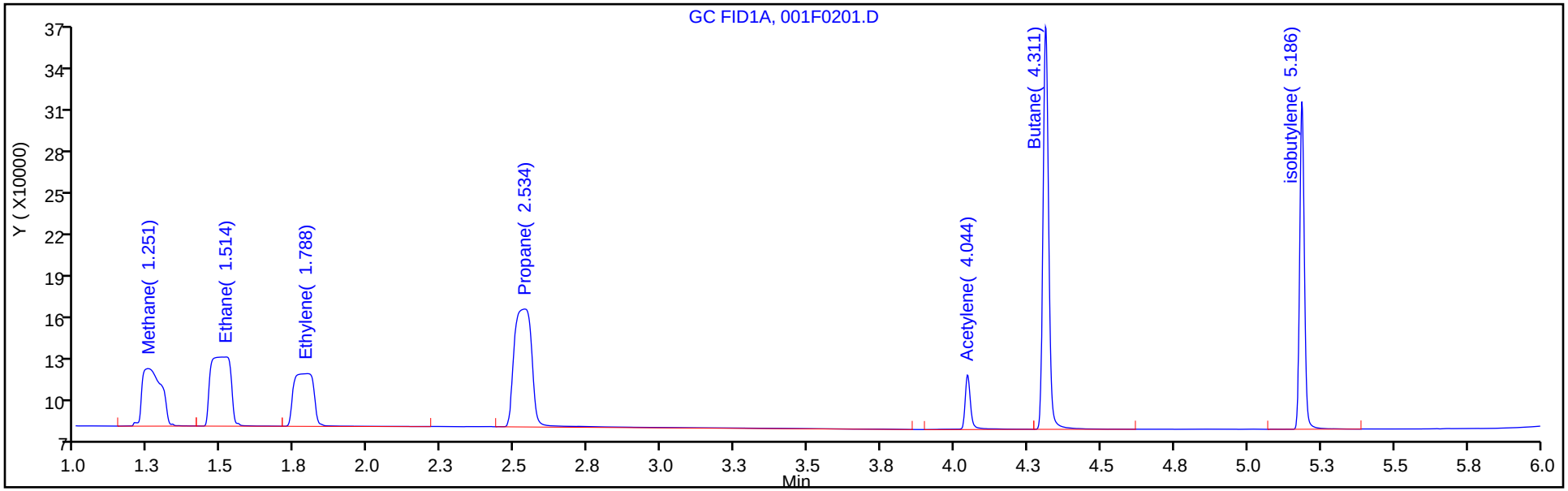
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

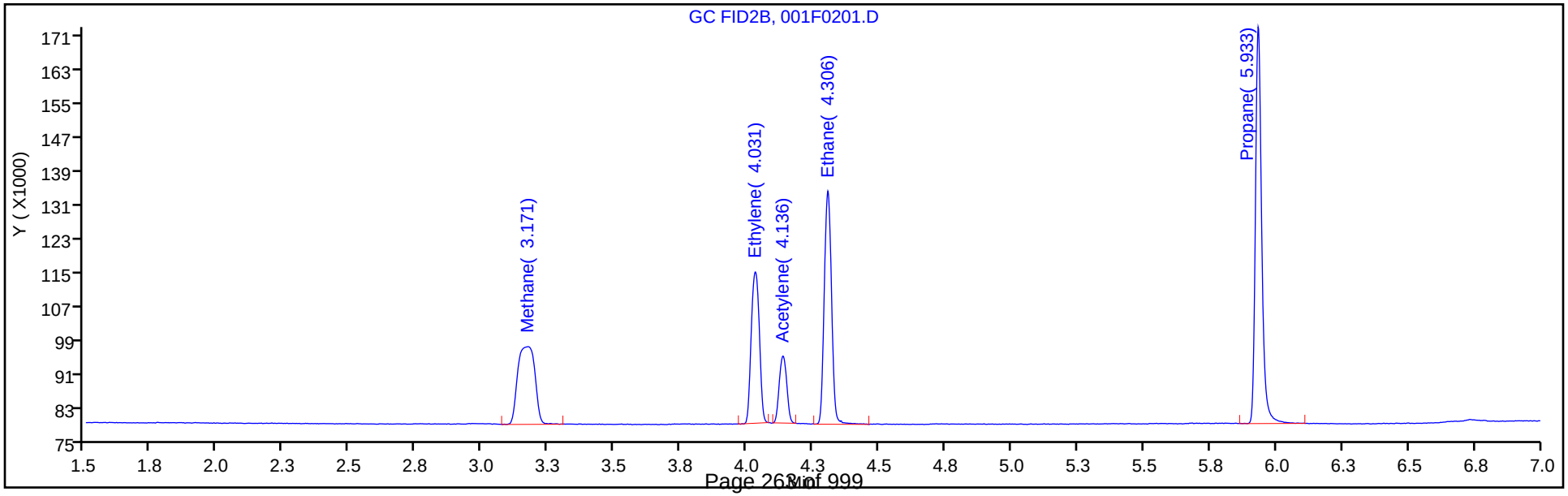
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L2			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

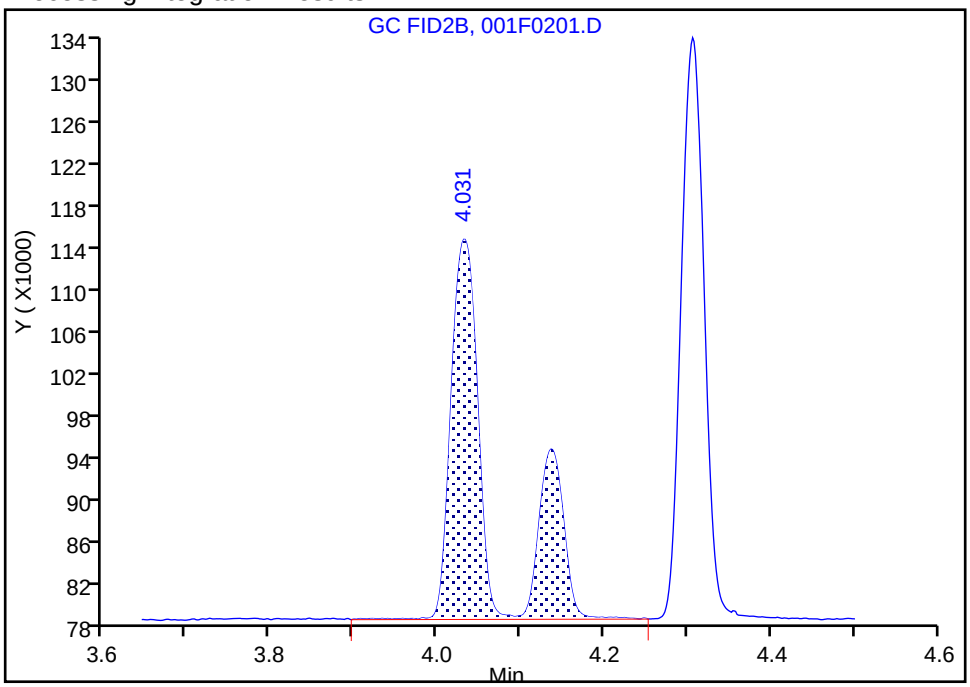
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

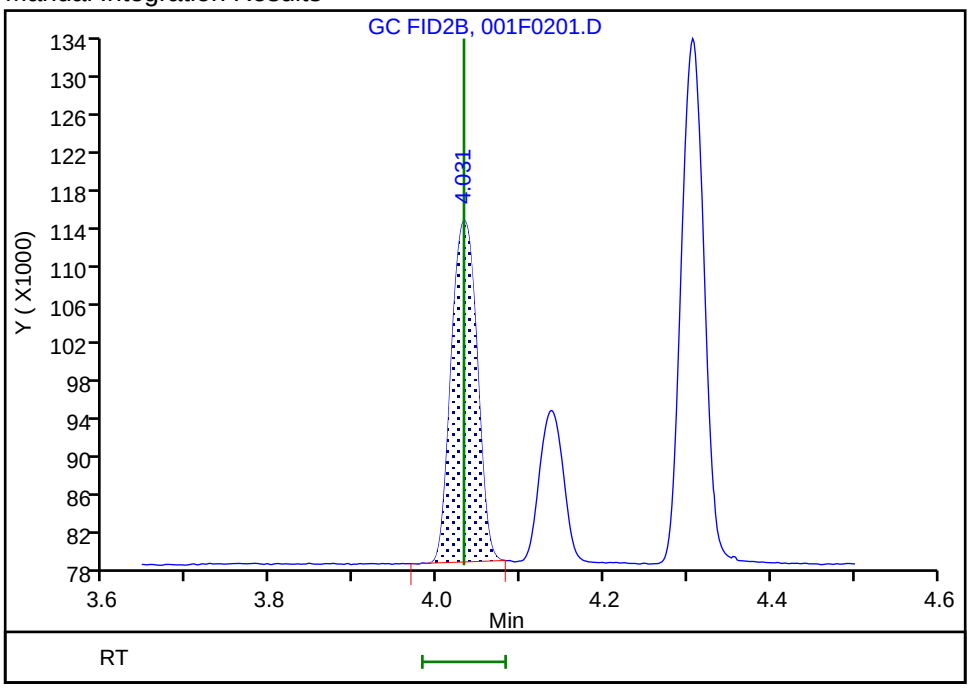
Processing Integration Results

RT: 4.03
Area: 113071
Amount: 2.160644
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 77235
Amount: 1.611288
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:17
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver

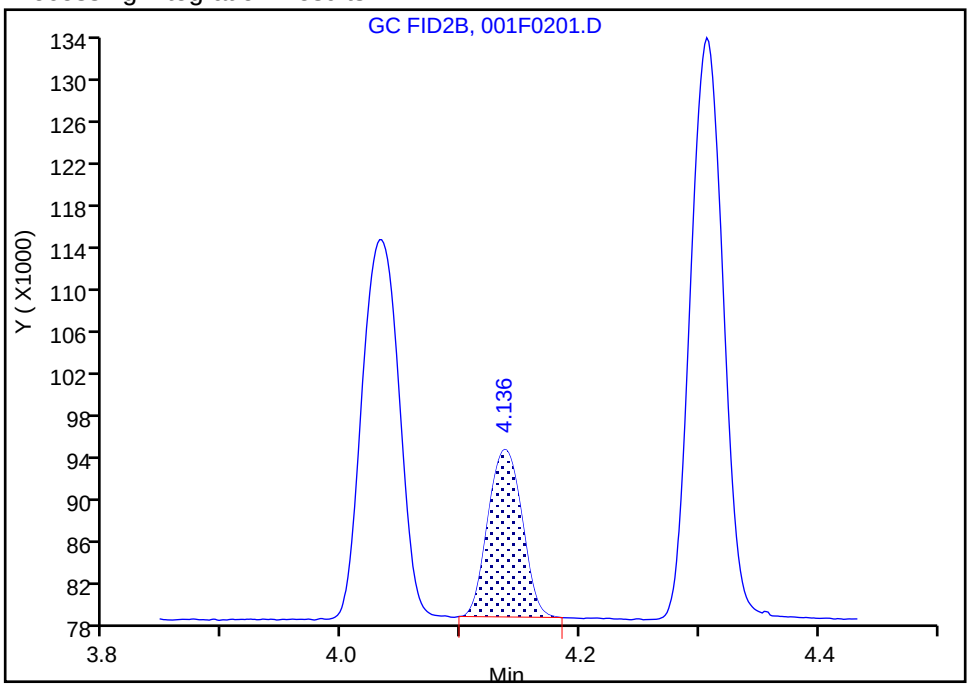
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

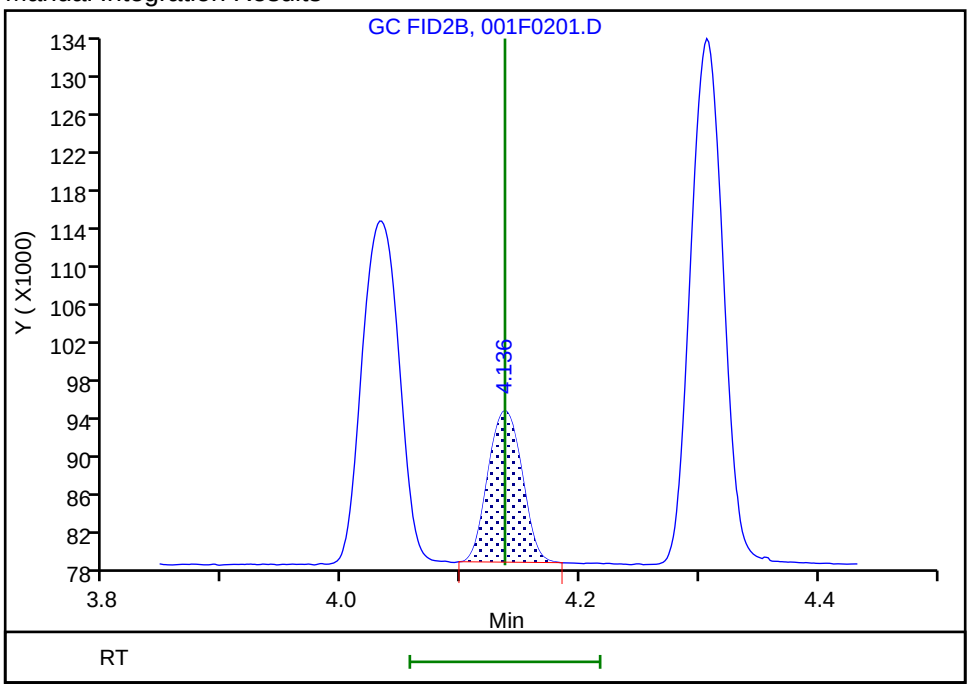
Processing Integration Results

RT: 4.14
Area: 31554
Amount: 1.109766
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 31554
Amount: 1.460462
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:43
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2020 11:30:01 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:47 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	324614	1.83	1.92	
2	3.169	3.172	-0.003	148689	1.83	1.92	
						RPD = 0.02	
3 Ethane							
1	1.511	1.511	0.000	485411	3.42	3.57	
2	4.306	4.305	0.001	217520	3.42	3.56	
						RPD = 0.15	
4 Ethylene							M
1	1.791	1.793	-0.002	366405	3.19	3.32	
2	4.031	4.032	-0.001	157852	3.19	3.29	M
						RPD = 0.95	
5 Propane							
1	2.531	2.528	0.003	754733	5.02	5.27	
2	5.933	5.928	0.005	326853	5.02	5.22	
						RPD = 0.95	
6 Acetylene							Ma
1	4.043	4.015	0.028	105983	2.96	3.09	a
2	4.136	4.137	-0.001	66161	2.96	3.06	M
						RPD = 0.92	
7 Butane							
1	4.311	4.286	0.025	850630	6.61	6.77	
2	7.379	7.375	0.004	410288	6.61	6.75	
						RPD = 0.31	
8 isobutylene							
1	5.184	5.163	0.021	571566	6.38	6.40	
2	7.229	7.227	0.002	264983	6.38	6.38	
						RPD = 0.42	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

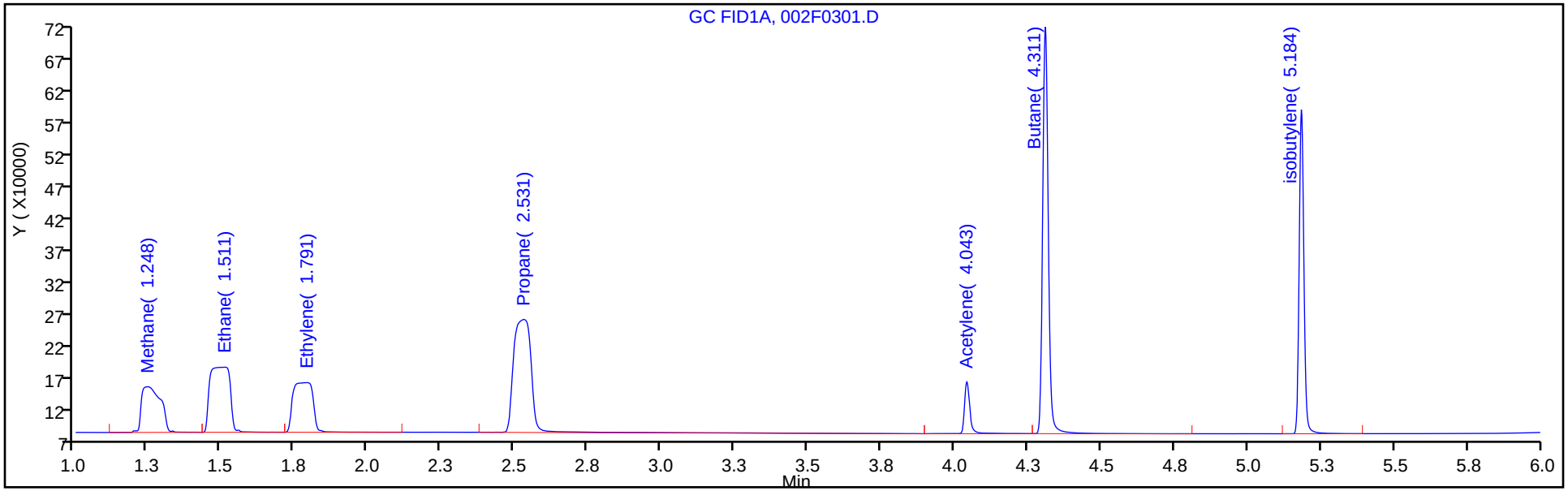
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

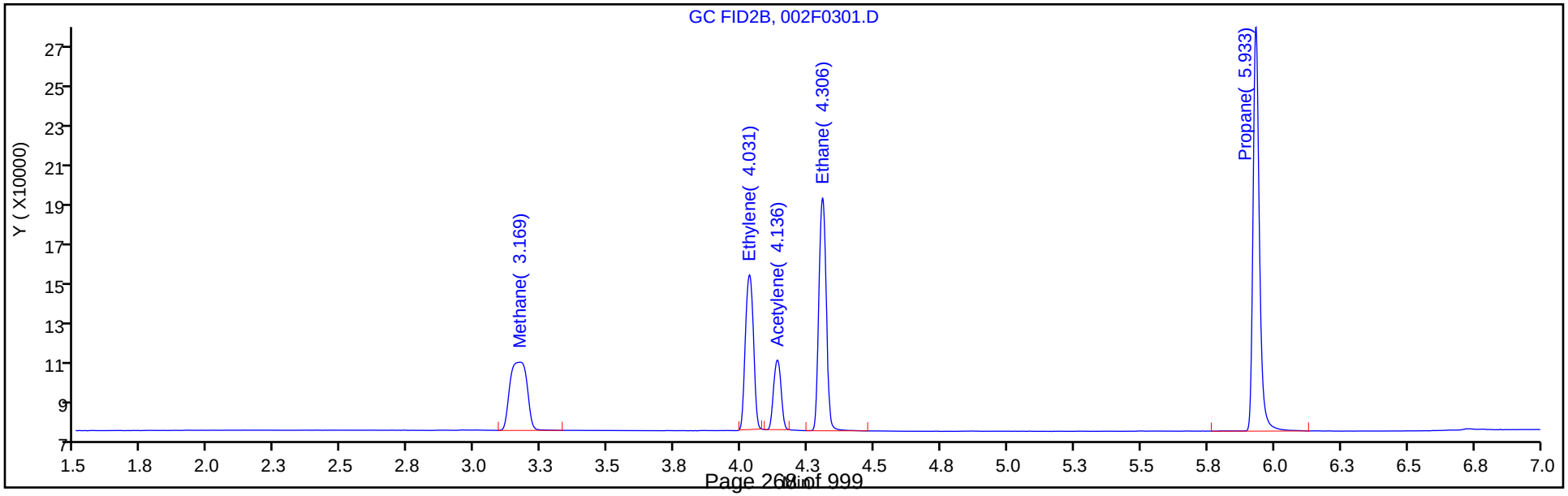
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L3			Worklist Smp#:	8
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

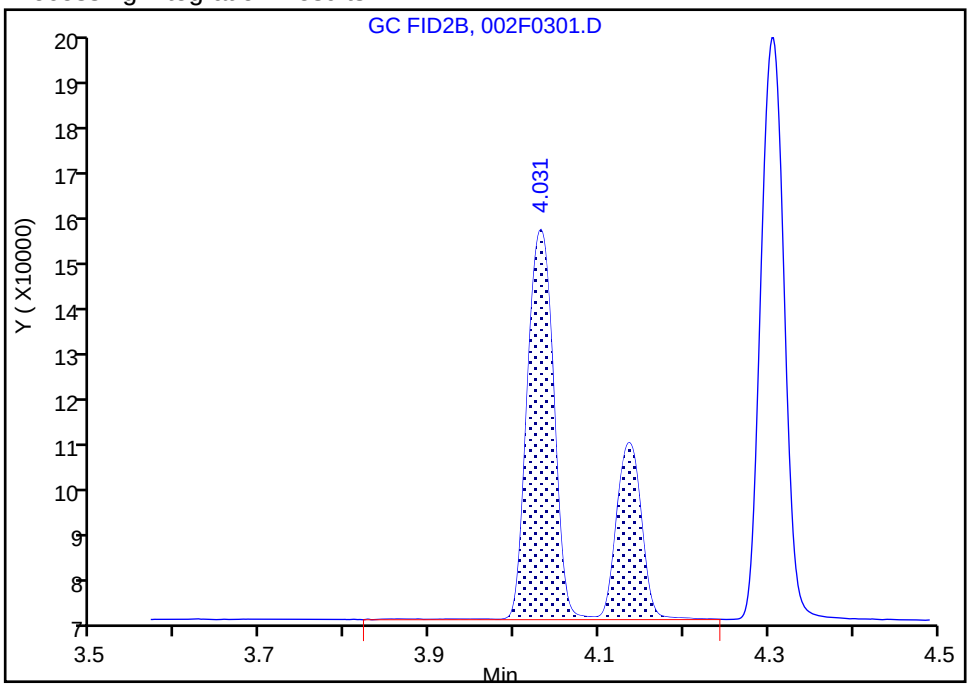
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

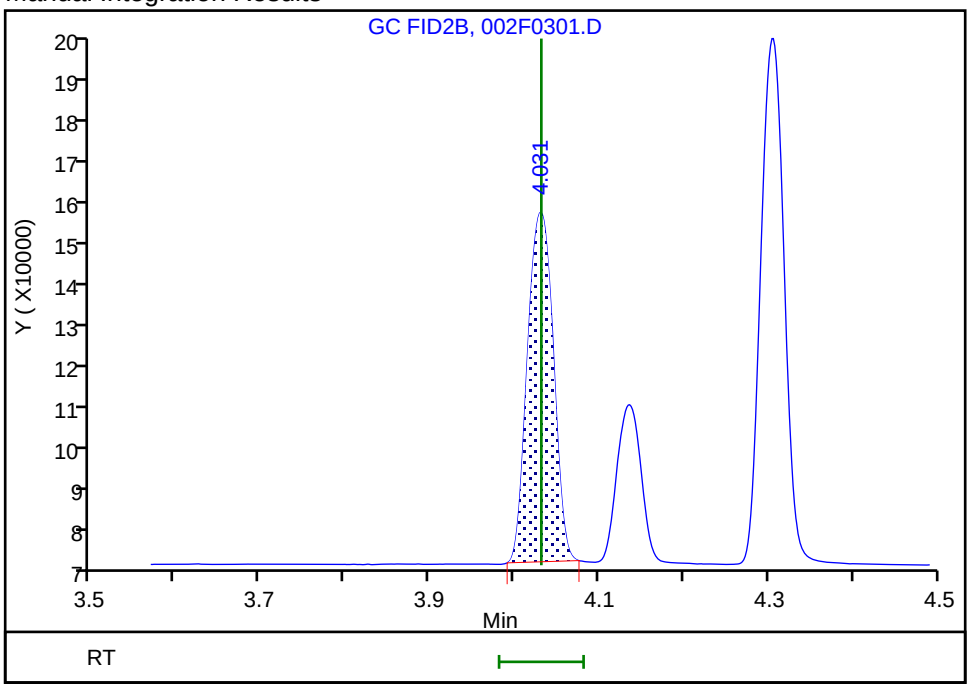
Processing Integration Results

RT: 4.03
Area: 232536
Amount: 4.445704
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 157852
Amount: 3.293132
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:44:57

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver

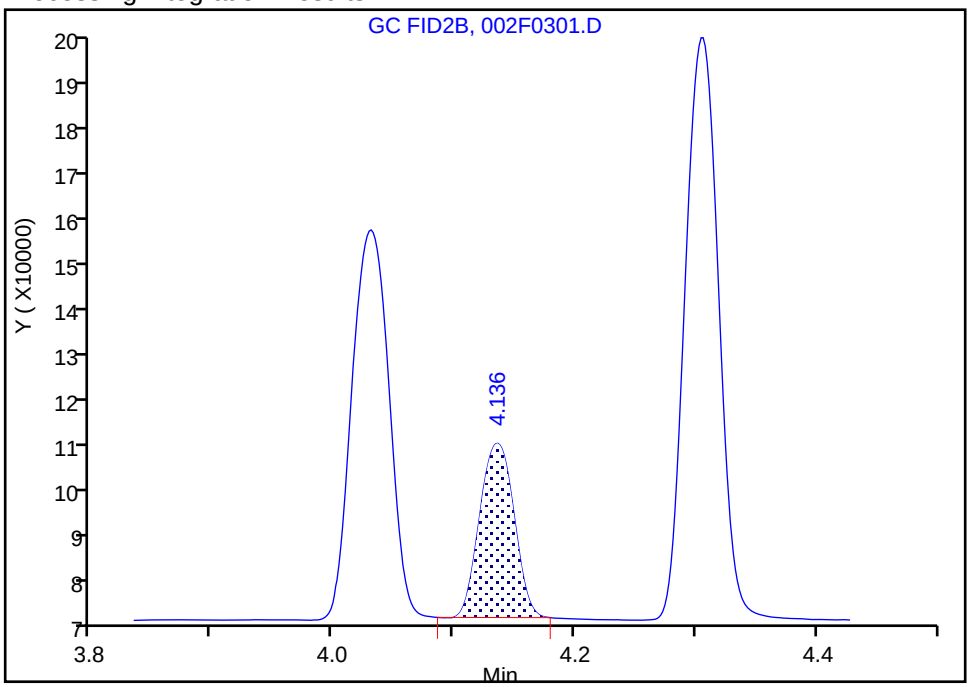
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

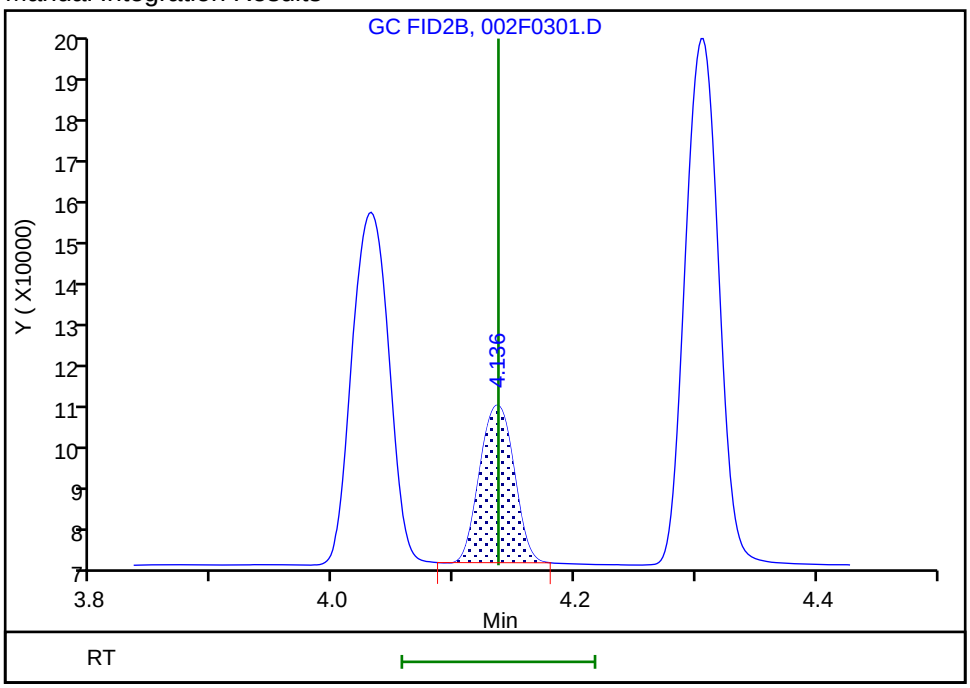
Processing Integration Results

RT: 4.14
Area: 66161
Amount: 2.336755
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 66161
Amount: 3.062230
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:45:15
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2020 11:46:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	2196261	14.6	14.9	
2	3.171	3.172	-0.001	1043265	14.6	15.0	
						RPD = 0.32	
3 Ethane							
1	1.510	1.511	-0.001	3889050	27.4	28.6	
2	4.306	4.305	0.001	1745027	27.4	28.6	
						RPD = 0.02	
4 Ethylene							
1	1.792	1.793	-0.001	2933658	25.5	26.6	
2	4.032	4.032	0.000	1284690	25.5	26.8	
						RPD = 0.69	
5 Propane							
1	2.534	2.528	0.006	5864755	40.1	40.9	
2	5.932	5.928	0.004	2613101	40.1	41.7	
						RPD = 1.89	
6 Acetylene							M
1	4.034	4.015	0.019	837564	23.7	24.4	
2	4.136	4.137	-0.001	545422	23.7	25.2	M
						RPD = 3.31	
7 Butane							
1	4.304	4.286	0.018	6888912	52.9	52.5	
2	7.381	7.375	0.006	3316499	52.9	52.3	
						RPD = 0.43	
8 isobutylene							
1	5.179	5.163	0.016	4611649	51.1	51.7	
2	7.231	7.227	0.004	2147651	51.1	51.7	
						RPD = 0.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

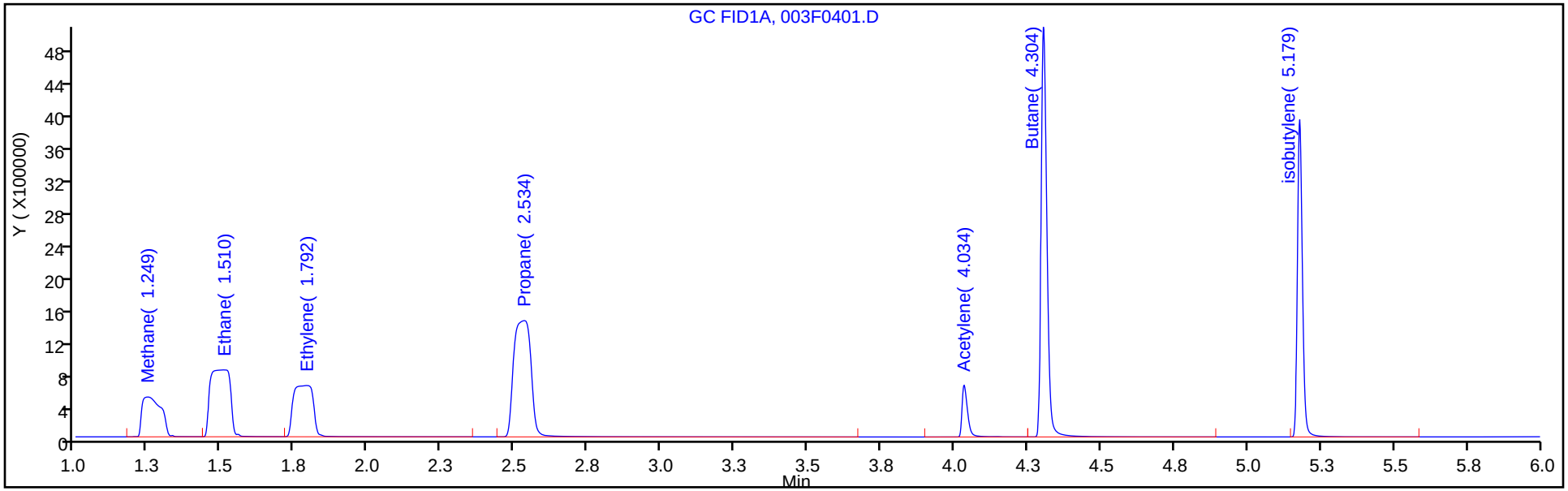
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

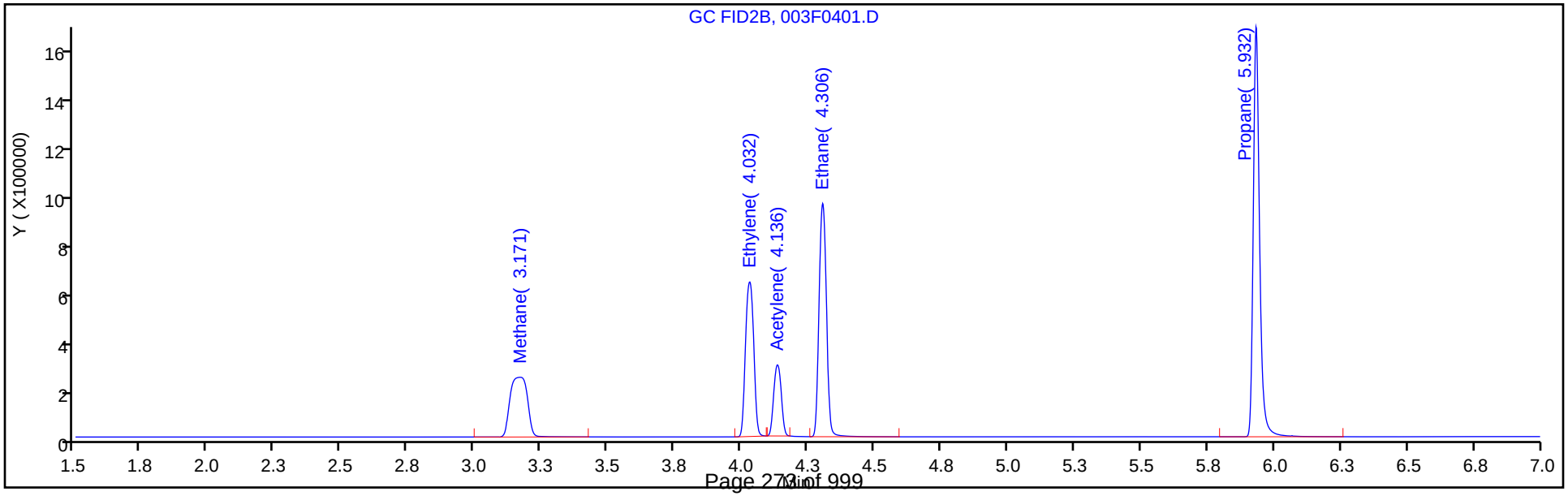
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L4			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

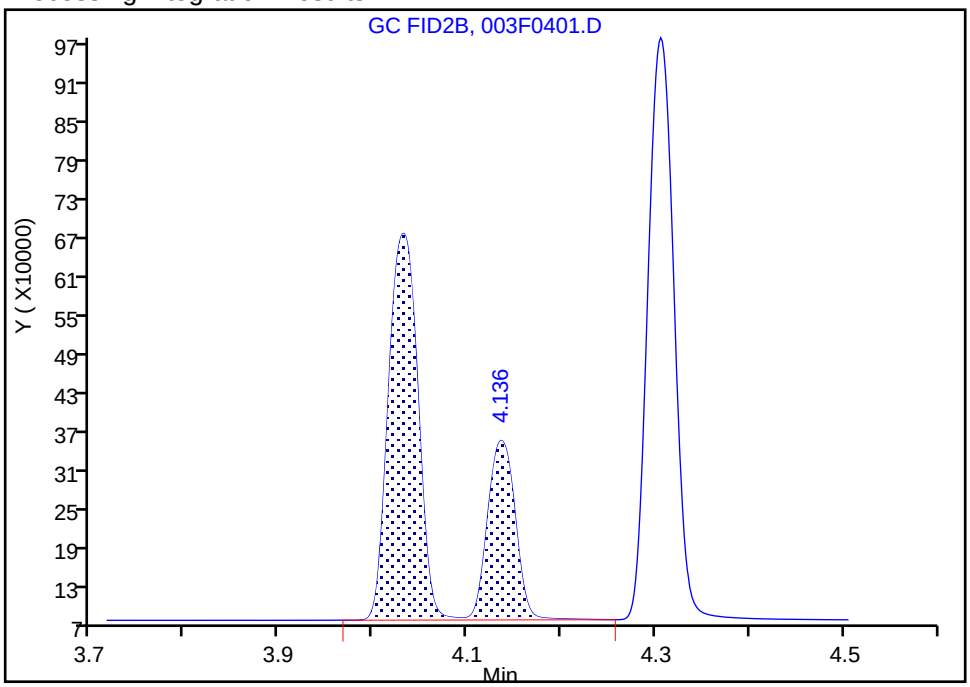
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J		
Lims ID:	IC L4				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

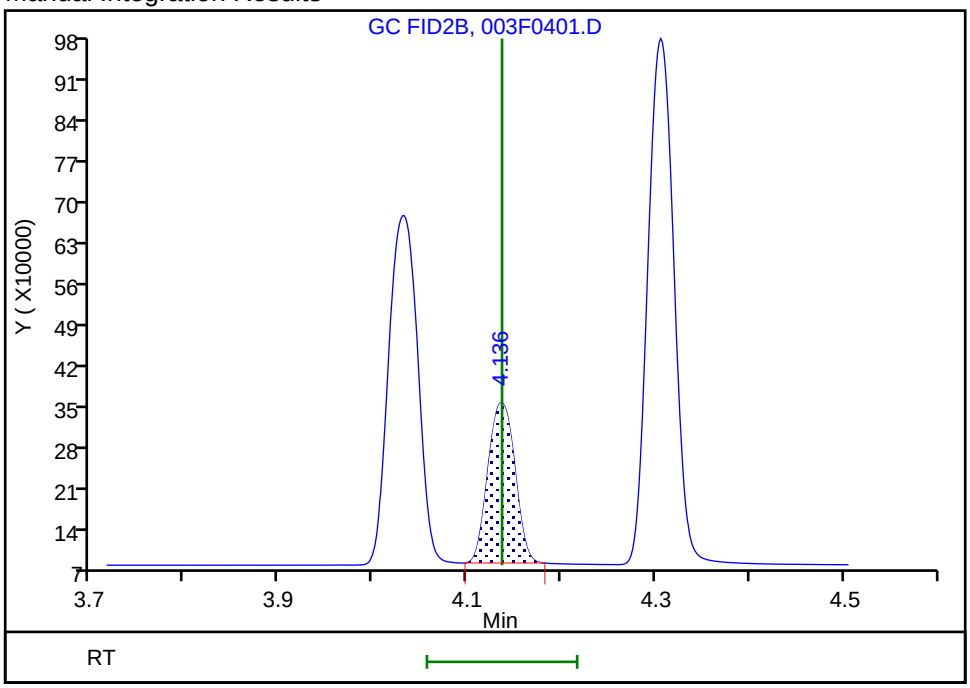
Processing Integration Results

RT: 4.14
Area: 1861367
Amount: 51.616625
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 545422
Amount: 25.244597
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:46:16

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 16-May-2020 12:02:59 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT 5
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	10173489	73.0	70.4	
2	3.172	3.172	0.000	4836394	73.0	70.4	
						RPD = 0.05	
3 Ethane							
1	1.511	1.511	0.000	18547040	136.9	136.3	
2	4.305	4.305	0.000	8282362	136.9	135.7	
						RPD = 0.50	
4 Ethylene							M
1	1.793	1.793	0.000	14030935	127.7	127.3	
2	4.032	4.032	0.000	6120221	127.7	127.7	M
						RPD = 0.29	
5 Propane							
1	2.528	2.528	0.000	28325635	200.7	197.7	
2	5.928	5.928	0.000	12604888	200.7	201.3	
						RPD = 1.77	
6 Acetylene							Ma
1	4.015	4.015	0.000	3792795	118.5	110.6	M
2	4.137	4.137	0.000	2629705	118.5	121.7	M
						RPD = 9.57	
7 Butane							Ma
1	4.286	4.286	0.000	34343170	264.5	260.4	M
2	7.375	7.375	0.000	16648646	264.5	261.1	a
						RPD = 0.27	
8 isobutylene							
1	5.163	5.163	0.000	23123734	255.4	259.0	
2	7.227	7.227	0.000	10785387	255.4	259.5	
						RPD = 0.19	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

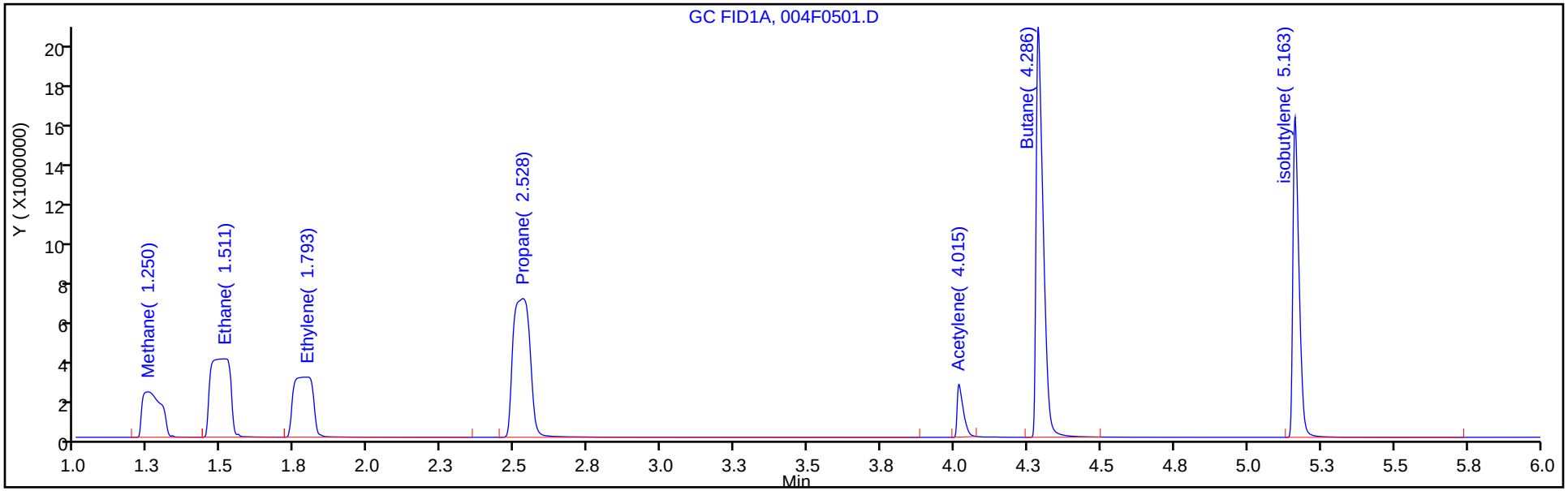
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

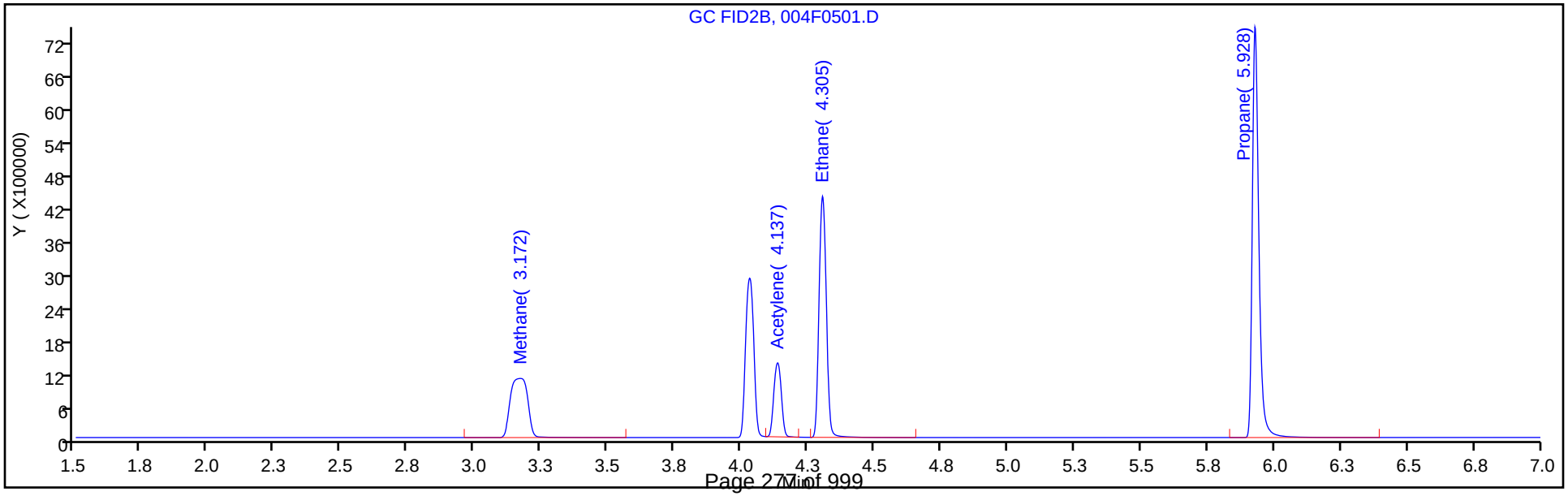
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICRT L5			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

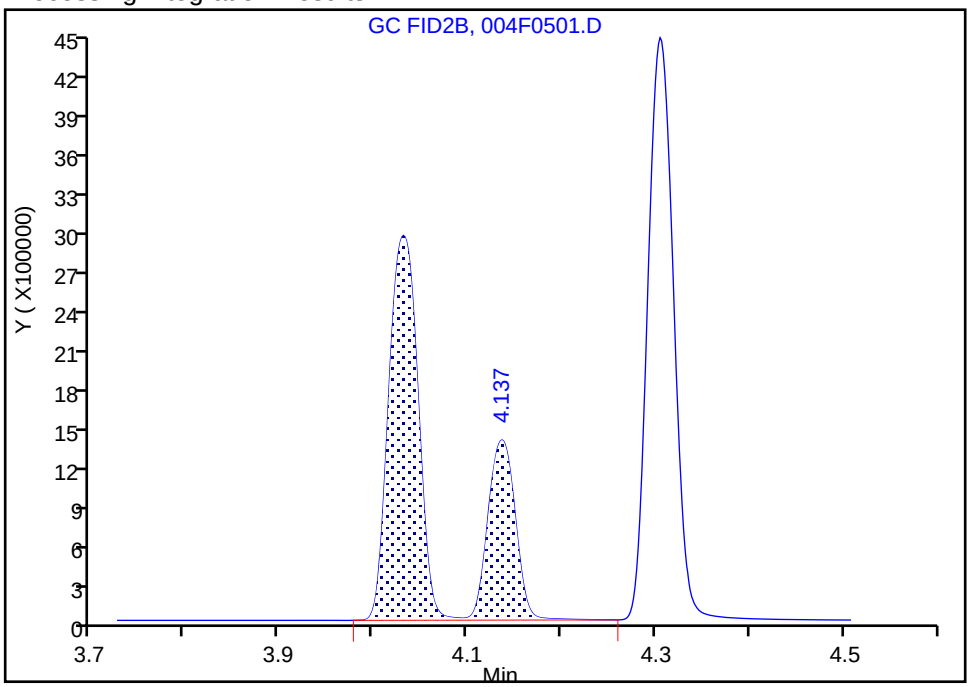
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

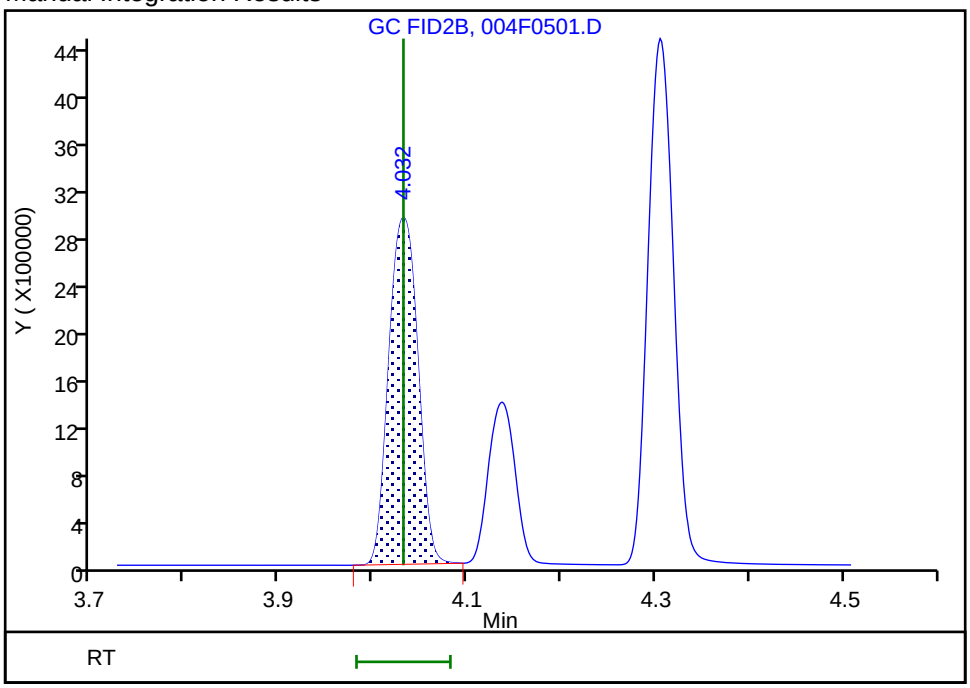
Processing Integration Results

RT: 4.14
Area: 8876599
Amount: 170.8990
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6120221
Amount: 127.6810
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:06:47

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

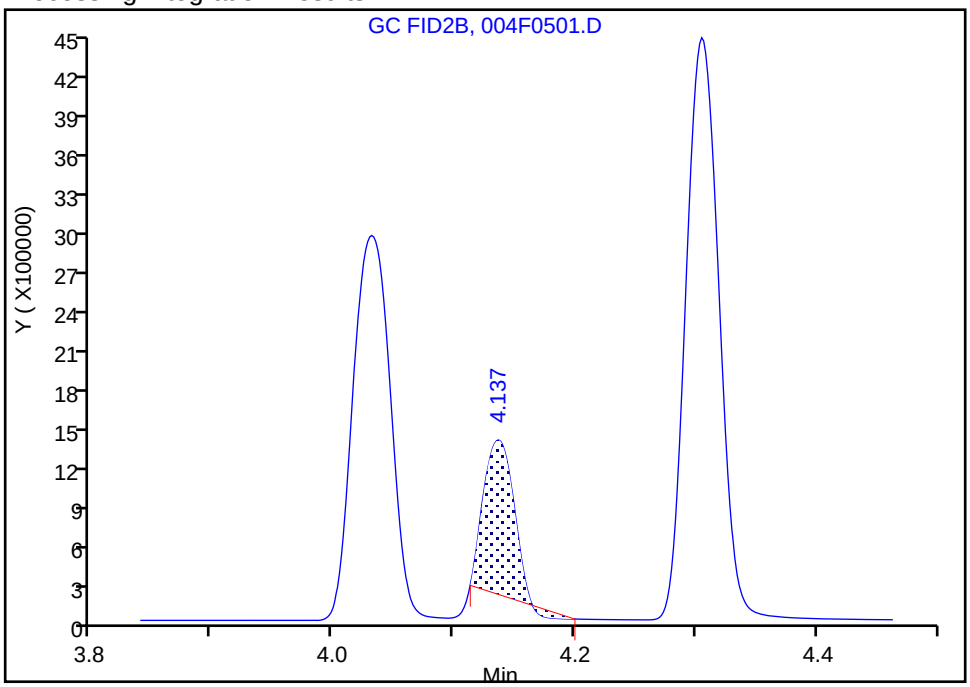
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

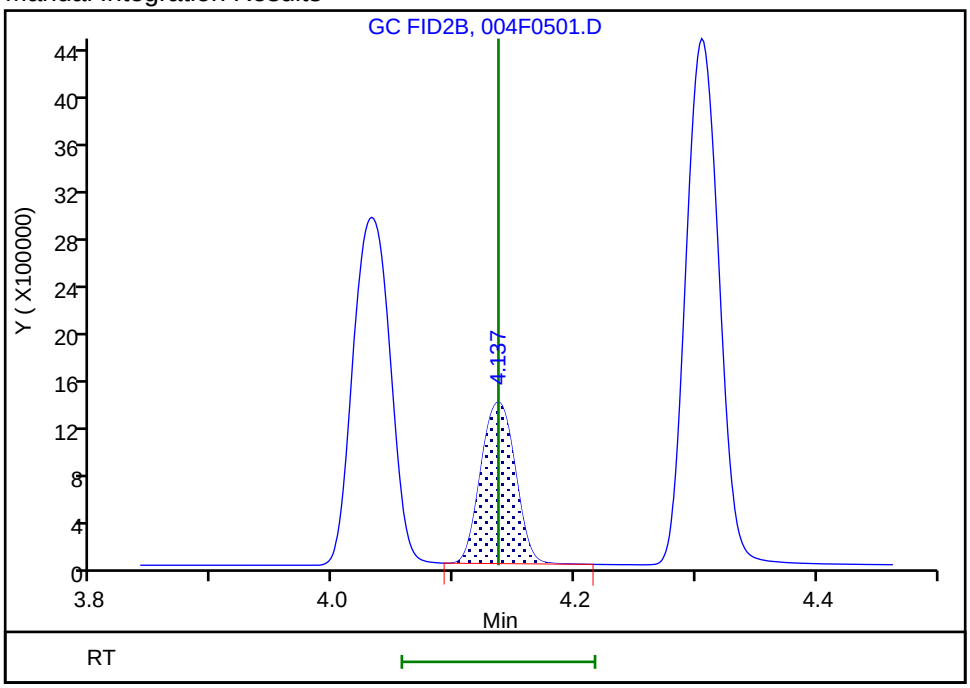
Processing Integration Results

RT: 4.14
Area: 1926231
Amount: 70.054658
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 2629705
Amount: 121.7146
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:07:42

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2020 12:19:27 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 6
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	21349465	146.0	148.2	
2	3.172	3.172	0.000	10129316	146.0	147.7	
						RPD = 0.31	
3 Ethane							
1	1.512	1.511	0.001	38849075	273.7	285.6	
2	4.306	4.305	0.001	17331467	273.7	283.9	
						RPD = 0.60	
4 Ethylene							
1	1.785	1.793	-0.008	29199476	255.3	264.9	
2	4.032	4.032	0.000	12731776	255.3	265.6	
						RPD = 0.26	
5 Propane							
1	2.522	2.528	-0.006	59231481	401.4	413.5	
2	5.926	5.928	-0.002	26366224	401.4	421.0	
						RPD = 1.80	
6 Acetylene							M
1	4.002	4.015	-0.013	8293493	237.0	241.8	
2	4.137	4.137	0.000	5438964	237.0	251.7	M
						RPD = 4.01	
7 Butane							
1	4.270	4.286	-0.016	71750490	529.0	543.6	
2	7.369	7.375	-0.006	34602301	529.0	542.3	
						RPD = 0.25	
8 isobutylene							Ma
1	5.150	5.163	-0.013	47351348	510.8	530.4	M
2	7.222	7.227	-0.005	22287396	510.8	536.3	a
						RPD = 1.10	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

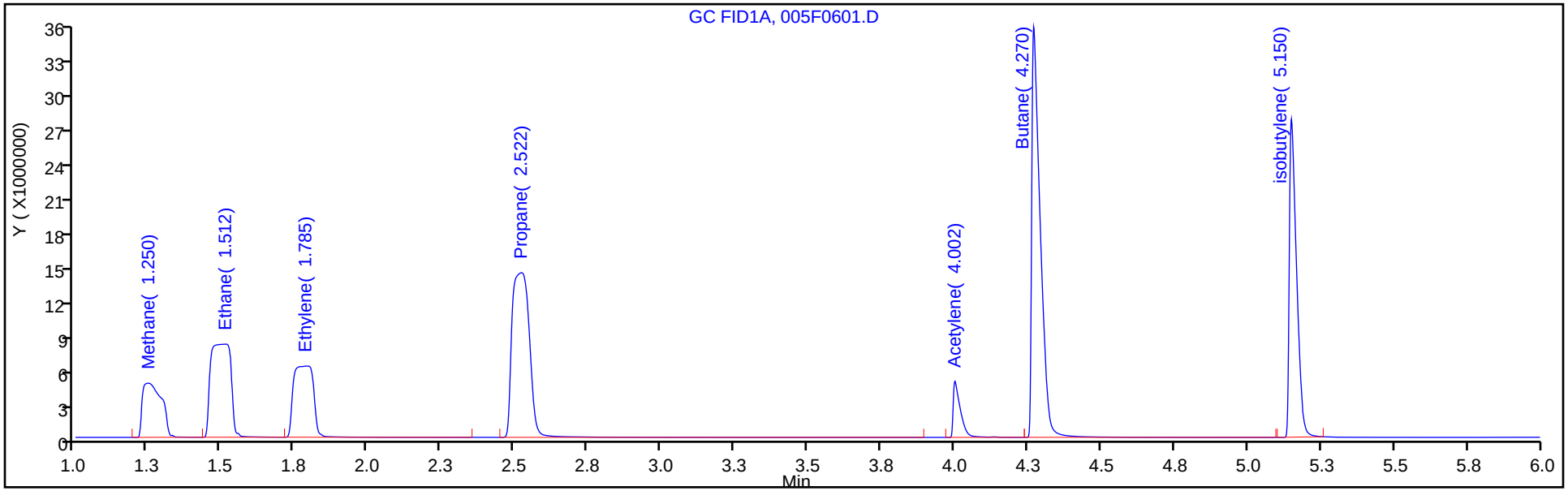
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

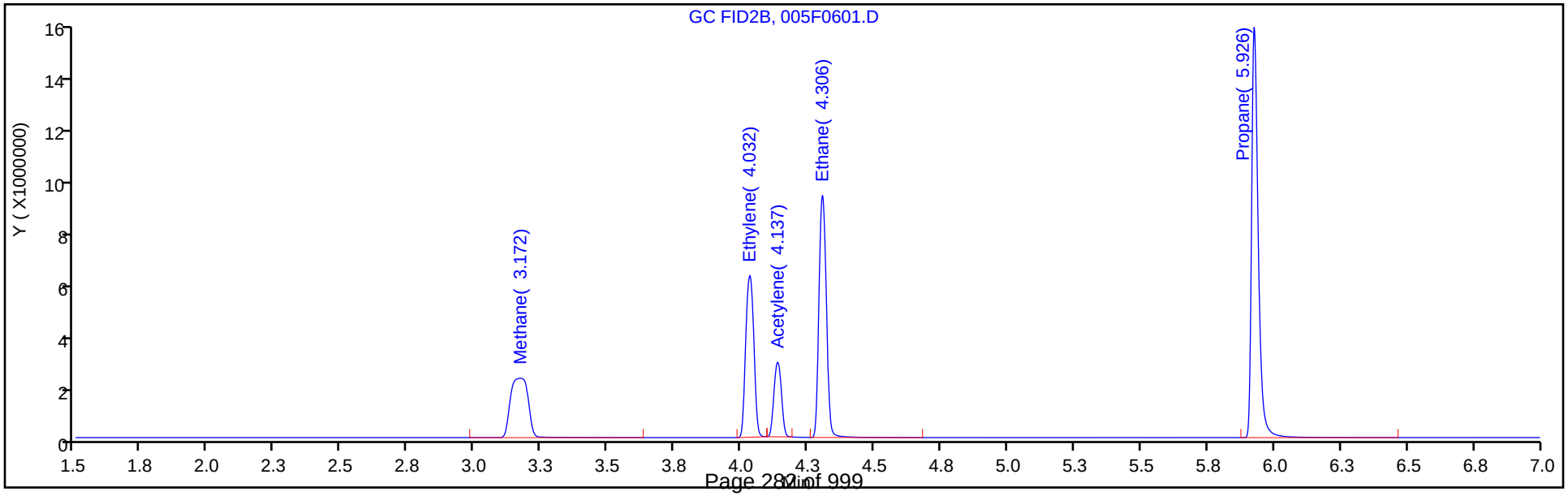
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L6			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

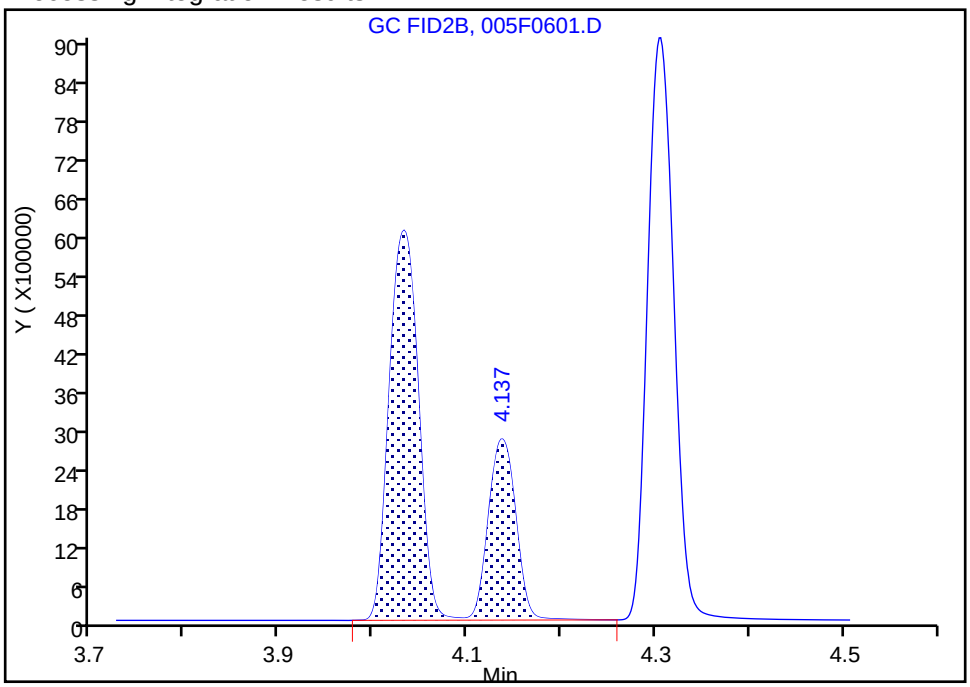
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J		
Lims ID:	IC L6				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	5	Worklist Smp#:	11
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

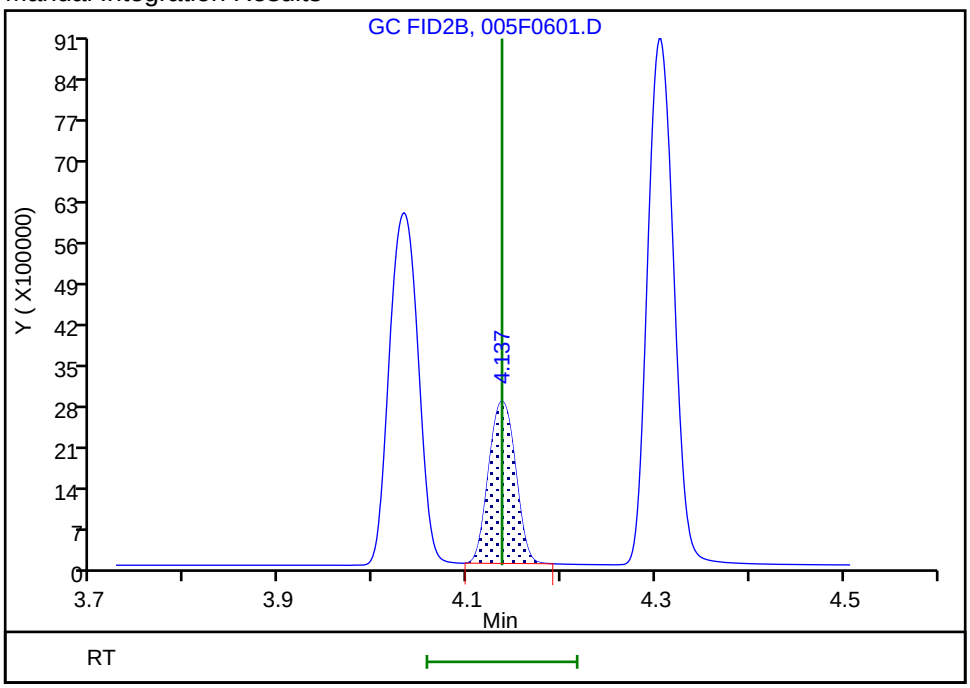
Processing Integration Results

RT: 4.14
Area: 18449274
Amount: 510.5285
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 5438964
Amount: 251.7399
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:09:29
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2020 12:35:56 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.243	1.250	-0.007	40706597	292.0	282.9	
2	3.168	3.172	-0.004	19242711	292.0	280.9	
						RPD = 0.71	
3 Ethane							
1	1.508	1.511	-0.003	74364849	547.4	546.6	
2	4.302	4.305	-0.003	33180606	547.4	543.4	
						RPD = 0.58	
4 Ethylene							
1	1.785	1.793	-0.008	55873290	510.7	507.0	
2	4.028	4.032	-0.004	24365732	510.7	508.3	
						RPD = 0.27	
5 Propane							
1	2.510	2.528	-0.018	113846992	802.8	794.7	
2	5.920	5.928	-0.008	50751227	802.8	810.3	
						RPD = 1.94	
6 Acetylene							M
1	3.983	4.015	-0.032	15971476	474.1	465.7	
2	4.135	4.137	-0.002	10316086	474.1	477.5	M
						RPD = 2.49	
7 Butane							
1	4.250	4.286	-0.036	137944774	1058.1	1044.9	
2	7.362	7.375	-0.013	67311032	1058.1	1054.6	
						RPD = 0.92	
8 isobutylene							
1	5.133	5.163	-0.030	92637372	1021.5	1037.7	
2	7.217	7.227	-0.010	43289193	1021.5	1041.6	
						RPD = 0.38	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

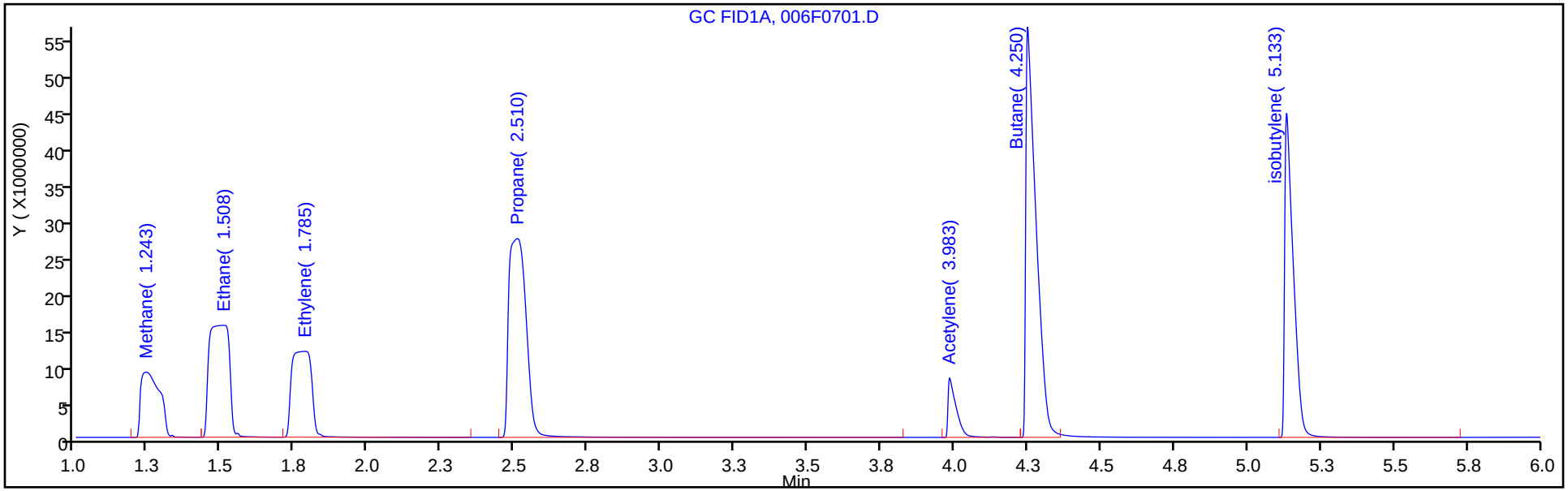
RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

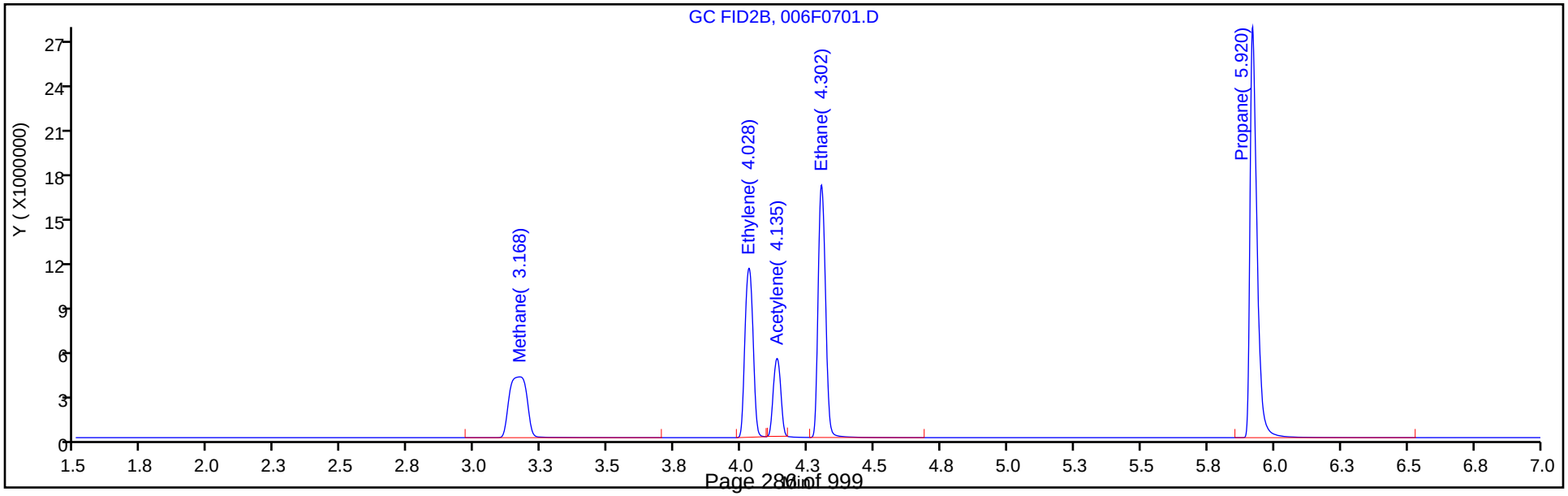
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D				
Injection Date:	16-May-2020 12:35:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L7			Worklist Smp#:	12
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

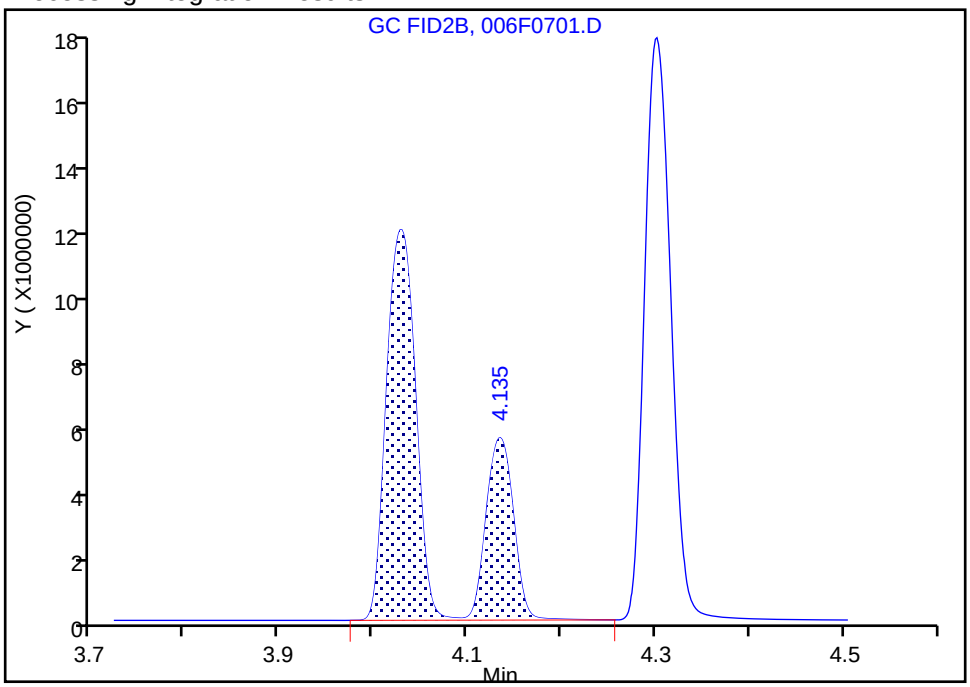
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D				
Injection Date:	16-May-2020 12:35:56	Instrument ID:	VGC_J		
Lims ID:	IC L7				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	6	Worklist Smp#:	12
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

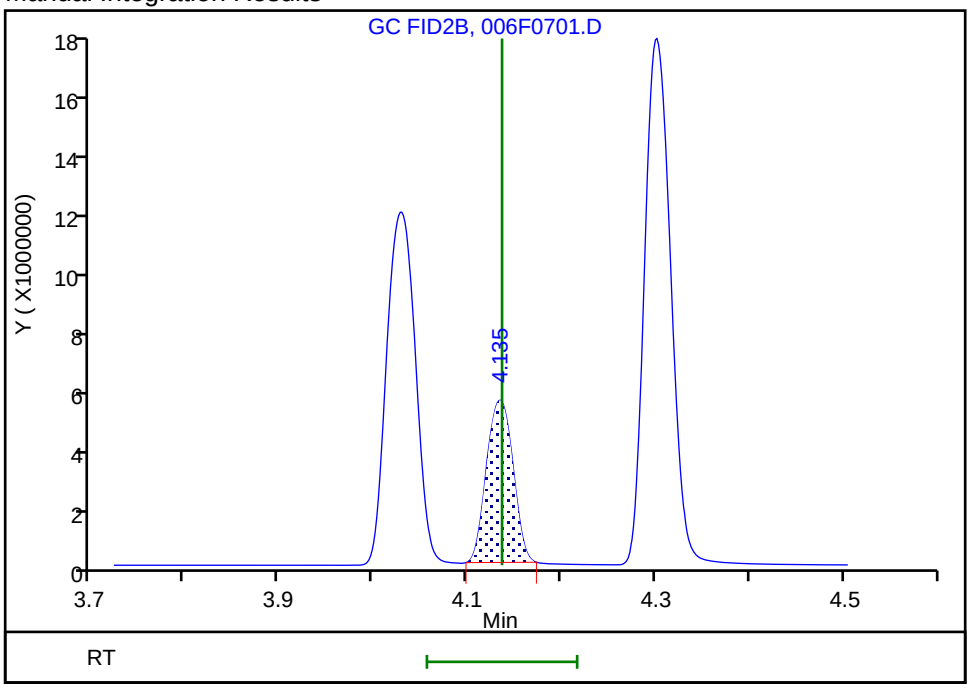
Processing Integration Results

RT: 4.13
Area: 35374141
Amount: 990.6352
Amount Units: ug/l



Manual Integration Results

RT: 4.13
Area: 10316086
Amount: 477.4751
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:16:23

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	16-May-2020 12:52:27	ALS Bottle#:	7	Worklist Smp#:	13
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 8				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	256592942	1806.9	1784.9	
2	3.168	3.172	-0.004	121745624	1806.9	1778.4	
						RPD = 0.36	

Reagents:

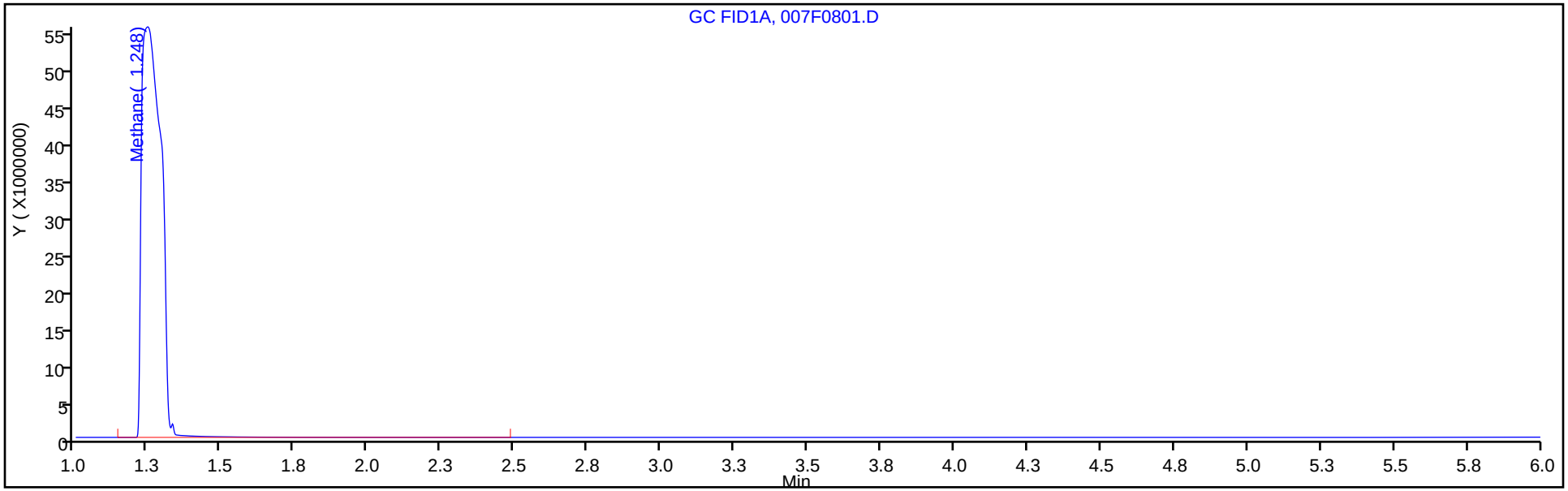
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

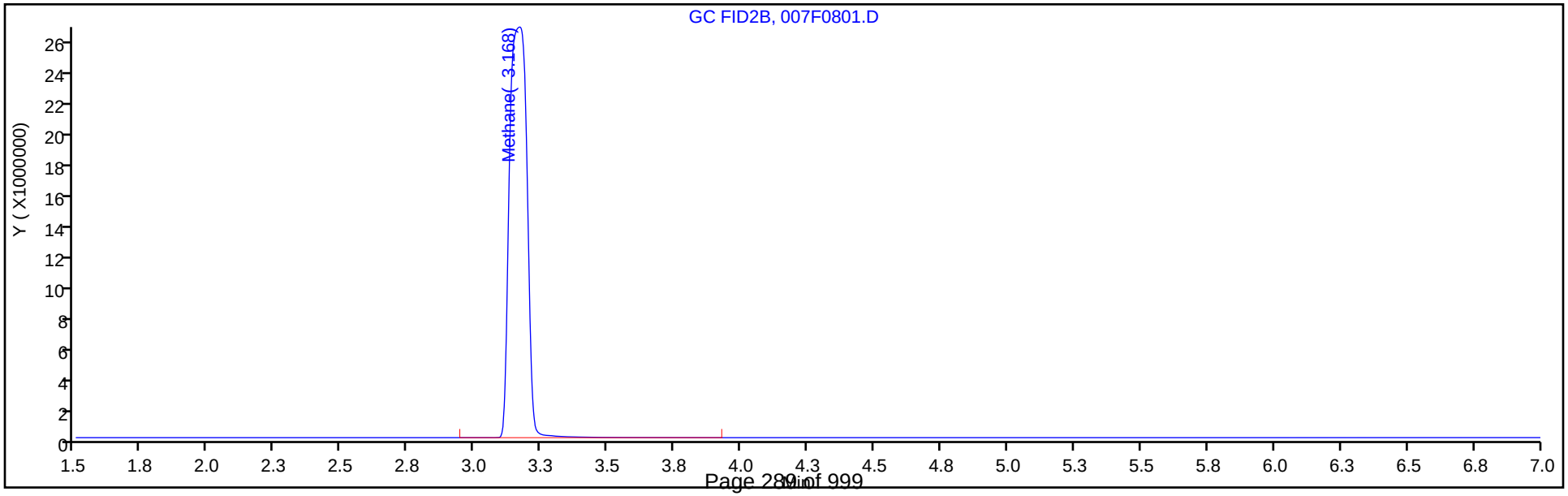
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Injection Date:	16-May-2020 12:52:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L8			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	16-May-2020 13:08:56	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 9				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.245	1.250	-0.005	1008615918	7227.8	7016.9	
2	3.160	3.172	-0.012	484781088	7227.8	7082.2	
						RPD = 0.93	

Reagents:

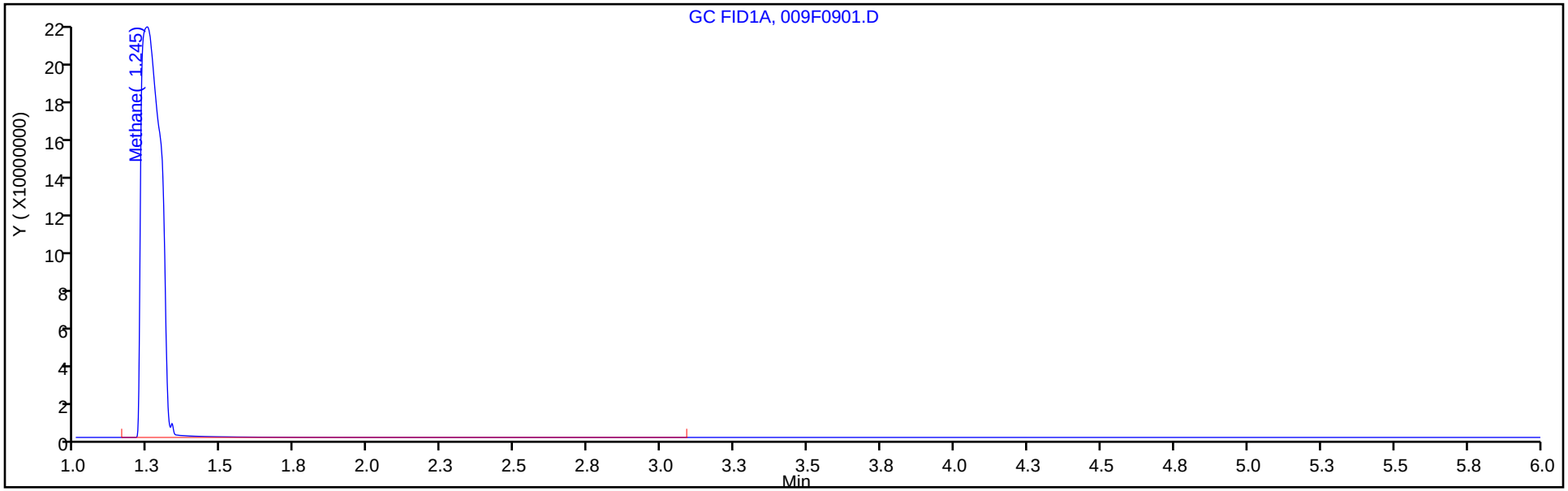
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

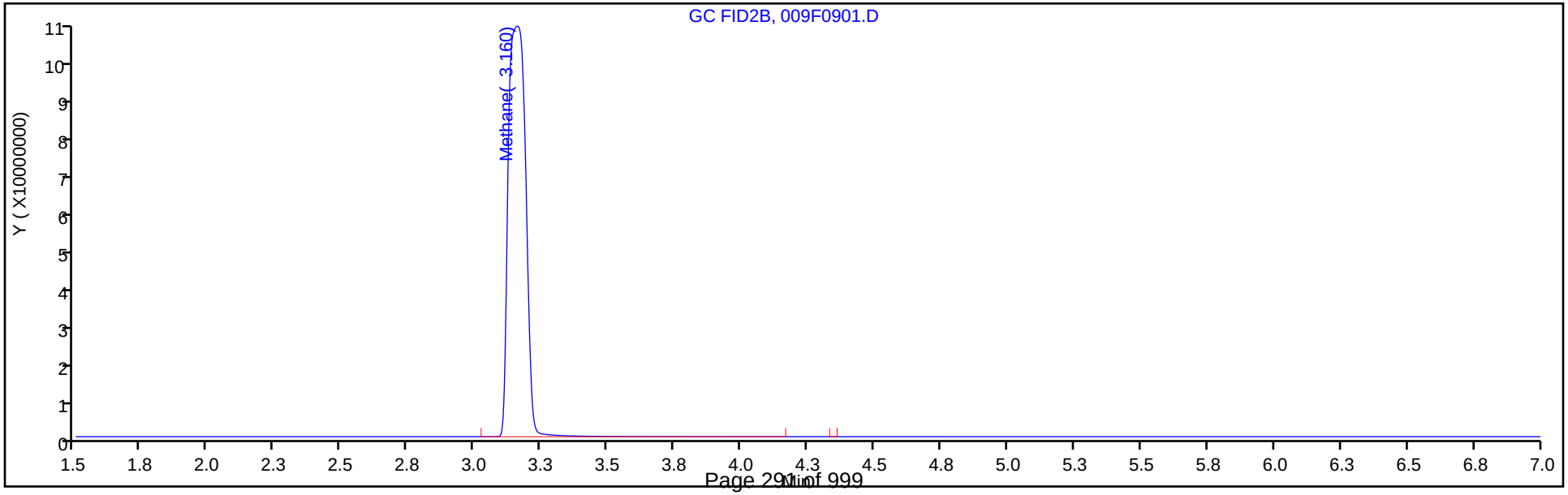
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Injection Date:	16-May-2020 13:08:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L9			Worklist Smp#:	14
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		158281		80.1	73.0	9.7	20.0
Ethane	Ave	136043	153595		155	137	12.9	20.0
Ethylene	Ave	110213	122313		142	128	11.0	20.0
Acetylene	Ave	34294	36540		126	119	6.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.21	1.29
Ethane	1.51	1.46	1.56
Ethylene	1.79	1.74	1.84
Acetylene	4.01	3.94	4.10

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-May-2020 13:25:26 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: MEIERG Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 09:03:52 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	11555066	73.0	80.1	
2	3.171	3.172	-0.001	5497214	73.0	80.1	
						RPD = 0.01	
3 Ethane							
1	1.513	1.511	0.002	21020301	136.9	154.5	
2	4.305	4.305	0.000	9395211	136.9	153.9	
						RPD = 0.41	
4 Ethylene							
1	1.791	1.793	-0.002	15615273	127.7	141.7	
2	4.031	4.032	-0.001	6823571	127.7	142.4	
						RPD = 0.47	
5 Propane							
1	2.524	2.528	-0.004	32214966	200.7	224.9	
2	5.930	5.928	0.002	14336595	200.7	228.9	
						RPD = 1.77	
6 Acetylene							M
1	4.008	4.015	-0.007	4330795	118.5	126.3	
2	4.136	4.137	-0.001	2842552	118.5	131.6	M
						RPD = 4.10	
7 Butane							Ma
1	4.279	4.286	-0.007	38944801	264.5	295.2	M
2	7.373	7.375	-0.002	18966689	264.5	297.4	a
						RPD = 0.73	
8 isobutylene							
1	5.156	5.163	-0.007	25717354	255.4	288.1	
2	7.226	7.227	-0.001	12003603	255.4	288.8	
						RPD = 0.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

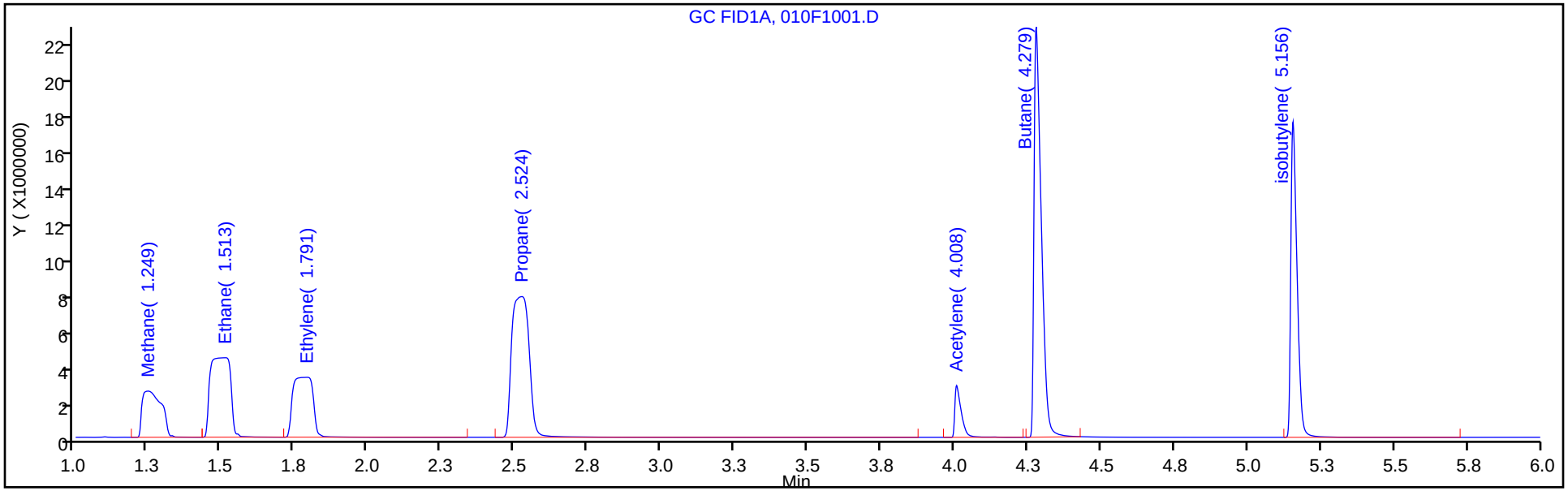
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 09:03:52 Chrom Revision: 2.3 05-May-2020 17:48:18

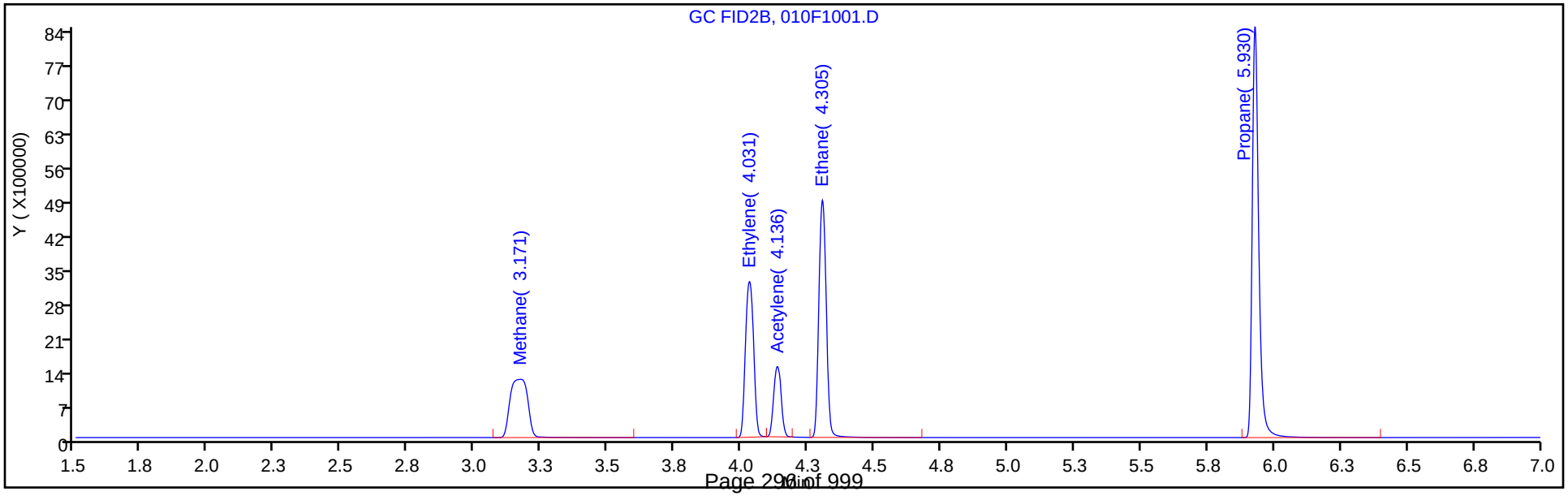
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		75301		80.1	73.0	9.7	20.0
Ethylene	Ave	47934	53448		142	128	11.5	20.0
Acetylene	Ave	21605	23983		132	119	11.0	20.0
Ethane	Ave	61056	68651		154	137	12.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.17	3.13	3.21
Ethylene	4.03	3.98	4.08
Acetylene	4.14	4.06	4.22
Ethane	4.31	4.26	4.36

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-May-2020 13:25:26 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: MEIERG Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 09:03:52 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	11555066	73.0	80.1	
2	3.171	3.172	-0.001	5497214	73.0	80.1	
						RPD = 0.01	
3 Ethane							
1	1.513	1.511	0.002	21020301	136.9	154.5	
2	4.305	4.305	0.000	9395211	136.9	153.9	
						RPD = 0.41	
4 Ethylene							
1	1.791	1.793	-0.002	15615273	127.7	141.7	
2	4.031	4.032	-0.001	6823571	127.7	142.4	
						RPD = 0.47	
5 Propane							
1	2.524	2.528	-0.004	32214966	200.7	224.9	
2	5.930	5.928	0.002	14336595	200.7	228.9	
						RPD = 1.77	
6 Acetylene							M
1	4.008	4.015	-0.007	4330795	118.5	126.3	
2	4.136	4.137	-0.001	2842552	118.5	131.6	M
						RPD = 4.10	
7 Butane							Ma
1	4.279	4.286	-0.007	38944801	264.5	295.2	M
2	7.373	7.375	-0.002	18966689	264.5	297.4	a
						RPD = 0.73	
8 isobutylene							
1	5.156	5.163	-0.007	25717354	255.4	288.1	
2	7.226	7.227	-0.001	12003603	255.4	288.8	
						RPD = 0.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

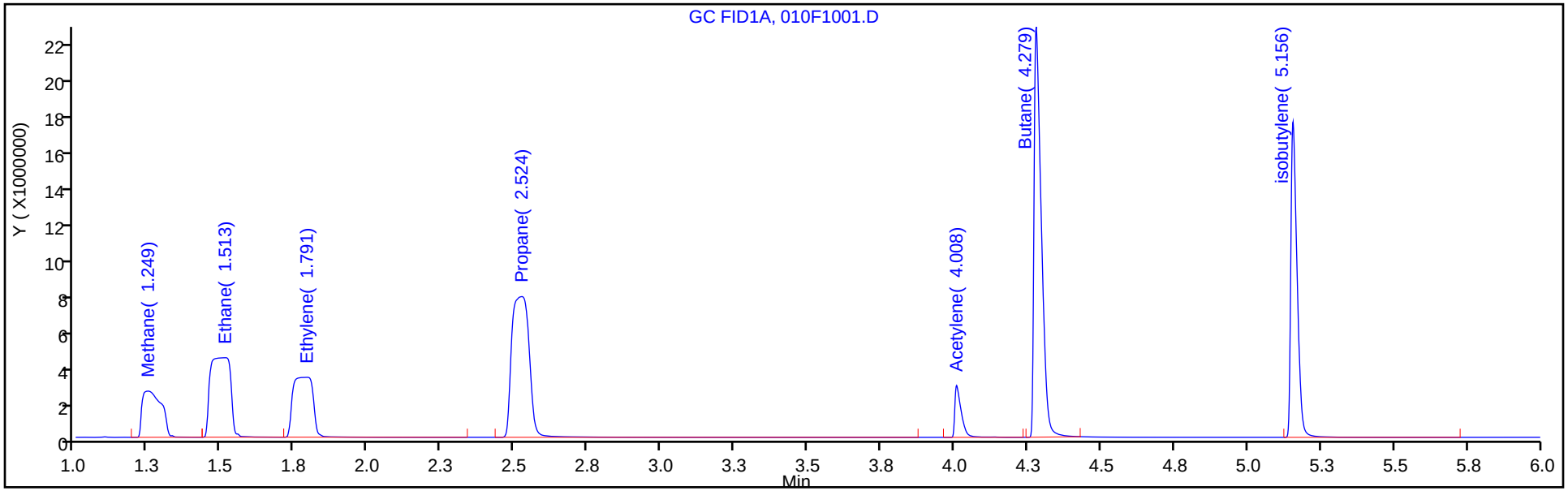
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 09:03:52 Chrom Revision: 2.3 05-May-2020 17:48:18

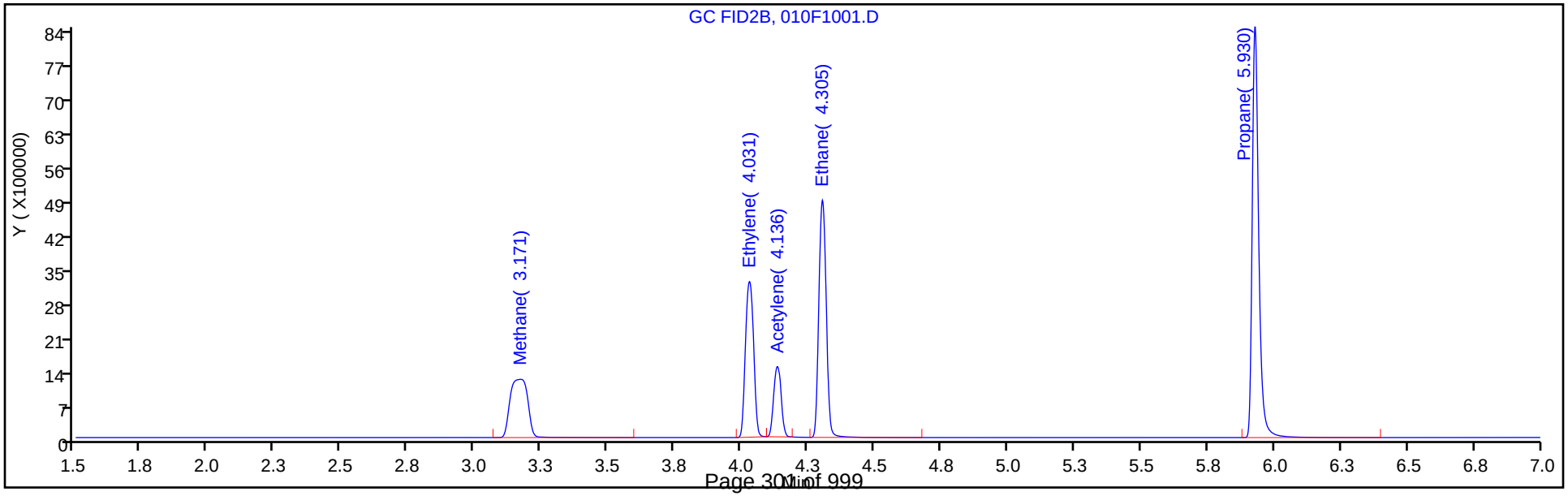
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

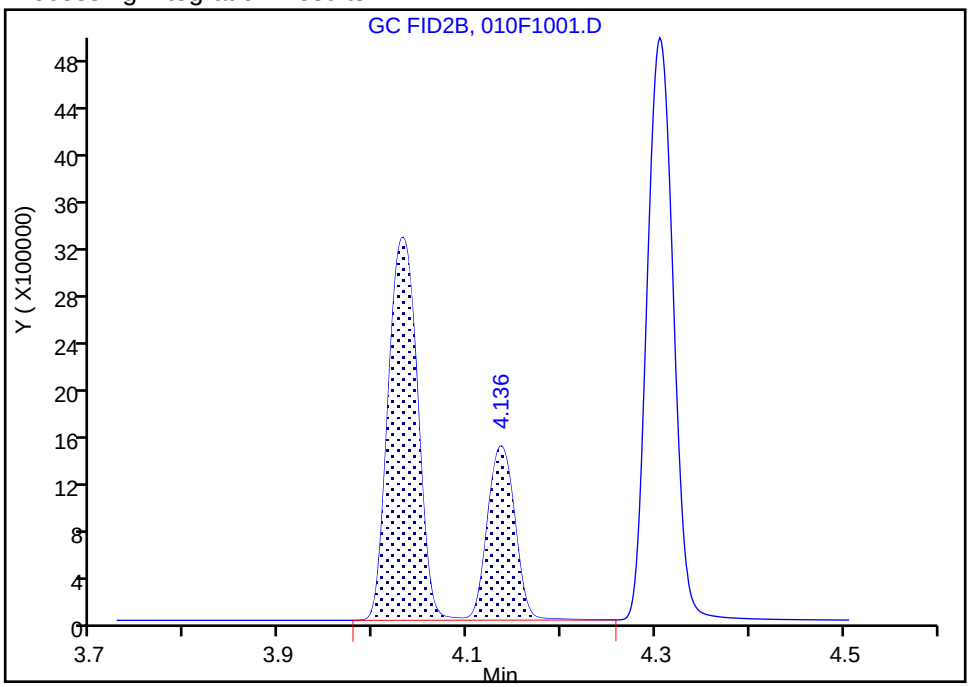
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J		
Lims ID:	ICV				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

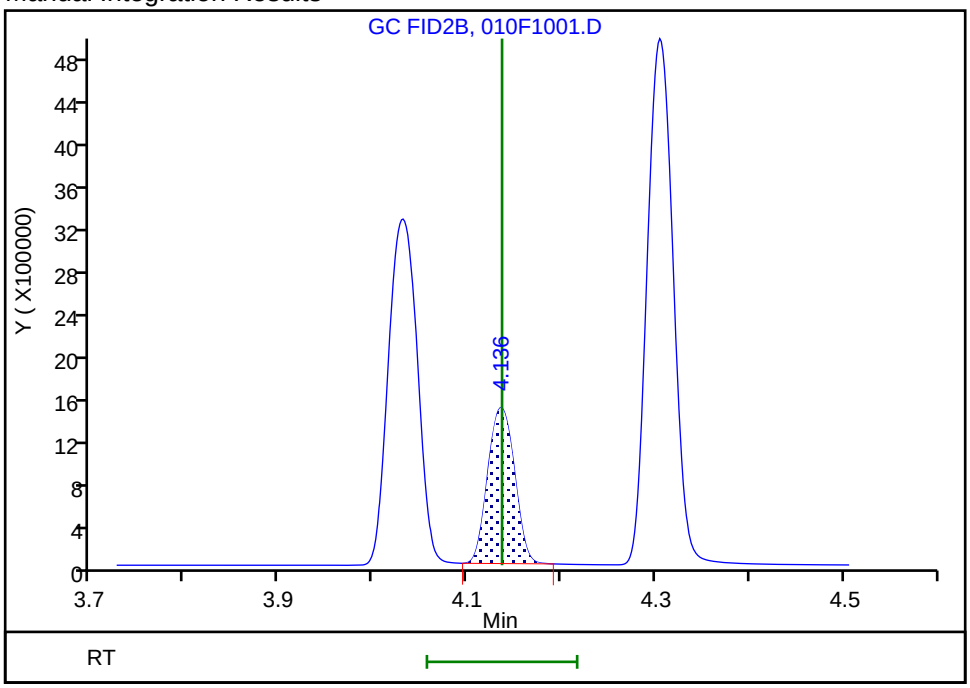
Processing Integration Results

RT: 4.14
Area: 9809067
Amount: 454.0080
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 2842552
Amount: 131.5662
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:28:53

Audit Action: Manually Integrated Audit Reason: Shouldering

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCVRT 280-499633/1 Calibration Date: 06/22/2020 11:07

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		159412		80.6	73.0	10.4	20.0
Ethane	Ave	136043	151210		152	137	11.1	20.0
Ethylene	Ave	110213	119484		138	128	8.4	20.0
Acetylene	Ave	34294	31903		110	119	-7.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCVRT 280-499633/1 Calibration Date: 06/22/2020 11:07

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.22	1.30
Ethane	1.52	1.47	1.57
Ethylene	1.79	1.74	1.84
Acetylene	3.94	3.86	4.02

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222001.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 22-Jun-2020 11:07:46 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Misc. Info.: 280-0092637-001
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:26 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 22-Jun-2020 11:21:06

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.258	1.258	0.000	11637576	73.0	80.6	
2	3.193	3.193	0.000	5544450	73.0	80.7	
						RPD = 0.15	
3 Ethane							
1	1.516	1.516	0.000	20693972	136.9	152.1	
2	4.312	4.312	0.000	9247904	136.9	151.5	
						RPD = 0.43	
4 Ethylene							
1	1.786	1.786	0.000	15254111	127.7	138.4	
2	4.042	4.042	0.000	6680911	127.7	139.4	
						RPD = 0.70	
5 Propane							
1	2.483	2.483	0.000	30865482	200.7	215.5	
2	5.927	5.927	0.000	14663161	200.7	234.1	
						RPD = 8.30	
6 Acetylene							M
1	3.938	3.938	0.000	3781182	118.5	110.3	
2	4.145	4.145	0.000	2452271	118.5	113.5	M
						RPD = 2.90	
7 Butane							
1	4.233	4.233	0.000	35577213	264.5	269.7	
2	7.368	7.368	0.000	16135515	264.5	253.0	
						RPD = 6.38	
8 isobutylene							M
1	5.133	5.133	0.000	23304285	255.4	261.1	
2	7.222	7.222	0.000	10829717	255.4	260.6	M
						RPD = 0.18	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

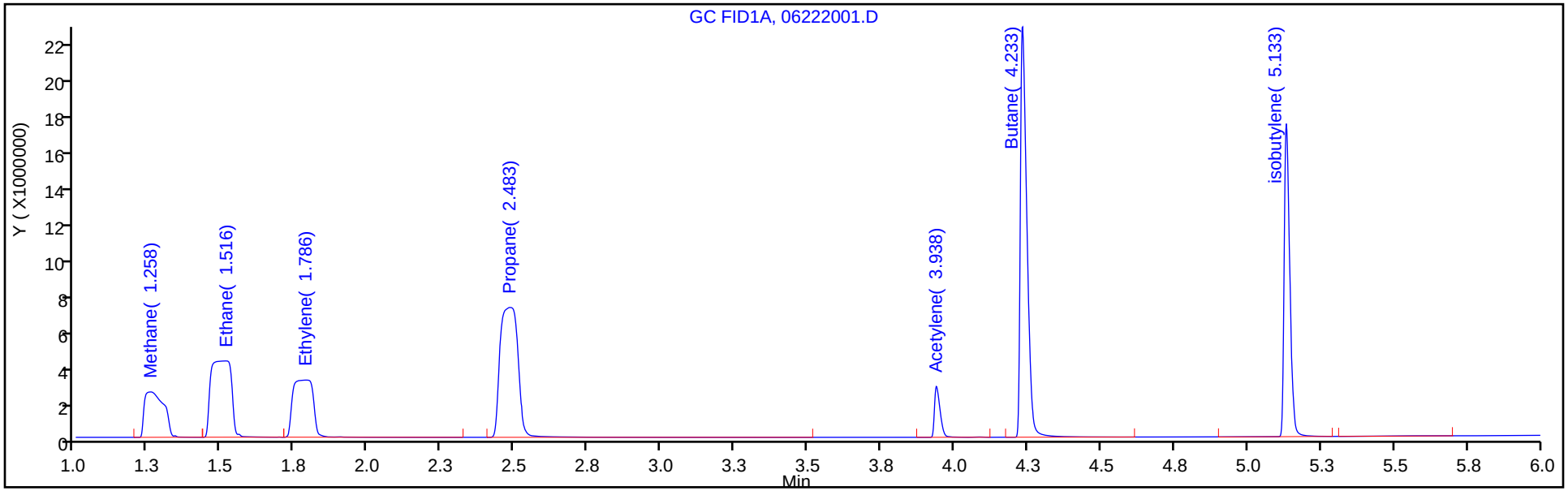
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:26 Chrom Revision: 2.3 21-Jun-2020 18:30:46

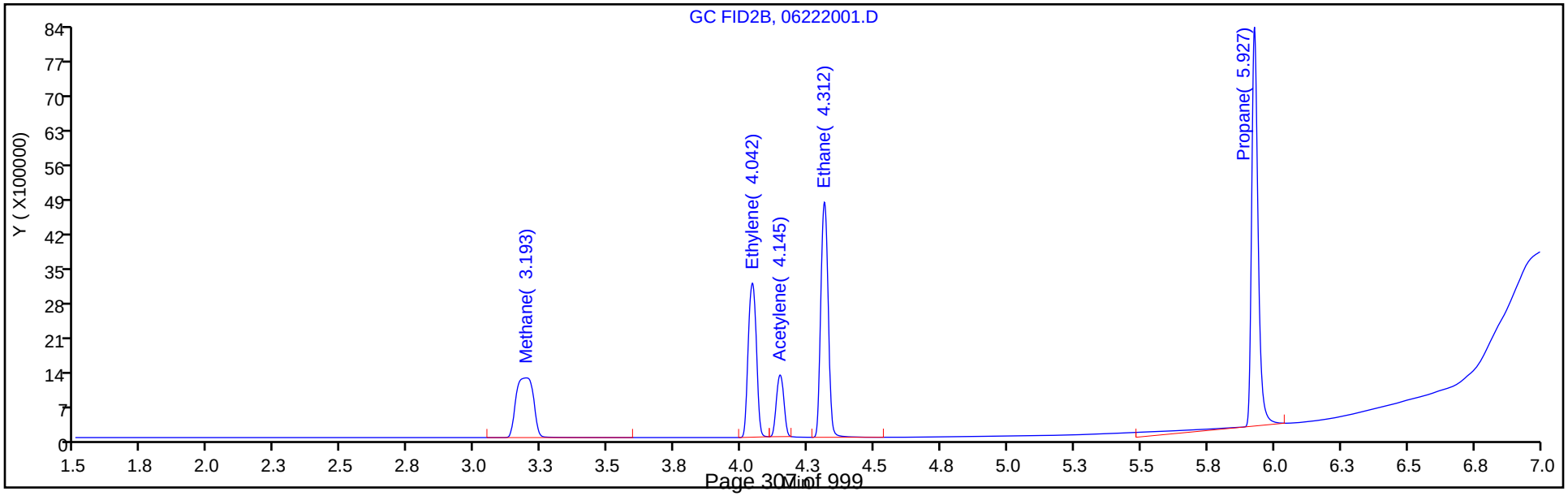
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222001.D				
Injection Date:	22-Jun-2020 11:07:46	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccvrt			Worklist Smp#:	1
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCVRT 280-499633/1 Calibration Date: 06/22/2020 11:07

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		75948		80.7	73.0	10.6	20.0
Ethylene	Ave	47934	52331		139	128	9.2	20.0
Acetylene	Ave	21605	20690		114	119	-4.2	20.0
Ethane	Ave	61056	67574		151	137	10.7	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCVRT 280-499633/1 Calibration Date: 06/22/2020 11:07

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.19	3.15	3.23
Ethylene	4.04	3.99	4.09
Acetylene	4.15	4.07	4.23
Ethane	4.31	4.26	4.36

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222001.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 22-Jun-2020 11:07:46 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Misc. Info.: 280-0092637-001
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:26 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 22-Jun-2020 11:21:06

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.258	1.258	0.000	11637576	73.0	80.6	
2	3.193	3.193	0.000	5544450	73.0	80.7	
						RPD = 0.15	
3 Ethane							
1	1.516	1.516	0.000	20693972	136.9	152.1	
2	4.312	4.312	0.000	9247904	136.9	151.5	
						RPD = 0.43	
4 Ethylene							
1	1.786	1.786	0.000	15254111	127.7	138.4	
2	4.042	4.042	0.000	6680911	127.7	139.4	
						RPD = 0.70	
5 Propane							
1	2.483	2.483	0.000	30865482	200.7	215.5	
2	5.927	5.927	0.000	14663161	200.7	234.1	
						RPD = 8.30	
6 Acetylene							M
1	3.938	3.938	0.000	3781182	118.5	110.3	
2	4.145	4.145	0.000	2452271	118.5	113.5	M
						RPD = 2.90	
7 Butane							
1	4.233	4.233	0.000	35577213	264.5	269.7	
2	7.368	7.368	0.000	16135515	264.5	253.0	
						RPD = 6.38	
8 isobutylene							M
1	5.133	5.133	0.000	23304285	255.4	261.1	
2	7.222	7.222	0.000	10829717	255.4	260.6	M
						RPD = 0.18	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

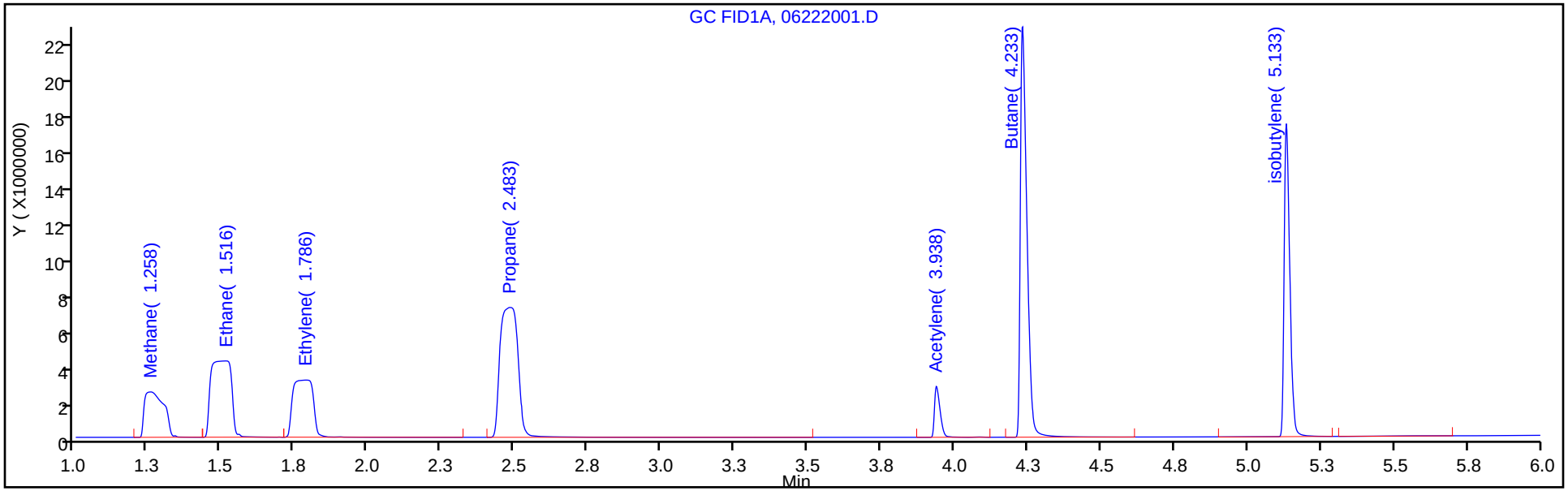
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:26 Chrom Revision: 2.3 21-Jun-2020 18:30:46

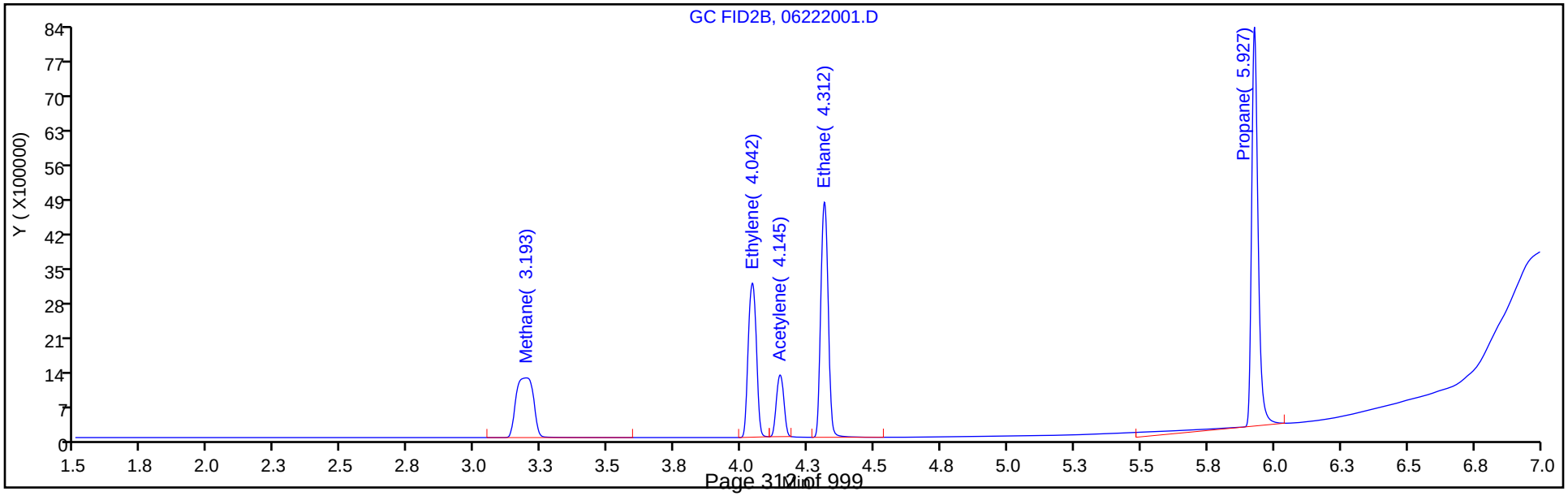
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222001.D				
Injection Date:	22-Jun-2020 11:07:46	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccvrt			Worklist Smp#:	1
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

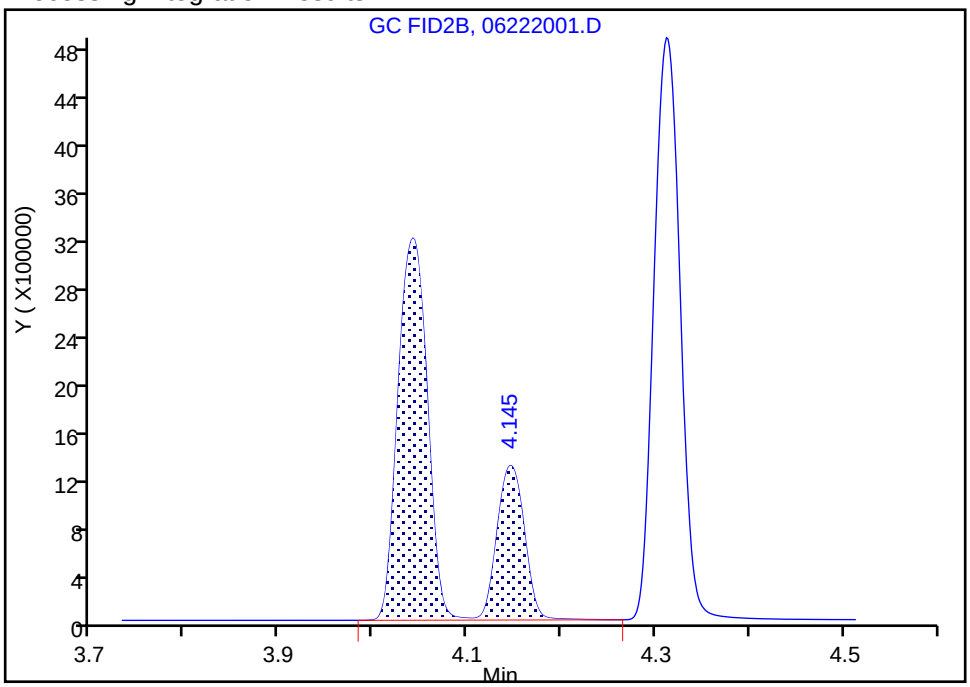
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222001.D				
Injection Date:	22-Jun-2020 11:07:46	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	gm	ALS Bottle#:	1	Worklist Smp#:	1
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

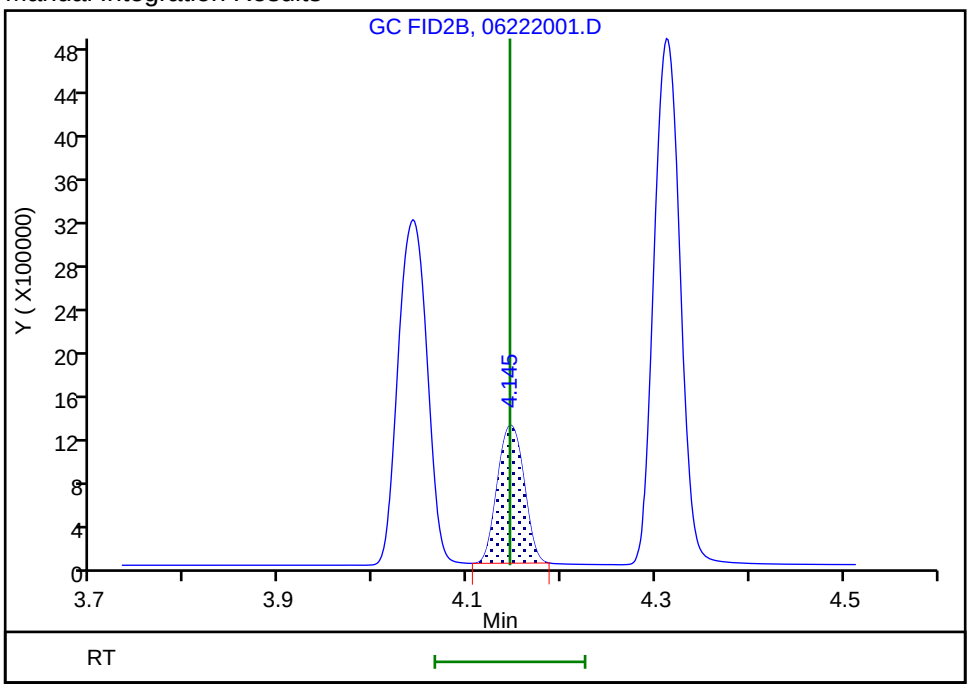
Processing Integration Results

RT: 4.15
Area: 9278833
Amount: 429.4664
Amount Units: ug/l



Manual Integration Results

RT: 4.15
Area: 2452271
Amount: 113.5022
Amount Units: ug/l



Reviewer: meierg, 22-Jun-2020 11:20:26

Audit Action: Manually Integrated Audit Reason: Shouldering

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/16 Calibration Date: 06/22/2020 15:22

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222016.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		159582		80.7	73.0	10.6	20.0
Ethane	Ave	136043	148763		150	137	9.4	20.0
Ethylene	Ave	110213	117029		136	128	6.2	20.0
Acetylene	Ave	34294	33066		114	119	-3.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/16 Calibration Date: 06/22/2020 15:22

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222016.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.22	1.30
Ethane	1.50	1.47	1.57
Ethylene	1.78	1.74	1.84
Acetylene	3.95	3.86	4.02

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2020 15:22:17 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: 280-0092637-016
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:11 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 24-Jun-2020 10:34:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.247	1.258	-0.011	11650047	73.0	80.7	
2	3.159	3.193	-0.034	5574179	73.0	81.2	
						RPD = 0.58	
3 Ethane							
1	1.504	1.516	-0.012	20359036	136.9	149.7	
2	4.294	4.312	-0.018	9156411	136.9	150.0	
						RPD = 0.21	
4 Ethylene							M
1	1.782	1.786	-0.004	14940639	127.7	135.6	
2	4.021	4.042	-0.021	6533523	127.7	136.3	M
						RPD = 0.55	
5 Propane							
1	2.474	2.483	-0.009	30293224	200.7	211.5	
2	5.918	5.927	-0.009	13511868	200.7	215.7	
						RPD = 2.00	
6 Acetylene							Ma
1	3.952	3.938	0.014	3919000	118.5	114.3	M
2	4.126	4.145	-0.019	2605199	118.5	120.6	M
						RPD = 5.37	
7 Butane							
1	4.232	4.233	-0.001	34646755	264.5	262.7	
2	7.363	7.368	-0.005	15940645	264.5	250.0	
						RPD = 4.95	
8 isobutylene							
1	5.141	5.133	0.008	22154896	255.4	248.2	
2	7.216	7.222	-0.006	14046007	255.4	338.0	
						RPD = 30.64	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

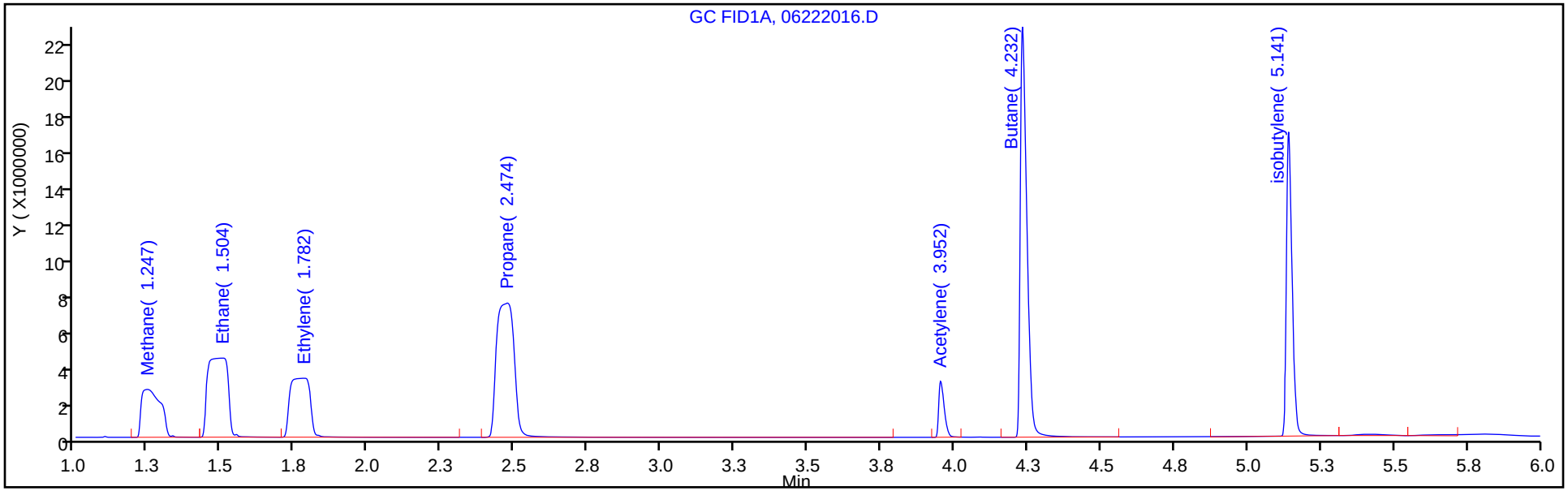
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:11 Chrom Revision: 2.3 21-Jun-2020 18:30:46

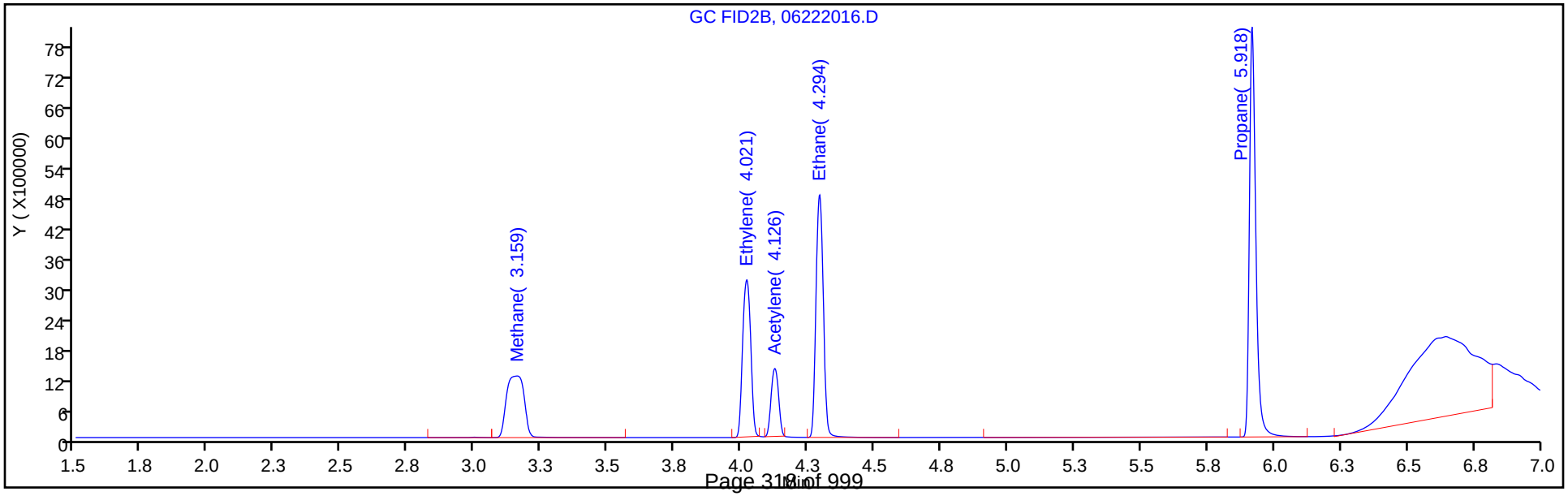
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D				
Injection Date:	22-Jun-2020 15:22:17	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccv			Worklist Smp#:	16
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

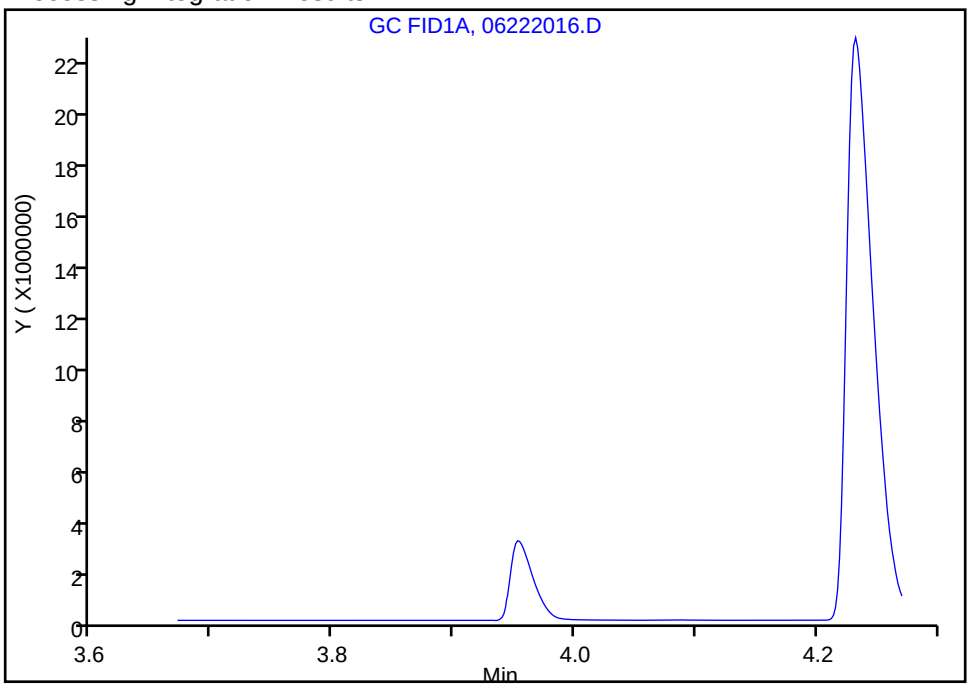
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D				
Injection Date:	22-Jun-2020 15:22:17	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

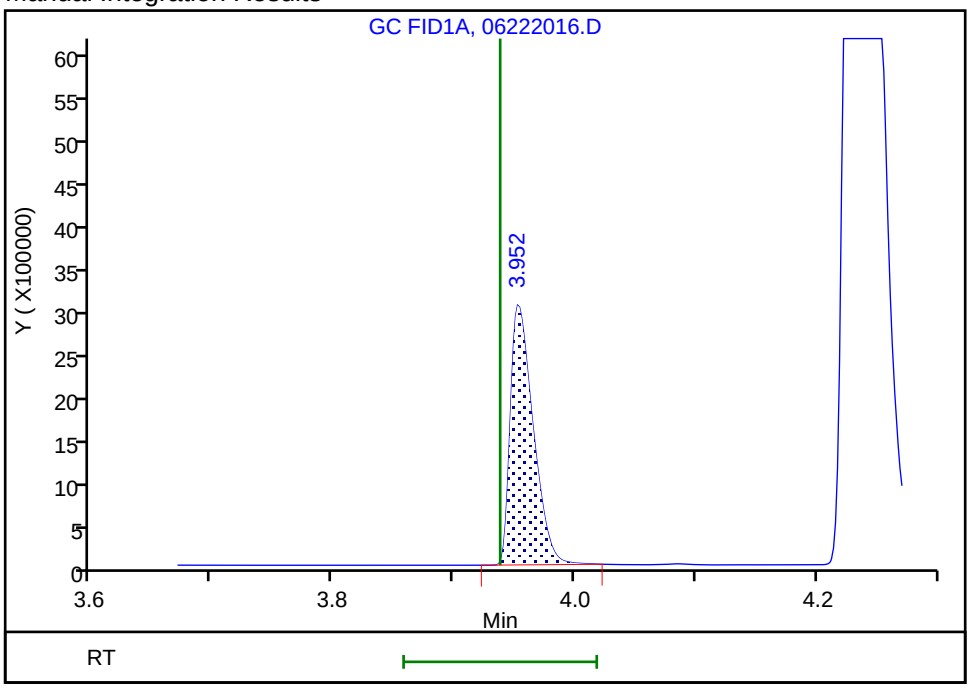
Processing Integration Results

RT: 3.94
Area: 0
Amount: 120.5804
Amount Units: ug/l



Manual Integration Results

RT: 3.95
Area: 3919000
Amount: 114.2757
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:33:59

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/16 Calibration Date: 06/22/2020 15:22

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222016.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		76355		81.2	73.0	11.2	20.0
Ethylene	Ave	47934	51176		136	128	6.8	20.0
Acetylene	Ave	21605	21981		121	119	1.7	20.0
Ethane	Ave	61056	66906		150	137	9.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/16 Calibration Date: 06/22/2020 15:22

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222016.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.16	3.15	3.23
Ethylene	4.02	3.99	4.09
Acetylene	4.13	4.07	4.23
Ethane	4.29	4.26	4.36

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2020 15:22:17 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: 280-0092637-016
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:11 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 24-Jun-2020 10:34:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.247	1.258	-0.011	11650047	73.0	80.7	
2	3.159	3.193	-0.034	5574179	73.0	81.2	
						RPD = 0.58	
3 Ethane							
1	1.504	1.516	-0.012	20359036	136.9	149.7	
2	4.294	4.312	-0.018	9156411	136.9	150.0	
						RPD = 0.21	
4 Ethylene							M
1	1.782	1.786	-0.004	14940639	127.7	135.6	
2	4.021	4.042	-0.021	6533523	127.7	136.3	M
						RPD = 0.55	
5 Propane							
1	2.474	2.483	-0.009	30293224	200.7	211.5	
2	5.918	5.927	-0.009	13511868	200.7	215.7	
						RPD = 2.00	
6 Acetylene							Ma
1	3.952	3.938	0.014	3919000	118.5	114.3	M
2	4.126	4.145	-0.019	2605199	118.5	120.6	M
						RPD = 5.37	
7 Butane							
1	4.232	4.233	-0.001	34646755	264.5	262.7	
2	7.363	7.368	-0.005	15940645	264.5	250.0	
						RPD = 4.95	
8 isobutylene							
1	5.141	5.133	0.008	22154896	255.4	248.2	
2	7.216	7.222	-0.006	14046007	255.4	338.0	
						RPD = 30.64	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

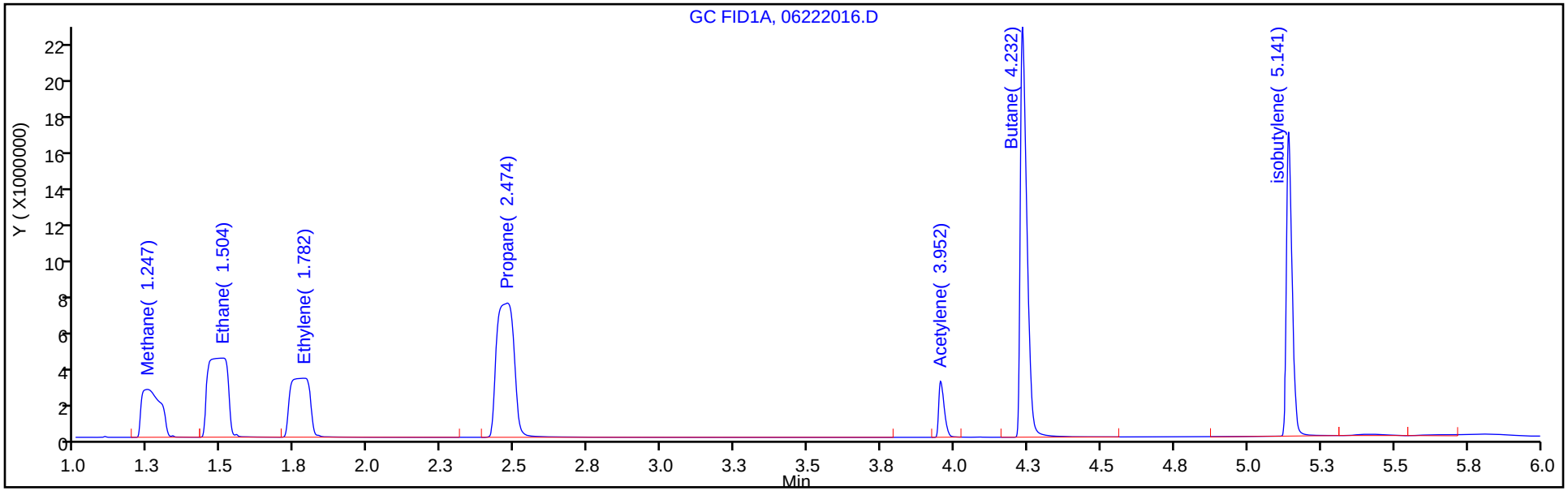
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:11 Chrom Revision: 2.3 21-Jun-2020 18:30:46

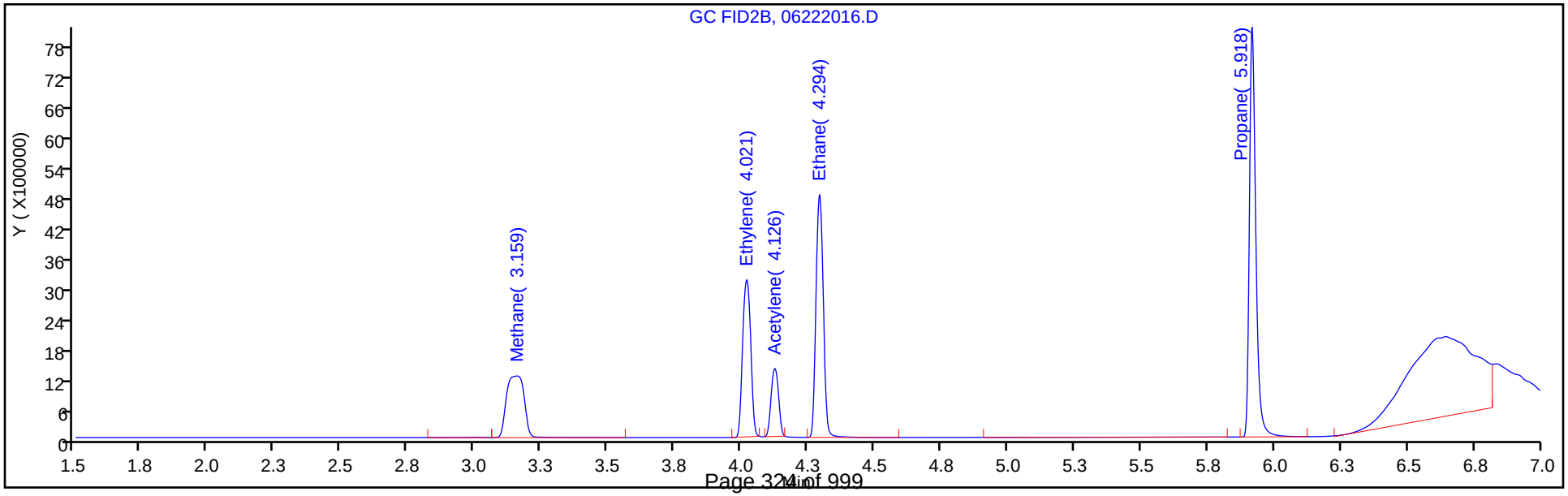
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D				
Injection Date:	22-Jun-2020 15:22:17	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccv			Worklist Smp#:	16
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

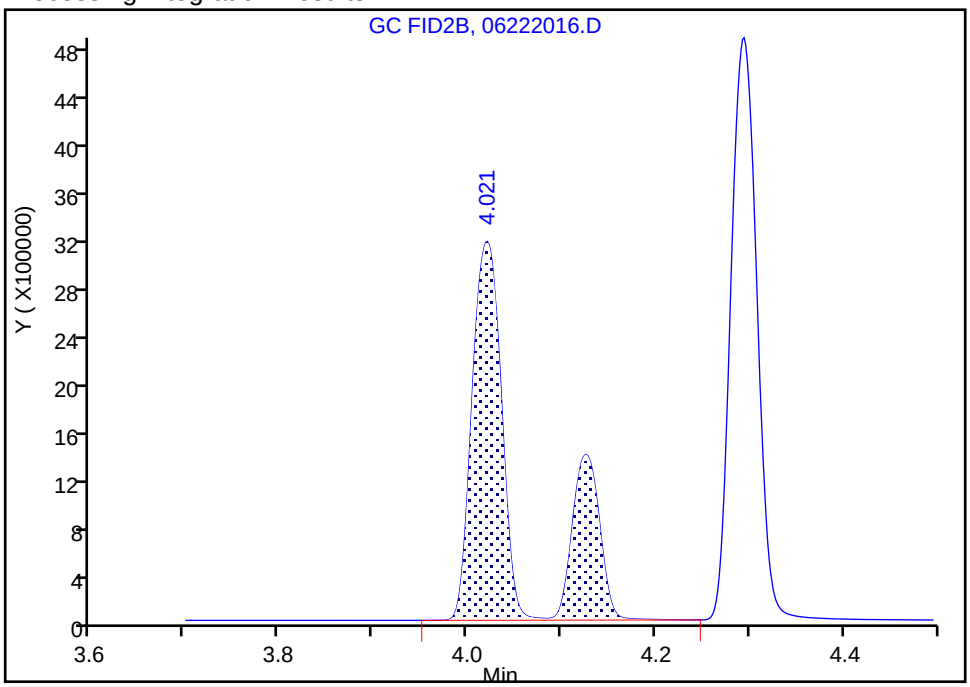
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D				
Injection Date:	22-Jun-2020 15:22:17	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

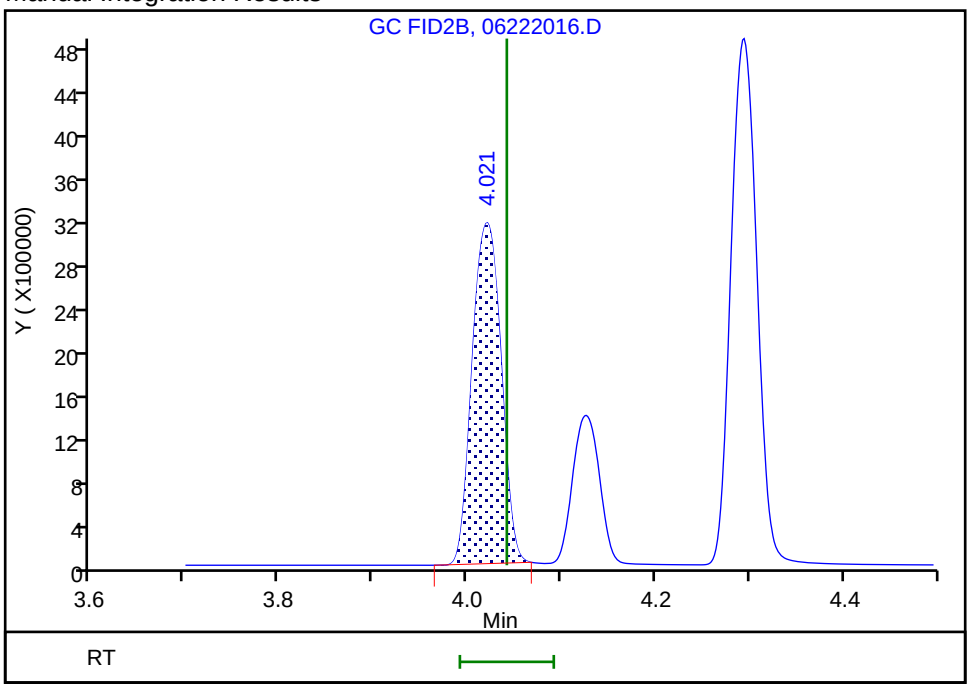
Processing Integration Results

RT: 4.02
Area: 9358378
Amount: 195.2359
Amount Units: ug/l



Manual Integration Results

RT: 4.02
Area: 6533523
Amount: 136.3033
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:33:35

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

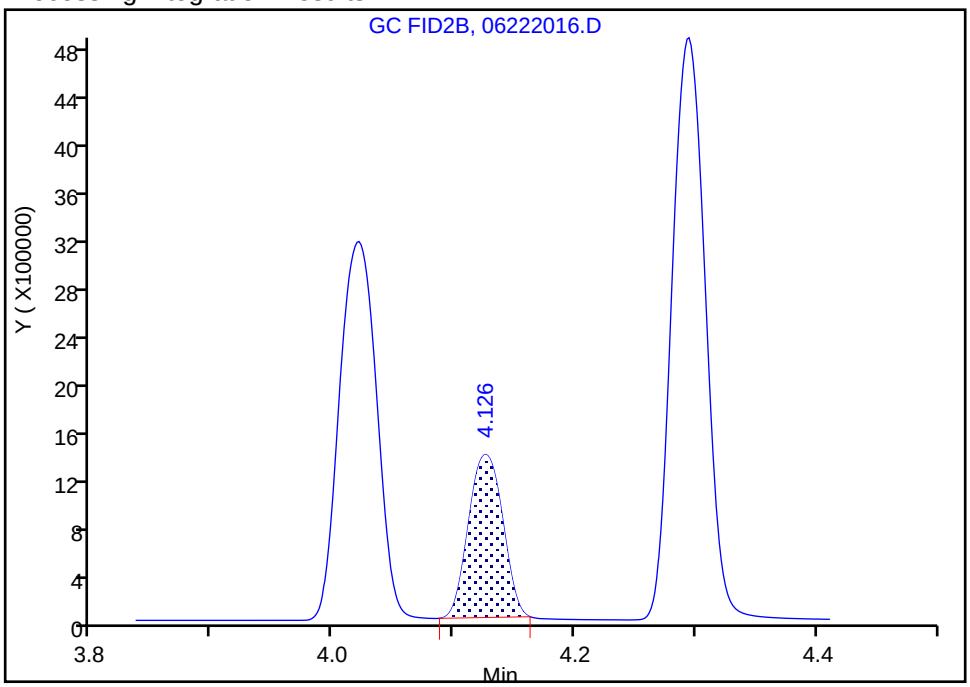
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222016.D				
Injection Date:	22-Jun-2020 15:22:17	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

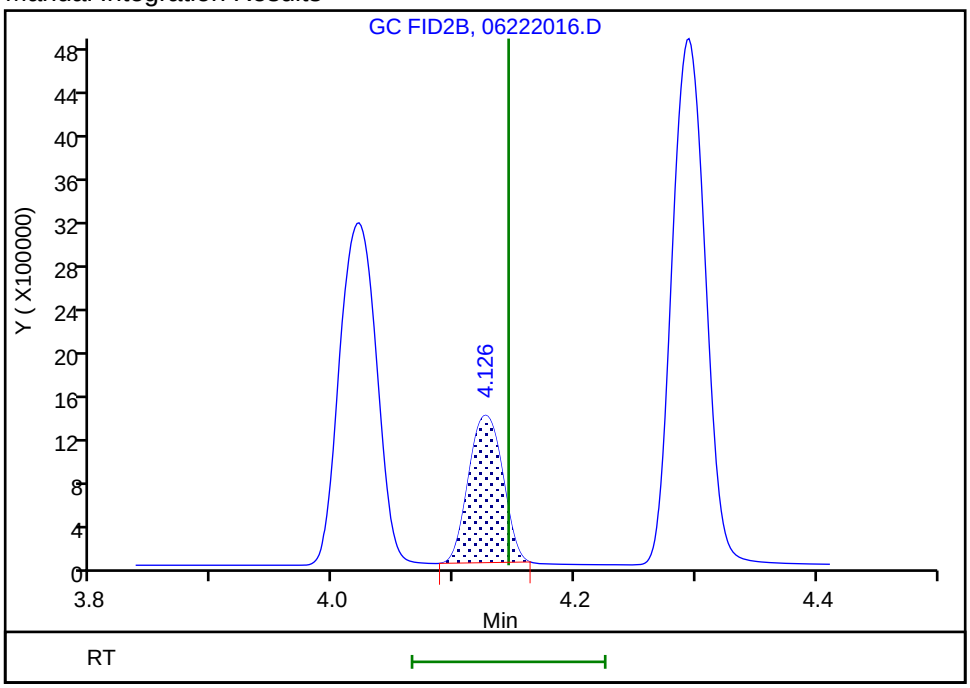
Processing Integration Results

RT: 4.13
Area: 2605199
Amount: 120.5804
Amount Units: ug/l



Manual Integration Results

RT: 4.13
Area: 2605199
Amount: 120.5804
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:33:53

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/30 Calibration Date: 06/22/2020 19:11

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222030.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		153758		77.8	73.0	6.5	20.0
Ethane	Ave	136043	143321		144	137	5.3	20.0
Ethylene	Ave	110213	113172		131	128	2.7	20.0
Acetylene	Ave	34294	31596		109	119	-7.9	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/30 Calibration Date: 06/22/2020 19:11

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222030.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.22	1.30
Ethane	1.51	1.47	1.57
Ethylene	1.79	1.74	1.84
Acetylene	3.96	3.86	4.02

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2020 19:11:28 ALS Bottle#: 30 Worklist Smp#: 30
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: 280-0092637-030
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:17 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 24-Jun-2020 10:52:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.258	-0.009	11224820	73.0	77.8	
2	3.166	3.193	-0.027	5379235	73.0	78.3	
						RPD = 0.74	
3 Ethane							
1	1.507	1.516	-0.009	19614237	136.9	144.2	
2	4.297	4.312	-0.015	8826963	136.9	144.6	
						RPD = 0.27	
4 Ethylene							M
1	1.785	1.786	-0.001	14448294	127.7	131.1	
2	4.026	4.042	-0.016	6279931	127.7	131.0	M
						RPD = 0.06	
5 Propane							
1	2.484	2.483	0.001	29096332	200.7	203.1	
2	5.922	5.927	-0.005	13219447	200.7	211.1	
						RPD = 3.84	
6 Acetylene							Ma
1	3.960	3.938	0.022	3744827	118.5	109.2	M
2	4.131	4.145	-0.014	2508196	118.5	116.1	M
						RPD = 6.12	
7 Butane							
1	4.239	4.233	0.006	32962987	264.5	249.9	
2	7.366	7.368	-0.002	16083452	264.5	252.2	
						RPD = 0.92	
8 isobutylene							
1	5.145	5.133	0.012	21195257	255.4	237.4	
2	7.217	7.222	-0.005	9933335	255.4	239.0	
						RPD = 0.67	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

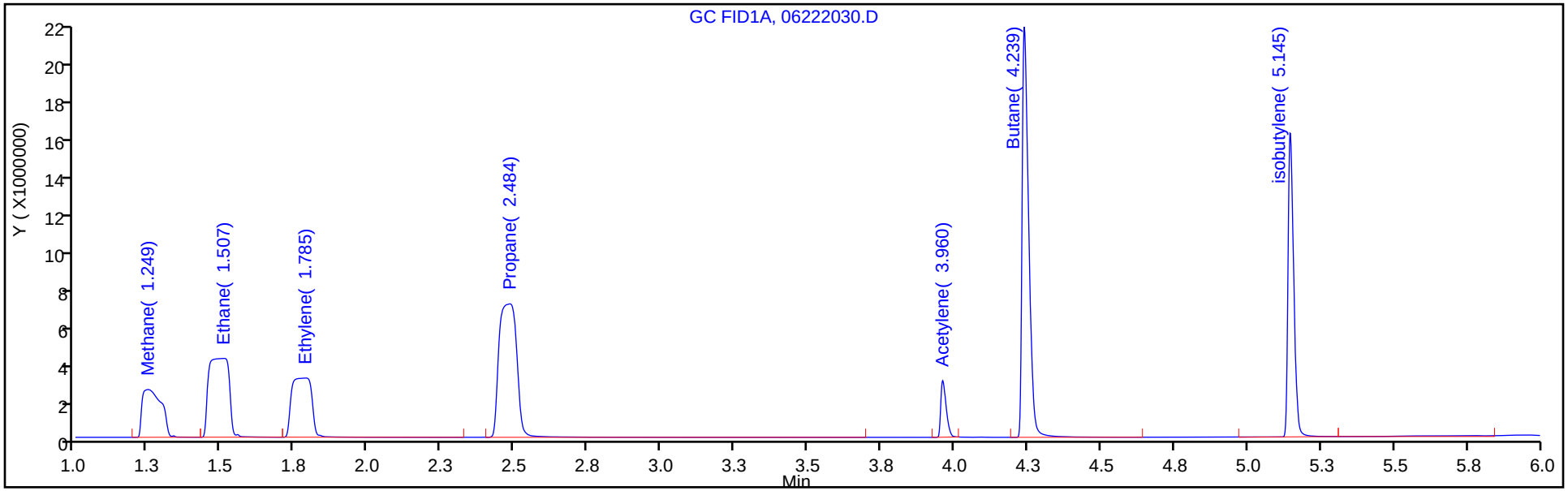
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

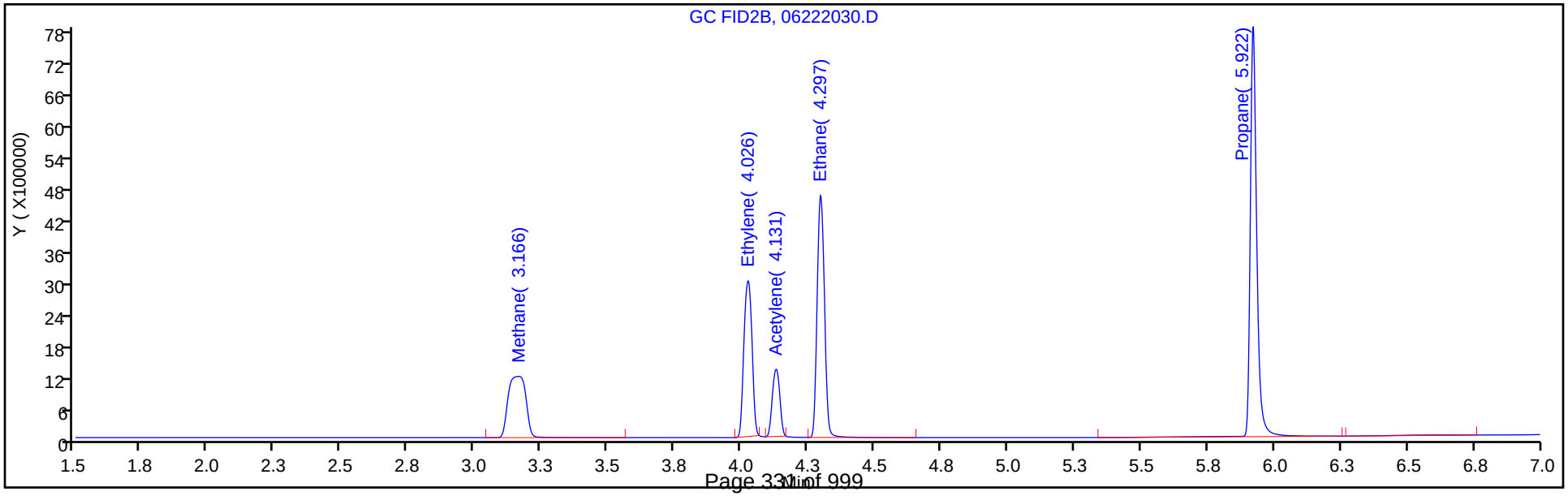
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D				
Injection Date:	22-Jun-2020 19:11:28	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccv			Worklist Smp#:	30
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

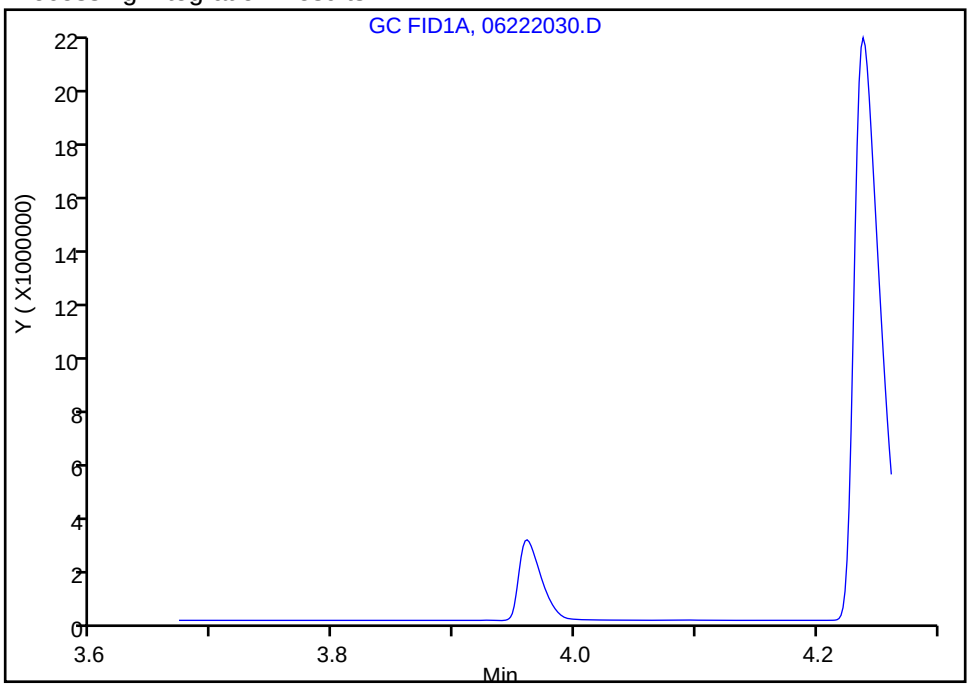
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D				
Injection Date:	22-Jun-2020 19:11:28	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	30	Worklist Smp#:	30
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

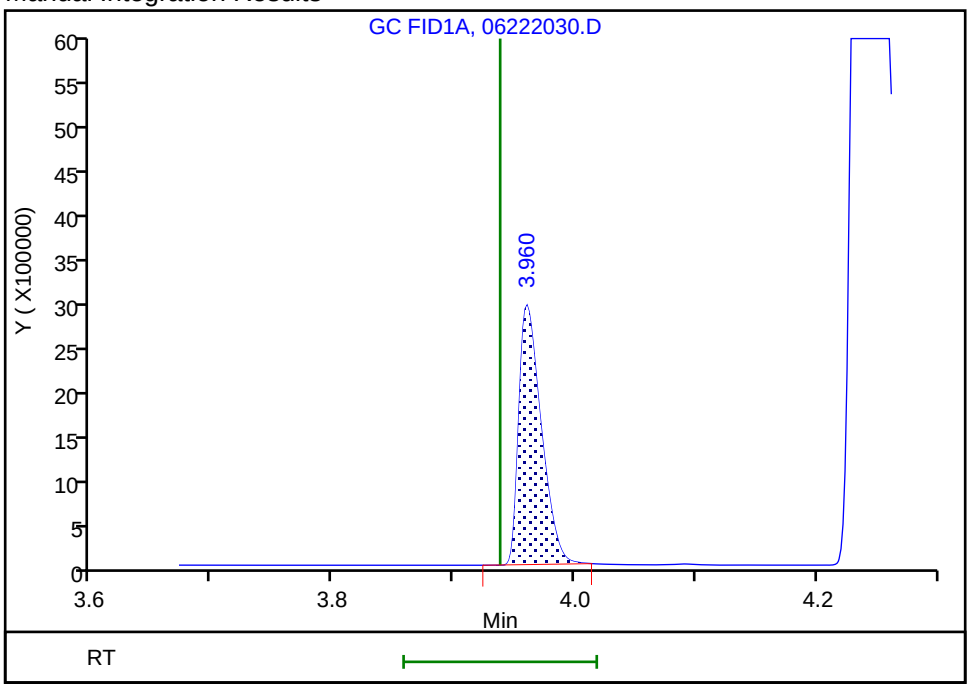
Processing Integration Results

RT: 3.94
Area: 0
Amount: 116.0907
Amount Units: ug/l



Manual Integration Results

RT: 3.96
Area: 3744827
Amount: 109.1969
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:53:48

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/30 Calibration Date: 06/22/2020 19:11

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222030.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		73685		78.3	73.0	7.3	20.0
Ethylene	Ave	47934	49190		131	128	2.6	20.0
Acetylene	Ave	21605	21162		116	119	-2.1	20.0
Ethane	Ave	61056	64498		145	137	5.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-499633/30 Calibration Date: 06/22/2020 19:11

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 06222030.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.17	3.15	3.23
Ethylene	4.03	3.99	4.09
Acetylene	4.13	4.07	4.23
Ethane	4.30	4.26	4.36

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2020 19:11:28 ALS Bottle#: 30 Worklist Smp#: 30
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: 280-0092637-030
Operator ID: gm Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:17 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 24-Jun-2020 10:52:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.258	-0.009	11224820	73.0	77.8	
2	3.166	3.193	-0.027	5379235	73.0	78.3	
						RPD = 0.74	
3 Ethane							
1	1.507	1.516	-0.009	19614237	136.9	144.2	
2	4.297	4.312	-0.015	8826963	136.9	144.6	
						RPD = 0.27	
4 Ethylene							M
1	1.785	1.786	-0.001	14448294	127.7	131.1	
2	4.026	4.042	-0.016	6279931	127.7	131.0	M
						RPD = 0.06	
5 Propane							
1	2.484	2.483	0.001	29096332	200.7	203.1	
2	5.922	5.927	-0.005	13219447	200.7	211.1	
						RPD = 3.84	
6 Acetylene							Ma
1	3.960	3.938	0.022	3744827	118.5	109.2	M
2	4.131	4.145	-0.014	2508196	118.5	116.1	M
						RPD = 6.12	
7 Butane							
1	4.239	4.233	0.006	32962987	264.5	249.9	
2	7.366	7.368	-0.002	16083452	264.5	252.2	
						RPD = 0.92	
8 isobutylene							
1	5.145	5.133	0.012	21195257	255.4	237.4	
2	7.217	7.222	-0.005	9933335	255.4	239.0	
						RPD = 0.67	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

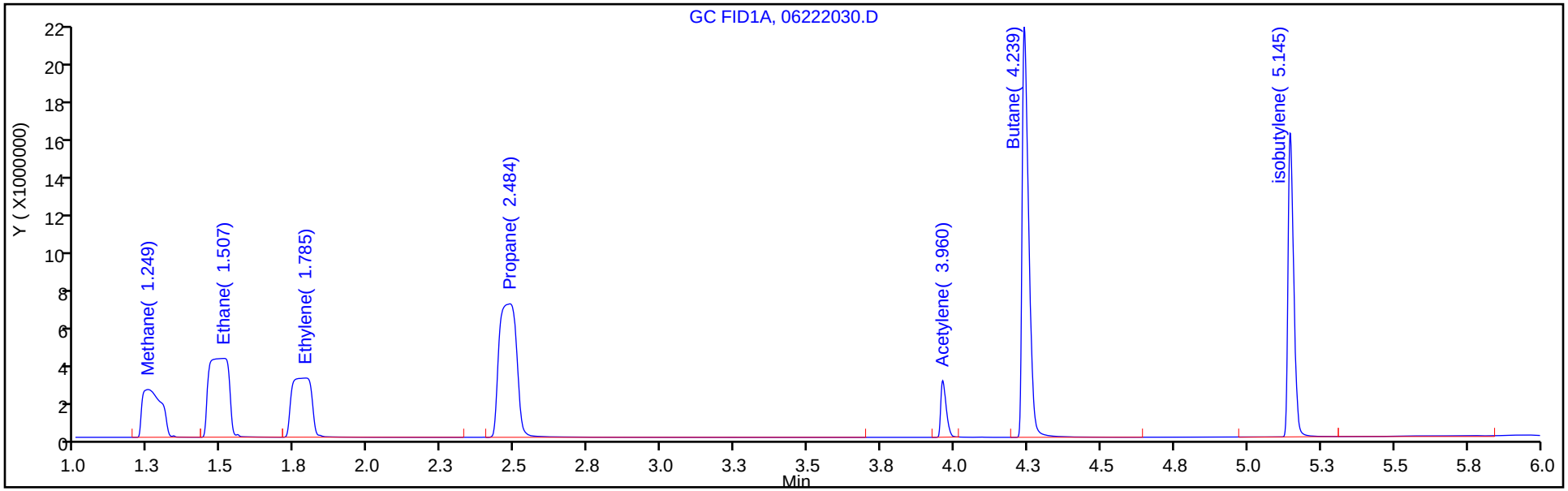
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

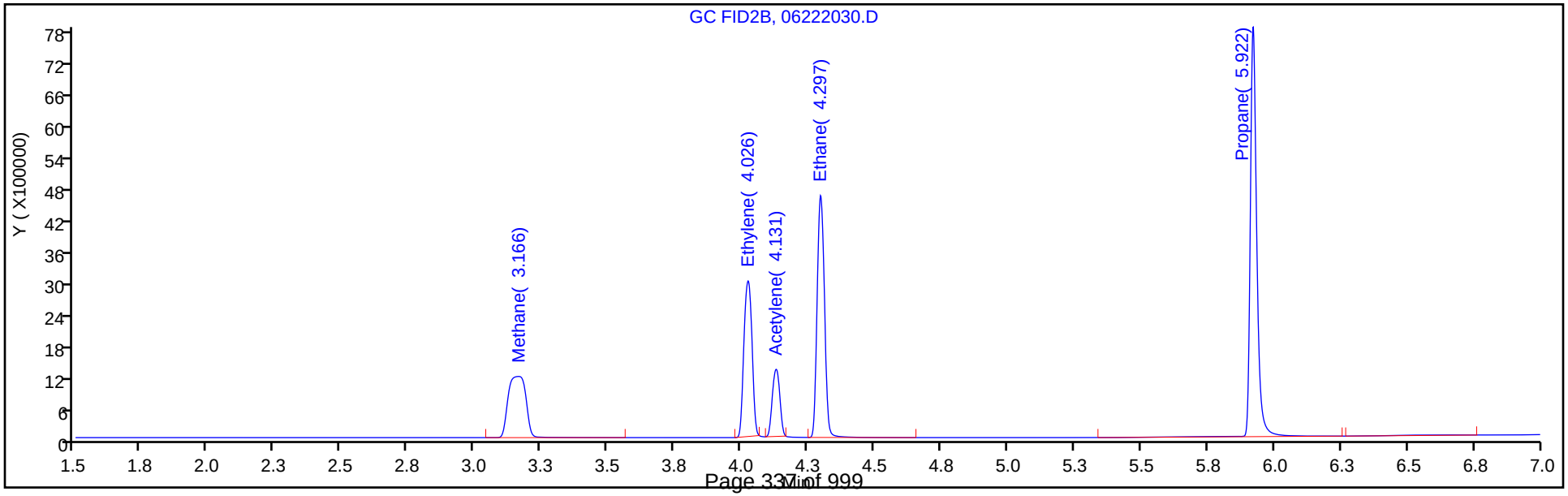
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D				
Injection Date:	22-Jun-2020 19:11:28	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	ccv			Worklist Smp#:	30
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

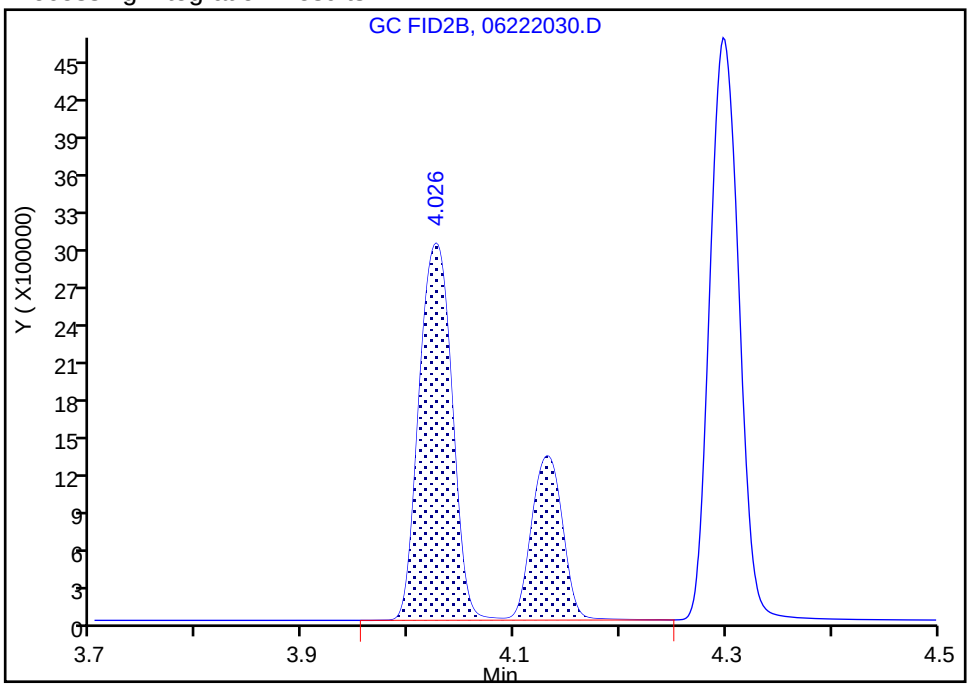
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D				
Injection Date:	22-Jun-2020 19:11:28	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	30	Worklist Smp#:	30
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

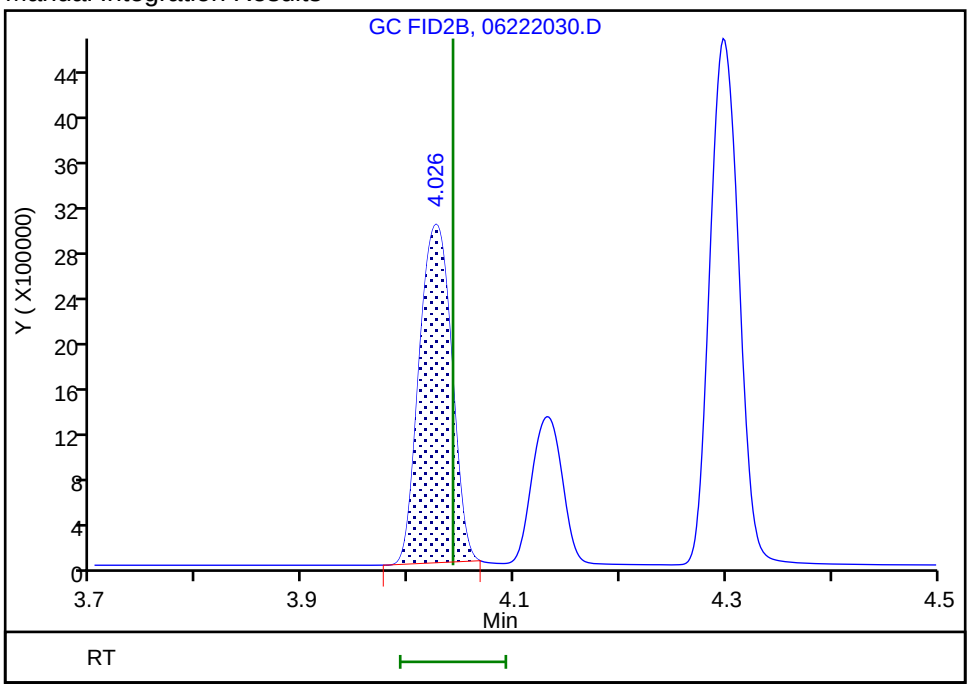
Processing Integration Results

RT: 4.03
Area: 9039972
Amount: 188.5932
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6279931
Amount: 131.0129
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:53:29

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

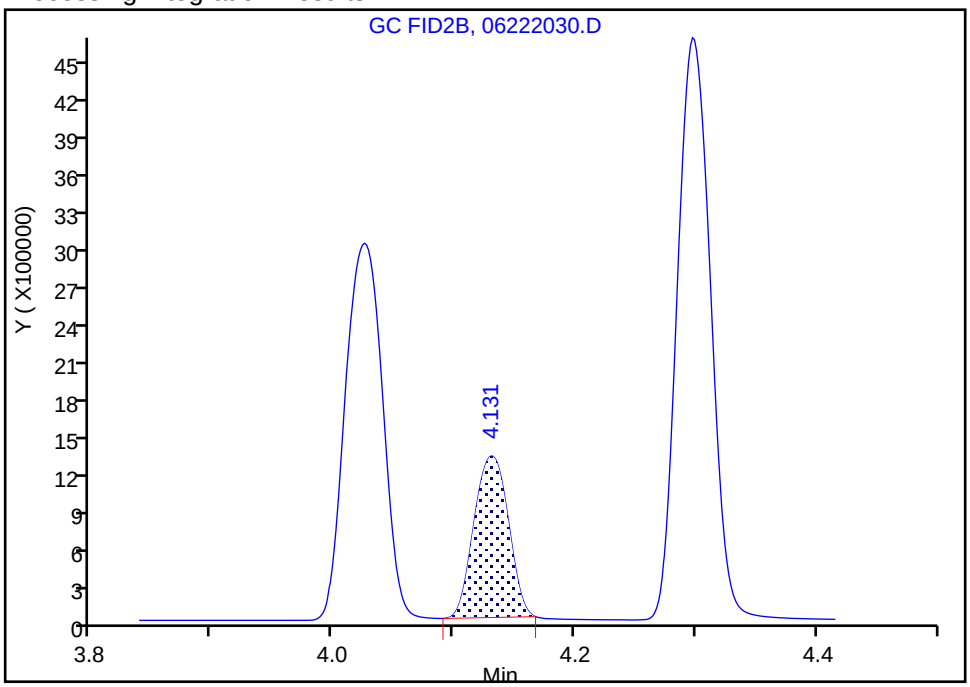
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222030.D				
Injection Date:	22-Jun-2020 19:11:28	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	gm	ALS Bottle#:	30	Worklist Smp#:	30
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

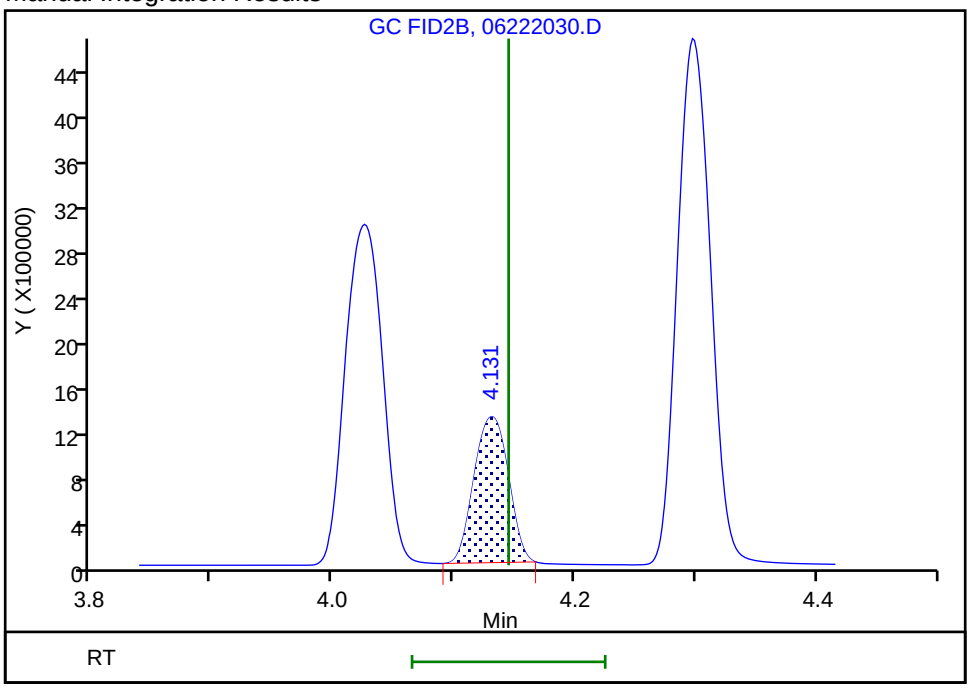
Processing Integration Results

RT: 4.13
Area: 2508196
Amount: 116.0907
Amount Units: ug/l



Manual Integration Results

RT: 4.13
Area: 2508196
Amount: 116.0907
Amount Units: ug/l



Reviewer: meierg, 24-Jun-2020 10:53:44

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-499633/4

Matrix: Water Lab File ID: 06222004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 18(mL) Date Analyzed: 06/22/2020 11:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 499633 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222004.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 22-Jun-2020 11:56:48 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 280-0092637-004
Operator ID: gm Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:04 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 22-Jun-2020 12:07:23

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.098				ND	
2		5.458					
2 Methane							
1		1.258			73.0	ND	
2		3.193					
3 Ethane							
1		1.516			ND	ND	
2		4.312					
4 Ethylene							
1		1.786			ND	ND	
2		4.042					
5 Propane							
1		2.483			ND	ND	
2		5.927					
6 Acetylene							
1		3.938			ND	ND	
2		4.145					
7 Butane							
1		4.233			ND	ND	
2		7.368					
8 isobutylene							
1		5.133			ND	ND	
2		7.222					

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

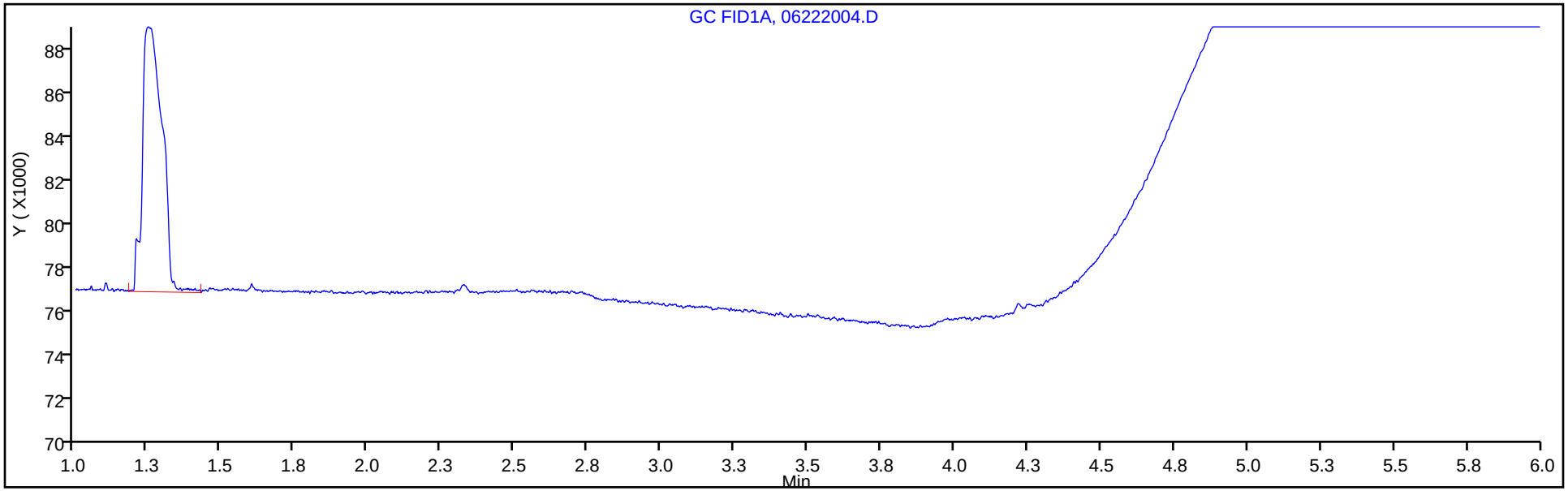
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

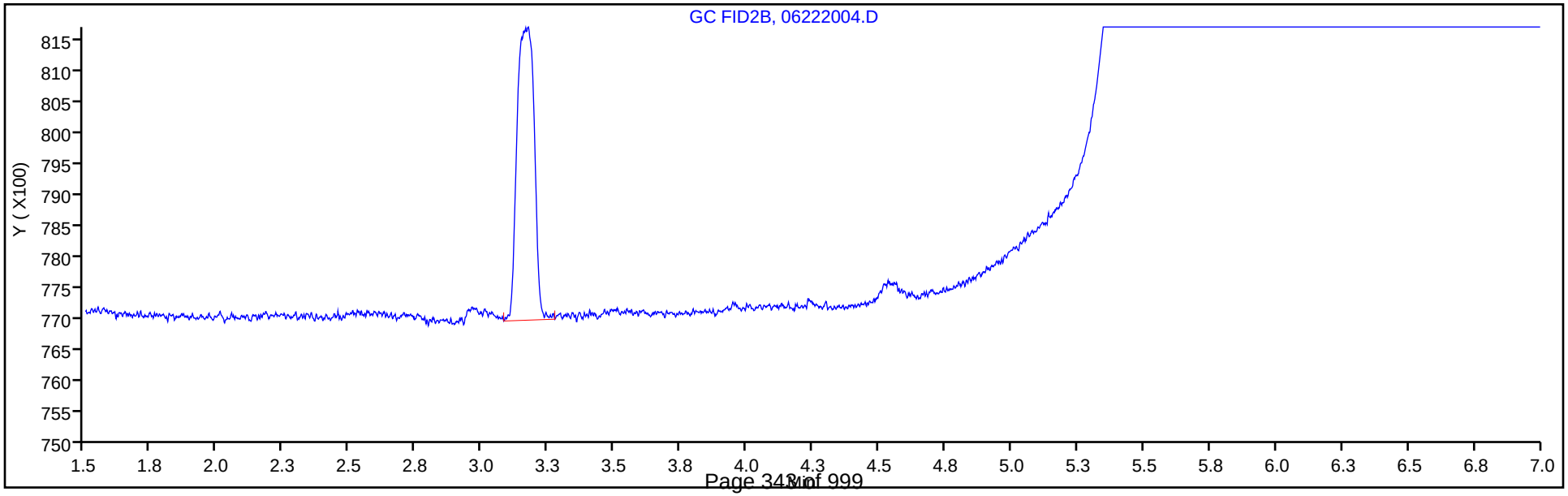
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222004.D				
Injection Date:	22-Jun-2020 11:56:48	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-499633/2
Matrix: Water
Lab File ID: 06222003.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 06/22/2020 11:40
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: HP-Plot Q ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 499633
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0797		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222003.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-Jun-2020 11:40:25 ALS Bottle#: 3 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 280-0092637-002
Operator ID: gm Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 24-Jun-2020 11:48:26 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1017

First Level Reviewer: meierg Date: 22-Jun-2020 12:09:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.252	1.258	-0.006	11410739	73.0	79.0	
2	3.169	3.193	-0.024	5471551	73.0	79.7	
						RPD = 0.80	
3 Ethane							
1	1.508	1.516	-0.008	20320680	136.9	149.4	
2	4.300	4.312	-0.012	9147906	136.9	149.8	
						RPD = 0.31	
4 Ethylene							
1	1.788	1.786	0.002	15146945	127.7	137.4	
2	4.027	4.042	-0.015	6678018	127.7	139.3	
						RPD = 1.36	
5 Propane							
1	2.480	2.483	-0.003	30297655	200.7	211.5	
2	5.920	5.927	-0.007	13998120	200.7	223.5	
						RPD = 5.52	
6 Acetylene							M
1	3.952	3.938	0.014	3994443	118.5	116.5	
2	4.134	4.145	-0.011	2629168	118.5	121.7	M
						RPD = 4.38	
7 Butane							
1	4.232	4.233	-0.001	34993186	264.5	265.3	
2	7.364	7.368	-0.004	15439275	264.5	242.1	
						RPD = 9.13	
8 isobutylene							M
1	5.138	5.133	0.005	23332676	255.4	261.4	
2	7.217	7.222	-0.005	10827205	255.4	260.5	M
						RPD = 0.33	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

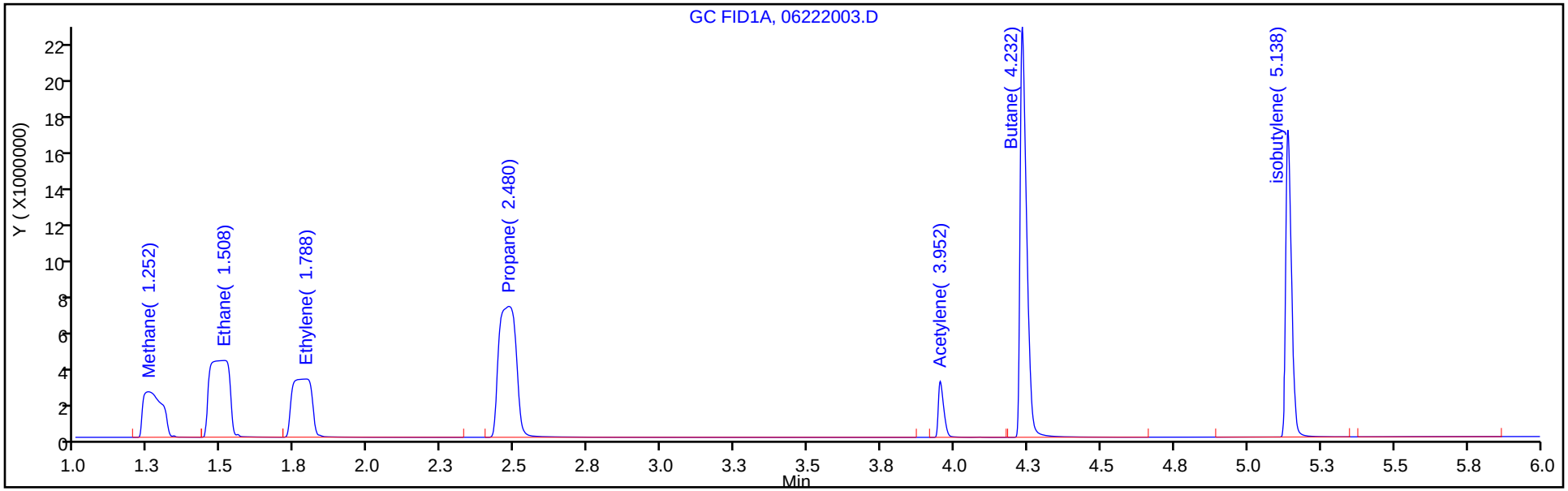
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 24-Jun-2020 11:48:27 Chrom Revision: 2.3 21-Jun-2020 18:30:46

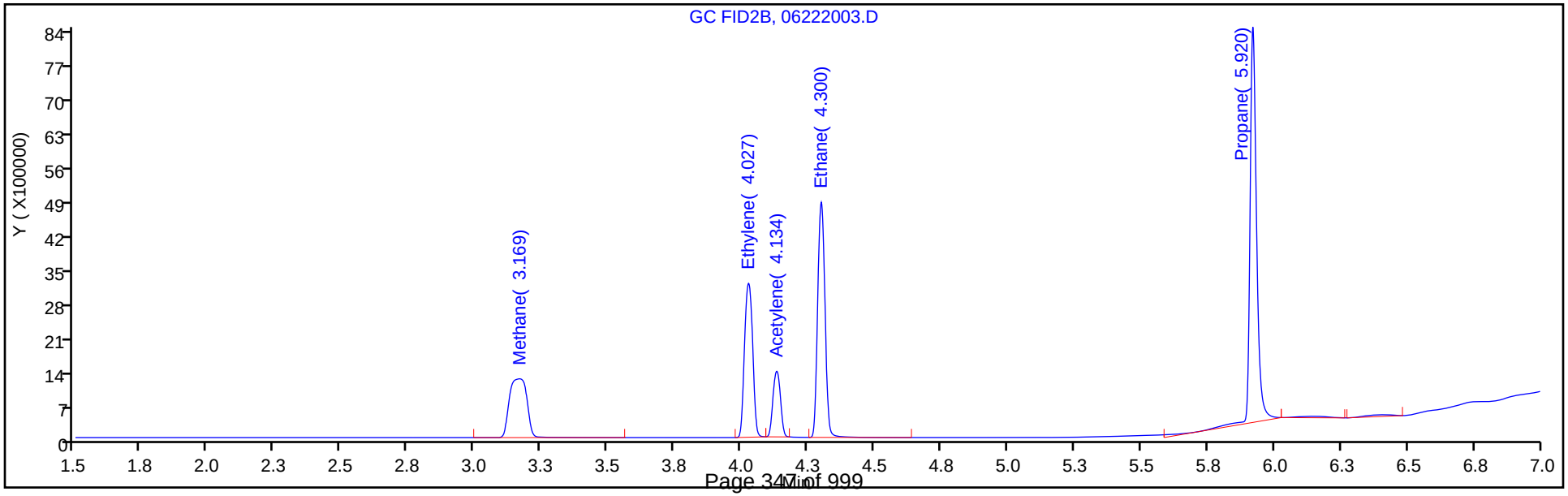
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200622-92637.b\06222003.D				
Injection Date:	22-Jun-2020 11:40:25	Instrument ID:	VGC_J	Operator ID:	gm
Lims ID:	lcs			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/16/2020 10:57

Analysis Batch Number: 495152 End Date: 05/16/2020 13:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-495152/6		05/16/2020 10:57	1	001F0101.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/6		05/16/2020 10:57	1	001F0101.D	HP-Plot Q 0.53(mm)
IC 280-495152/7		05/16/2020 11:13	1	001F0201.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/7		05/16/2020 11:13	1	001F0201.D	HP-Plot Q 0.53(mm)
IC 280-495152/8		05/16/2020 11:30	1	002F0301.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/8		05/16/2020 11:30	1	002F0301.D	HP-Plot Q 0.53(mm)
IC 280-495152/9		05/16/2020 11:46	1	003F0401.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/9		05/16/2020 11:46	1	003F0401.D	HP-Plot Q 0.53(mm)
ICRT 280-495152/10		05/16/2020 12:02	1	004F0501.D	Rt-Alumina KCl 0.53(mm)
ICRT 280-495152/10		05/16/2020 12:02	1	004F0501.D	HP-Plot Q 0.53(mm)
IC 280-495152/11		05/16/2020 12:19	1	005F0601.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/11		05/16/2020 12:19	1	005F0601.D	HP-Plot Q 0.53(mm)
IC 280-495152/12		05/16/2020 12:35	1	006F0701.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/12		05/16/2020 12:35	1	006F0701.D	HP-Plot Q 0.53(mm)
IC 280-495152/13		05/16/2020 12:52	1	007F0801.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/13		05/16/2020 12:52	1	007F0801.D	HP-Plot Q 0.53(mm)
IC 280-495152/14		05/16/2020 13:08	1	009F0901.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/14		05/16/2020 13:08	1	009F0901.D	HP-Plot Q 0.53(mm)
ICV 280-495152/16		05/16/2020 13:25	1	010F1001.D	Rt-Alumina KCl 0.53(mm)
ICV 280-495152/16		05/16/2020 13:25	1	010F1001.D	HP-Plot Q 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Start Date: 06/22/2020 11:07

Analysis Batch Number: 499633 End Date: 06/22/2020 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 280-499633/1		06/22/2020 11:07	1	06222001.D	Rt-Alumina KCl 0.53(mm)
CCVRT 280-499633/1		06/22/2020 11:07	1	06222001.D	HP-Plot Q 0.53(mm)
LCS 280-499633/2		06/22/2020 11:40	1	06222003.D	Rt-Alumina KCl 0.53(mm)
LCS 280-499633/2		06/22/2020 11:40	1	06222003.D	HP-Plot Q 0.53(mm)
MB 280-499633/4		06/22/2020 11:56	1	06222004.D	Rt-Alumina KCl 0.53(mm)
MB 280-499633/4		06/22/2020 11:56	1	06222004.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 12:21	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 12:21	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 12:38	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 12:38	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 12:54	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 12:54	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 13:10	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 13:10	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 13:27	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 13:27	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 13:43	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 13:43	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 14:00	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 14:00	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 14:16	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 14:16	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 14:32	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 14:32	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 14:49	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 14:49	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 15:05	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 15:05	1		HP-Plot Q 0.53(mm)
CCV 280-499633/16		06/22/2020 15:22	1	06222016.D	Rt-Alumina KCl 0.53(mm)
CCV 280-499633/16		06/22/2020 15:22	1	06222016.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 15:38	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 15:38	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 15:55	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 15:55	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 16:11	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 16:11	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 16:27	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 16:27	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 16:44	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 16:44	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 17:00	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 17:00	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 17:17	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 17:17	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 17:33	3		Rt-Alumina KCl 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: VGC_J Start Date: 06/22/2020 11:07

Analysis Batch Number: 499633 End Date: 06/22/2020 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/22/2020 17:33	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 17:49	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 17:49	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 18:06	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 18:06	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 18:22	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 18:22	1		HP-Plot Q 0.53(mm)
280-137848-1		06/22/2020 18:38	1	06222028.D	Rt-Alumina KCl 0.53(mm)
280-137848-1		06/22/2020 18:38	1	06222028.D	HP-Plot Q 0.53(mm)
280-137848-2		06/22/2020 18:55	1	06222029.D	Rt-Alumina KCl 0.53(mm)
280-137848-2		06/22/2020 18:55	1	06222029.D	HP-Plot Q 0.53(mm)
CCV 280-499633/30		06/22/2020 19:11	1	06222030.D	Rt-Alumina KCl 0.53(mm)
CCV 280-499633/30		06/22/2020 19:11	1	06222030.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 19:27	6		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 19:27	6		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 19:44	6		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 19:44	6		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 20:00	6		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 20:00	6		HP-Plot Q 0.53(mm)
ZZZZZ		06/22/2020 20:16	6		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/22/2020 20:16	6		HP-Plot Q 0.53(mm)
CCV 280-499633/35		06/22/2020 20:33	1		Rt-Alumina KCl 0.53(mm)
CCV 280-499633/35		06/22/2020 20:33	1		HP-Plot Q 0.53(mm)

RSK-175

GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499633 Batch Start Date: 06/22/20 11:07 Batch Analyst: Meier, Greg P

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	RSK7gasMathes 00031		
CCVRT 280-499633/1		RSK-175		18 mL	18 mL	5 SU	200 uL		
LCS 280-499633/2		RSK-175		18 mL	18 mL	5 SU	200 uL		
MB 280-499633/4		RSK-175		18 mL	18 mL	5 SU			
CCV 280-499633/16		RSK-175		18 mL	18 mL	5 SU	200 uL		
280-137848-H-1	PZ018-20A	RSK-175	T	18 mL	18 mL	<2 SU			
280-137848-G-2	G0090-20A	RSK-175	T	18 mL	18 mL	<2 SU			
CCV 280-499633/30		RSK-175		18 mL	18 mL	5 SU	200 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8330A_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Luna-phenyl ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
PZ018-20A	280-137848-1		92
PZ018-20A	280-137848-1	101 M	
G0090-20A	280-137848-2		93 M
G0090-20A	280-137848-2	96 M	
	MB 280-499740/1-A	105	
	LCS 280-499740/2-A	101	
	LCS 280-499740/4-A	105	
	LCSD 280-499740/3-A	98	
	LCSD 280-499740/5-A	104 M	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 07010044.D

Lab ID: LCS 280-499740/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.42	121	73-125	
1,3-Dinitrobenzene	2.00	2.27	113	78-120	
2,4,6-Trinitrotoluene	2.00	2.35	118	71-123	
2,4-Dinitrotoluene	2.00	2.11	106	78-120	
2,6-Dinitrotoluene	2.00	2.22	111	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.01	100	79-120	
2-Nitrotoluene	2.00	1.84	92	70-127	
3-Nitrotoluene	2.00	2.06	103	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.85	93	76-125	
4-Nitrotoluene	2.00	1.92	96	71-127	
HMX	2.00	2.19	109	65-135	
Nitrobenzene	2.00	2.11	106	65-134	
RDX	2.00	2.13	107	68-130	
Tetryl	2.00	2.15	108	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 07010046.D

Lab ID: LCS 280-499740/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
MNX	2.33	2.08	89	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 07010045.D

Lab ID: LCSD 280-499740/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.46	123	2	30	73-125	
1,3-Dinitrobenzene	2.00	2.33	116	3	30	78-120	
2,4,6-Trinitrotoluene	2.00	2.42	121	3	30	71-123	M
2,4-Dinitrotoluene	2.00	2.19	109	3	30	78-120	M
2,6-Dinitrotoluene	2.00	2.21	111	0	30	77-127	M
2-Amino-4,6-dinitrotoluene	2.00	2.18	109	8	30	79-120	M
2-Nitrotoluene	2.00	2.36	118	25	30	70-127	M
3-Nitrotoluene	2.00	2.35	118	13	30	73-125	M
4-Amino-2,6-dinitrotoluene	2.00	1.95	97	5	30	76-125	M
4-Nitrotoluene	2.00	1.95	97	1	30	71-127	M
HMX	2.00	2.18	109	0	30	65-135	M
Nitrobenzene	2.00	2.24	112	6	30	65-134	
RDX	2.00	2.16	108	2	30	68-130	
Tetryl	2.00	2.21	110	3	30	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 07010047.D

Lab ID: LCSD 280-499740/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
MNX	2.33	2.18	93	5	30	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: MB 280-499740/1-A

Matrix: Water Date Extracted: 06/23/2020 10:47

Lab File ID:(1) 07010043.D Lab File ID:(2)

Date Analyzed:(1) 07/02/2020 07:03 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2)

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-499740/2-A	07/02/2020 07:26	
	LCSD 280-499740/3-A	07/02/2020 07:49	
	LCS 280-499740/4-A	07/02/2020 08:12	
	LCSD 280-499740/5-A	07/02/2020 08:35	
G0090-20A	280-137848-2	07/02/2020 23:07	
PZ018-20A	280-137848-1	07/02/2020 23:30	

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID: PZ018-20A
Lab Sample ID: 280-137848-1
Matrix: Water
Lab File ID: 07020024.D
Analysis Method: 8330A
Date Collected: 06/16/2020 15:15
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 461.2(mL)
Date Analyzed: 07/02/2020 23:30
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500997
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U M	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.28	M J1	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.093
99-08-1	3-Nitrotoluene	0.43	U M	0.43	0.43	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.17	M J1	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.43	U M	0.44	0.43	0.11
2691-41-0	HMX	0.89	M J1	0.23	0.22	0.095
5755-27-1	MNX	0.43	U	2.2	0.43	0.17
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.099
121-82-4	RDX	1.0	M	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101	M	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020024.D
Lims ID: 280-137848-A-1-A
Client ID: PZ018-20A
Sample Type: Client
Inject. Date: 02-Jul-2020 23:30:15 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137848-A-1-A
Misc. Info.: 280-0092988-024
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 03-Jul-2020 11:09:14 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1025

First Level Reviewer: zhangji Date: 03-Jul-2020 10:22:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1	6.704	6.706	-0.002	7050	0.0820	M
6 MNX	1		7.369			ND	
7 RDX	1	7.784	7.773	0.011	11078	0.0950	M
$ 9 1,2-Dinitrobenzene	1	8.750	8.733	0.017	28049	0.2029	M
10 1,3,5-Trinitrobenzene	1		8.906			ND	MUa
11 1,3-Dinitrobenzene	1		9.559			ND	
12 Nitrobenzene	1		9.933			ND	
14 Tetryl	1		10.246			ND	U
16 2,4,6-Trinitrotoluene	1		11.213			ND	
17 4-Amino-2,6-dinitrotoluene	1	11.417	11.379	0.038	1674	0.0159	M
18 2-Amino-4,6-dinitrotoluene	1	11.710	11.666	0.044	5187	0.0256	M
19 2,6-Dinitrotoluene	1		11.806			ND	
20 2,4-Dinitrotoluene	1		12.006			ND	
21 o-Nitrotoluene	1		12.826			ND	
22 p-Nitrotoluene	1		13.266			ND	U
23 m-Nitrotoluene	1	13.850	13.853	-0.003	113	0.000790	7M

QC Flag Legend

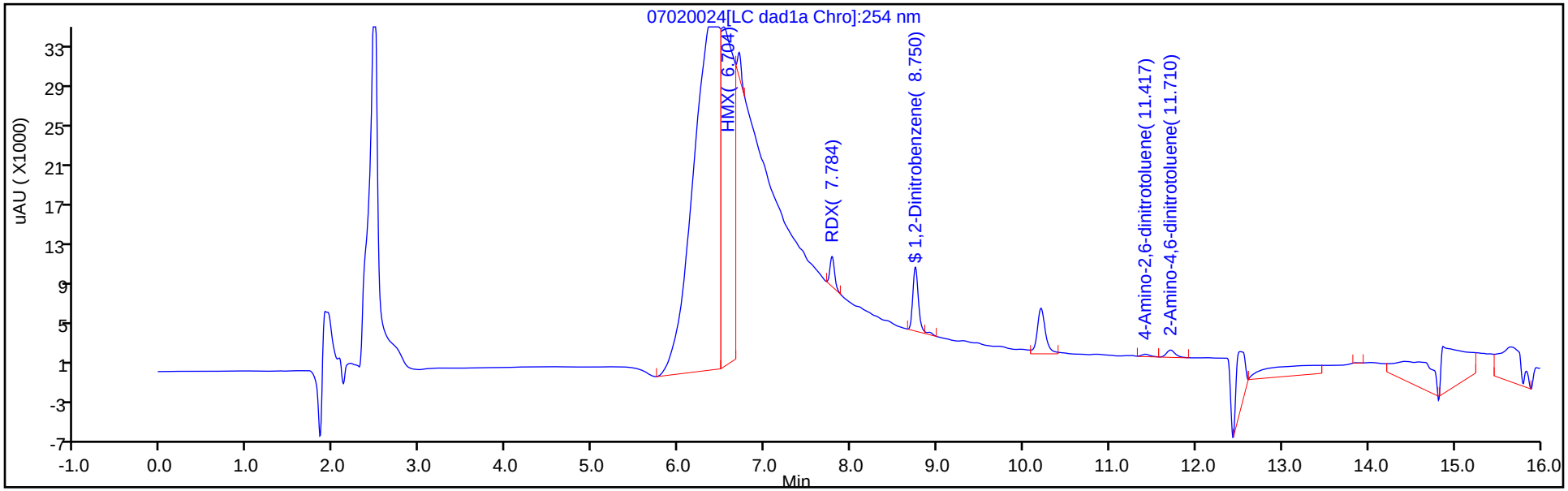
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected
a - User Assigned ID

Report Date: 03-Jul-2020 11:09:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

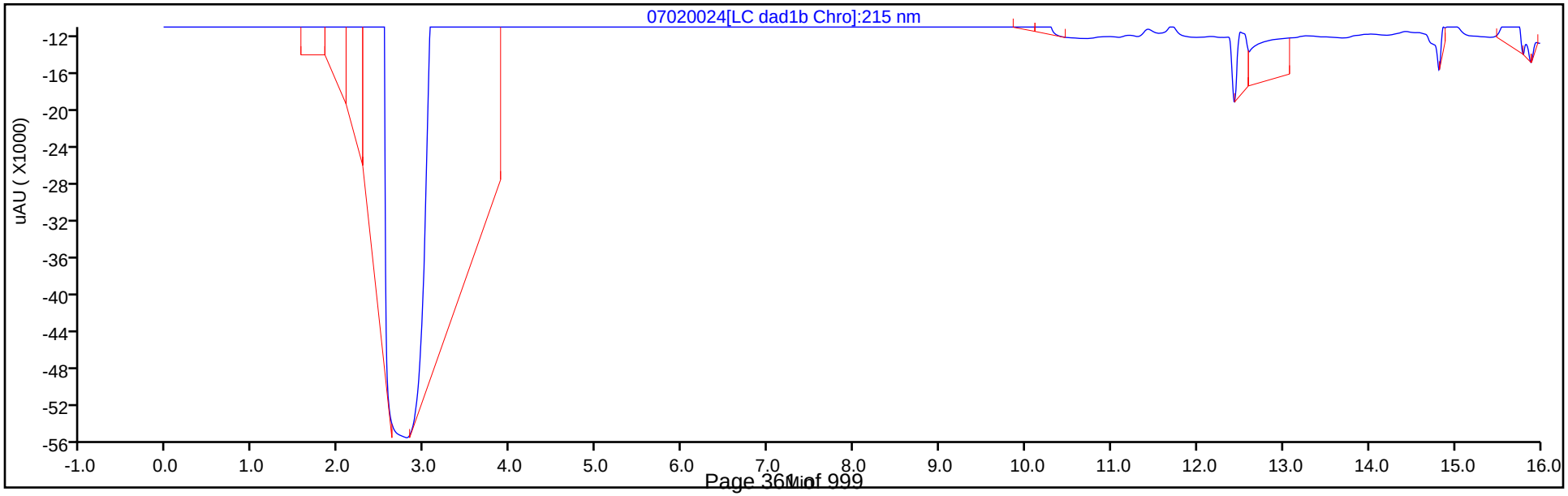
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1	Worklist Smp#:	24
Client ID:	PZ018-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020024.D				
Lims ID:	280-137848-A-1-A				
Client ID:	PZ018-20A				
Sample Type:	Client				
Inject. Date:	02-Jul-2020 23:30:15	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-1-A				
Misc. Info.:	280-0092988-024				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 11:09:14	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 10:22:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2029	101.47

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

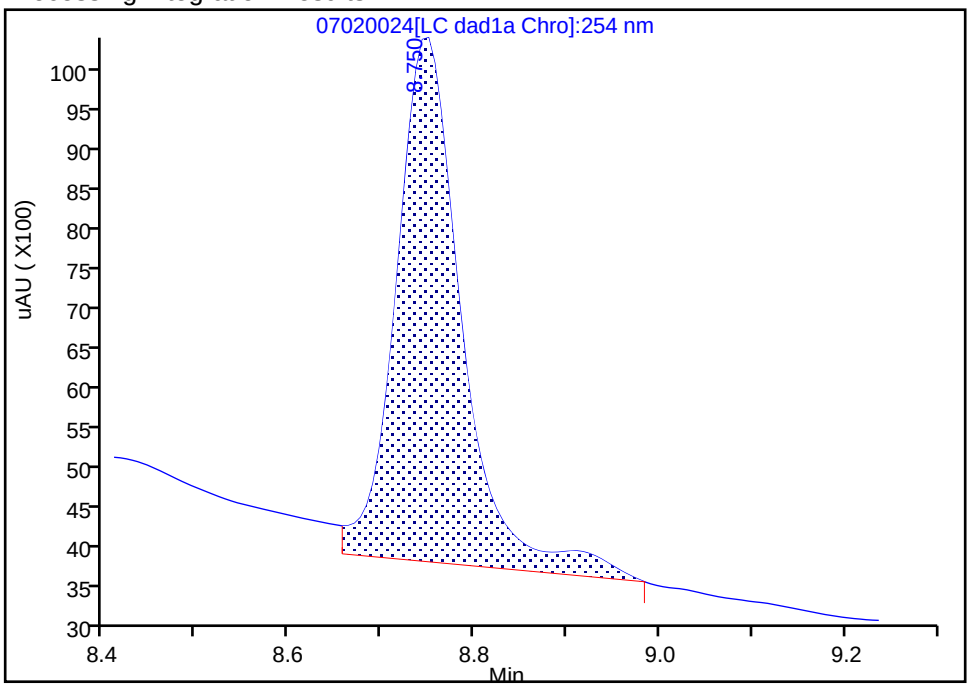
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

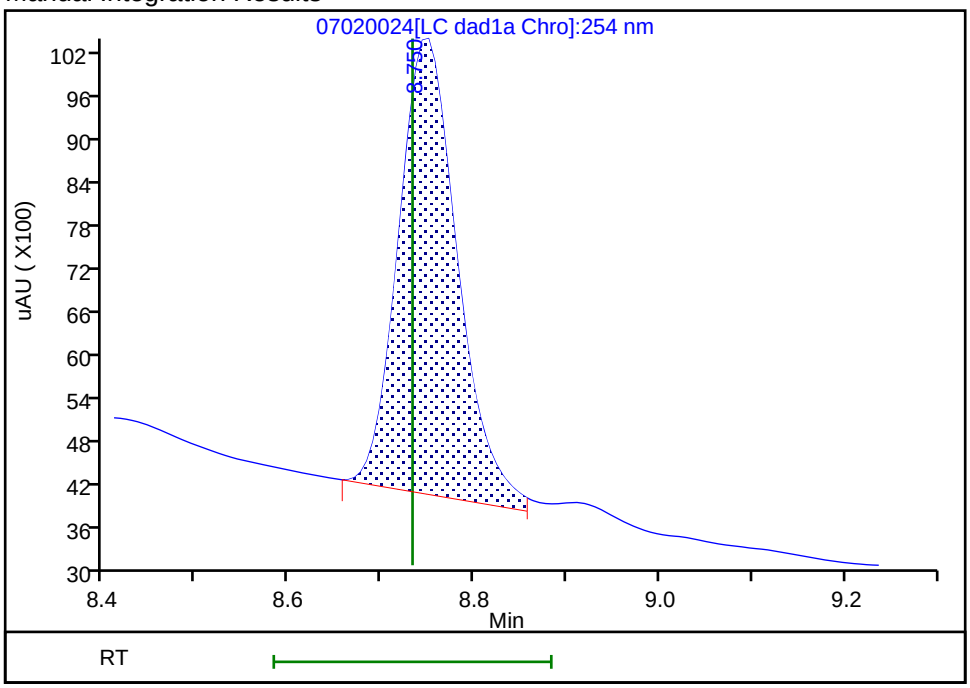
Processing Integration Results

RT: 8.75
Area: 32568
Amount: 0.235638
Amount Units: ug/mL



Manual Integration Results

RT: 8.75
Area: 28049
Amount: 0.202942
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:57:00
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

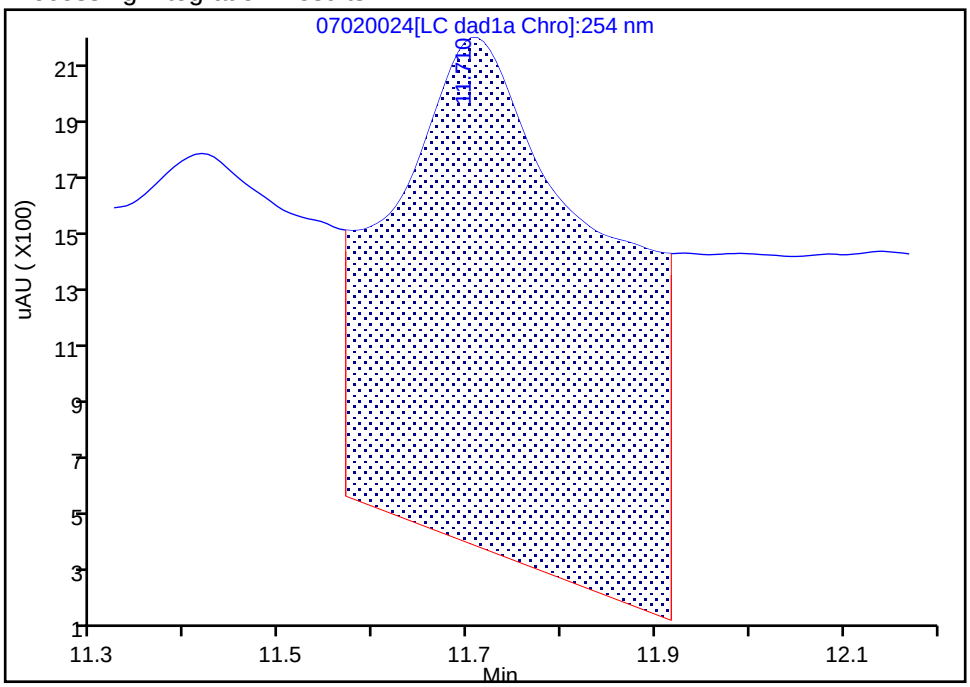
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

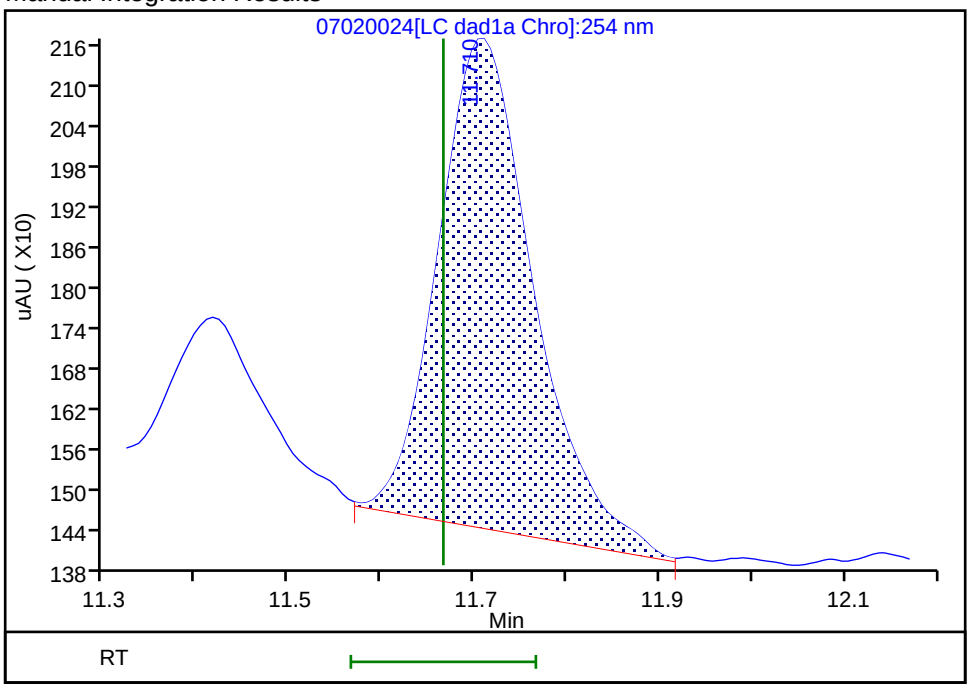
Processing Integration Results

RT: 11.71
Area: 28327
Amount: 0.139668
Amount Units: ug/mL



Manual Integration Results

RT: 11.71
Area: 5187
Amount: 0.025575
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:57:43
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

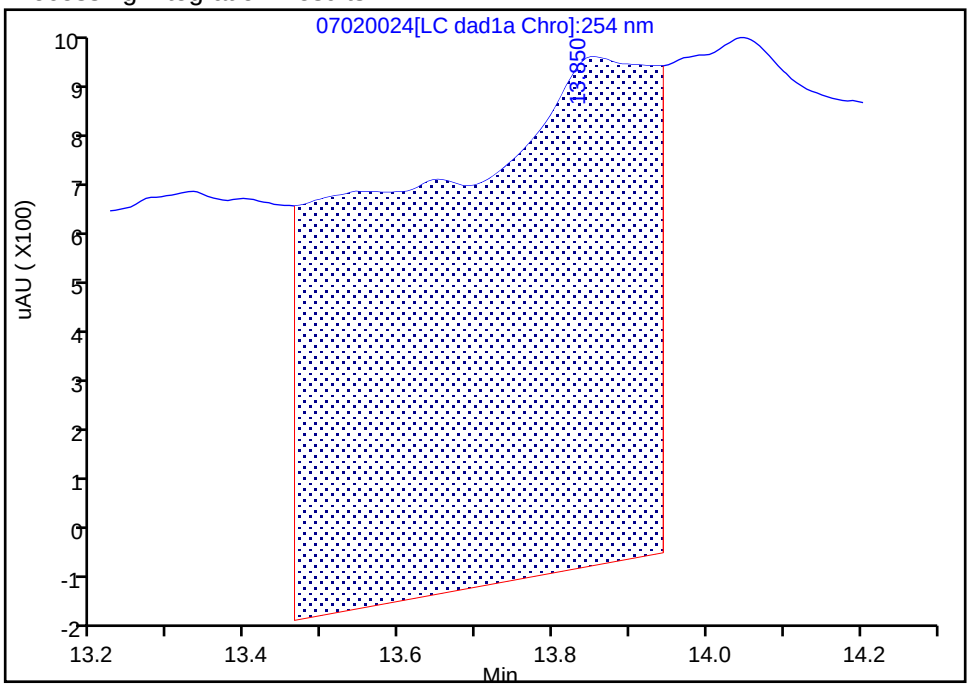
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

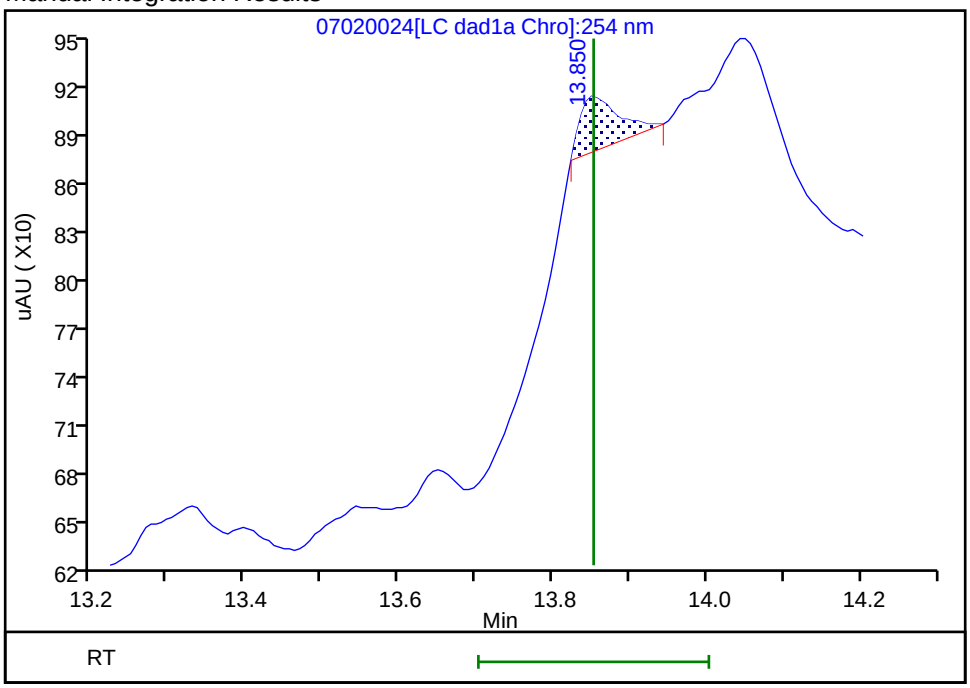
Processing Integration Results

RT: 13.85
Area: 23400
Amount: 0.163604
Amount Units: ug/mL



Manual Integration Results

RT: 13.85
Area: 113
Amount: 0.000790
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:57:51
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

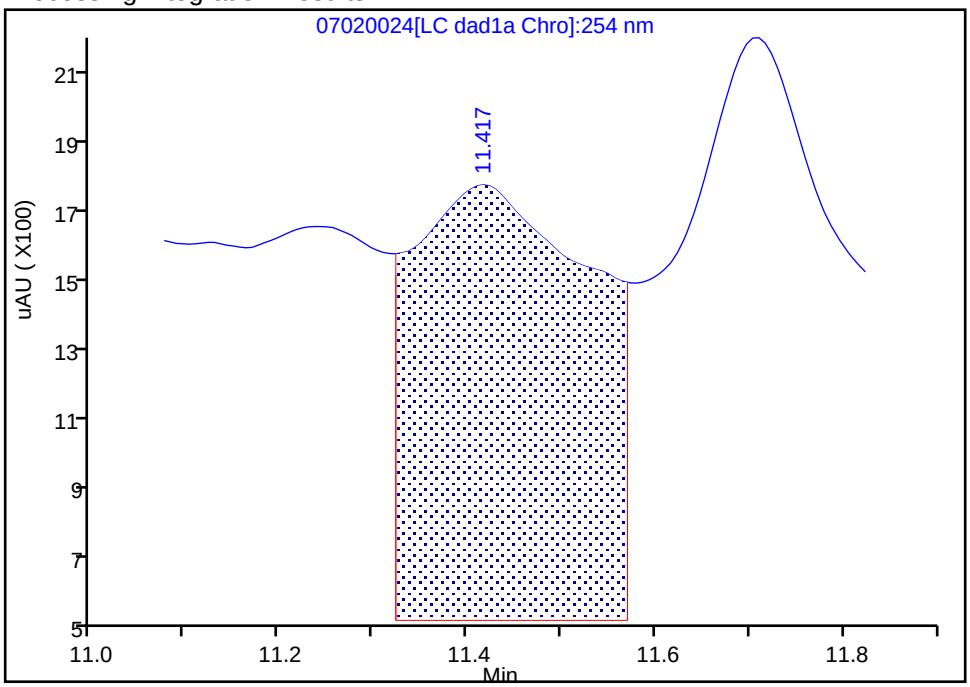
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

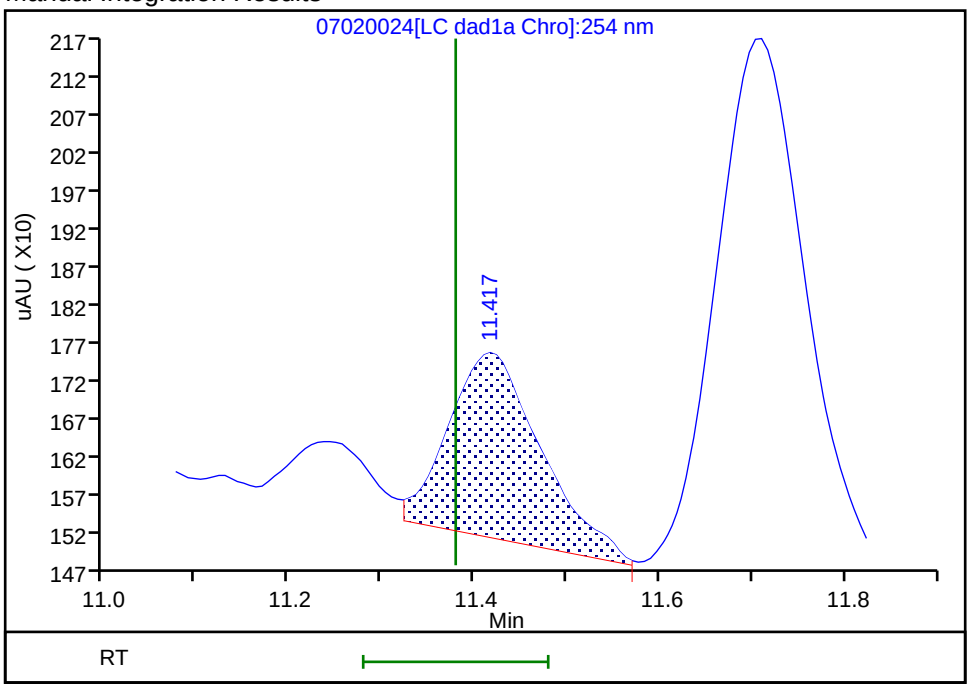
Processing Integration Results

RT: 11.42
Area: 15927
Amount: 0.095814
Amount Units: ug/mL



Manual Integration Results

RT: 11.42
Area: 1674
Amount: 0.015908
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:57:43
Audit Action: Assigned New Baseline Audit Reason: Baseline

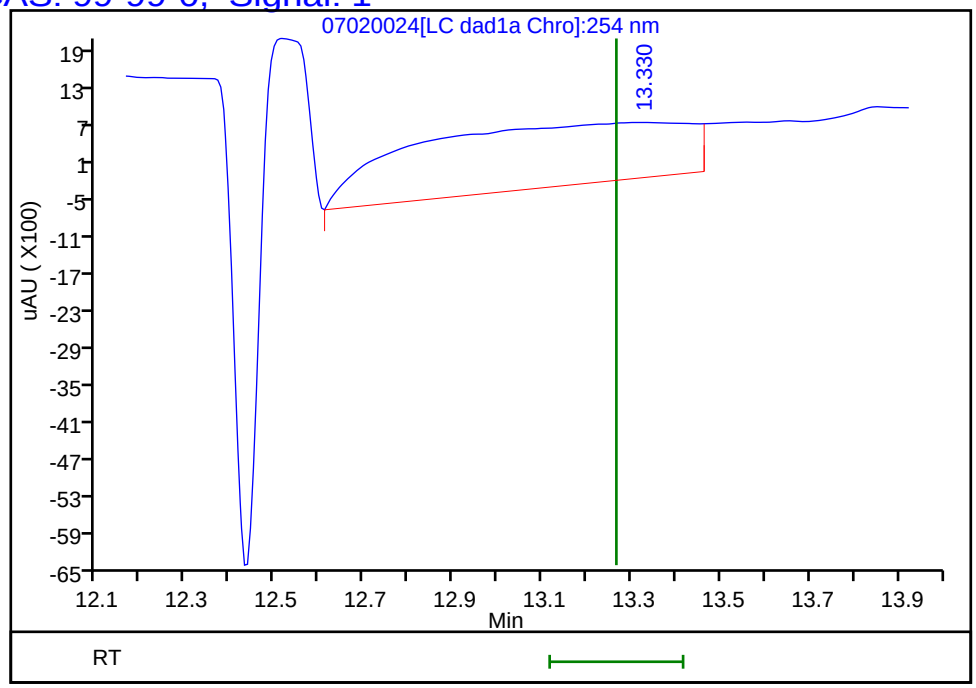
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 13.33
Response: 43570
Amount: 0.385558



Reviewer: zhangji, 03-Jul-2020 10:57:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

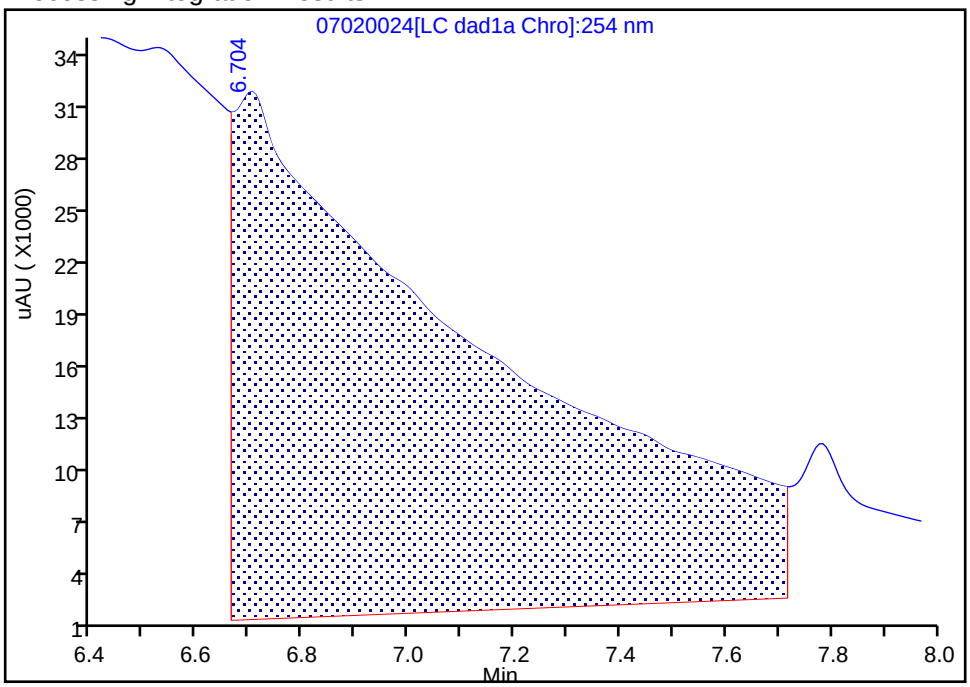
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

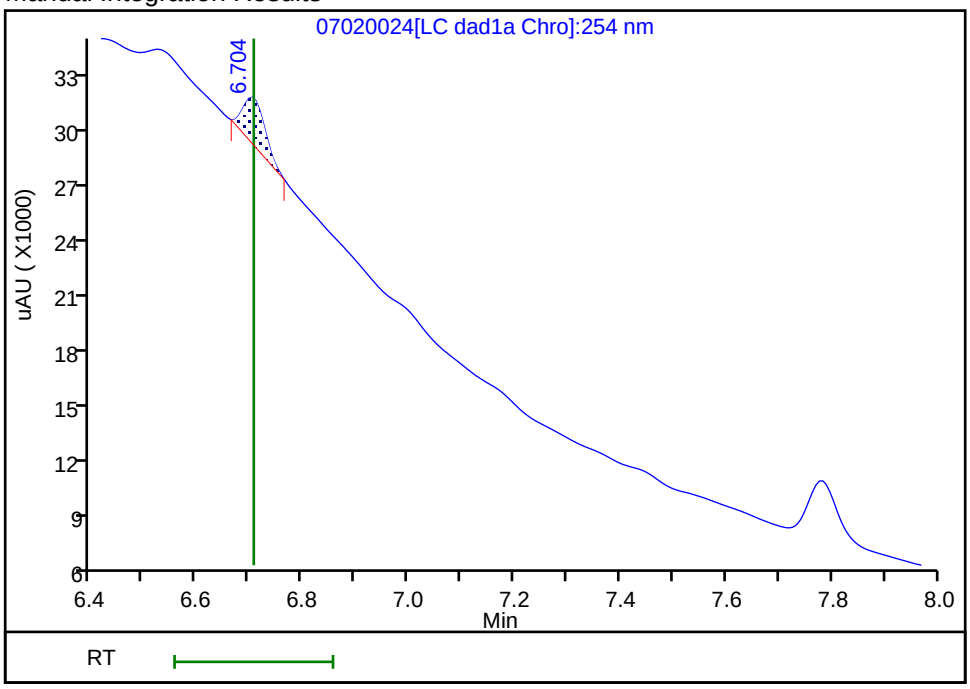
Processing Integration Results

RT: 6.70
Area: 969399
Amount: 11.277042
Amount Units: ug/mL



Manual Integration Results

RT: 6.70
Area: 7050
Amount: 0.082013
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:56:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

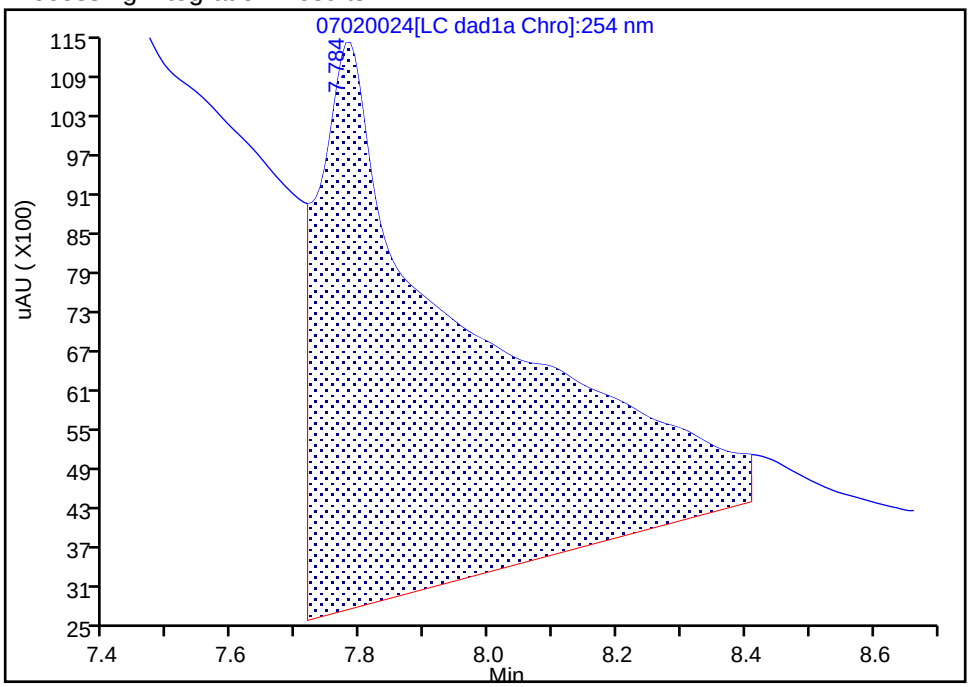
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 RDX, CAS: 121-82-4

Signal: 1

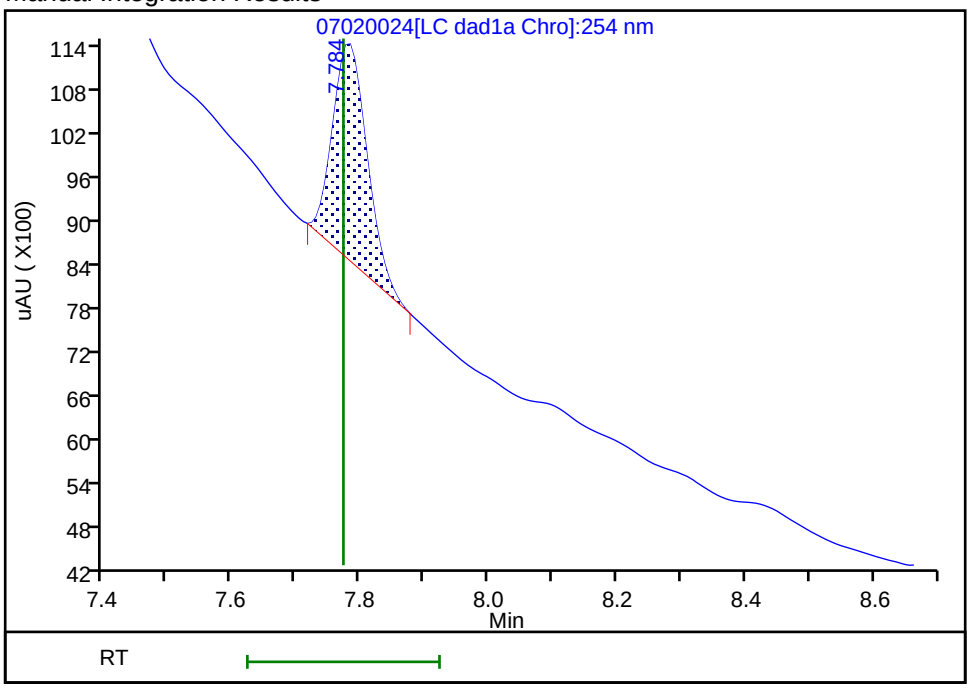
Processing Integration Results

RT: 7.78
Area: 145326
Amount: 1.246224
Amount Units: ug/mL



Manual Integration Results

RT: 7.78
Area: 11078
Amount: 0.094998
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:56:49

Audit Action: Manually Integrated Audit Reason: Baseline

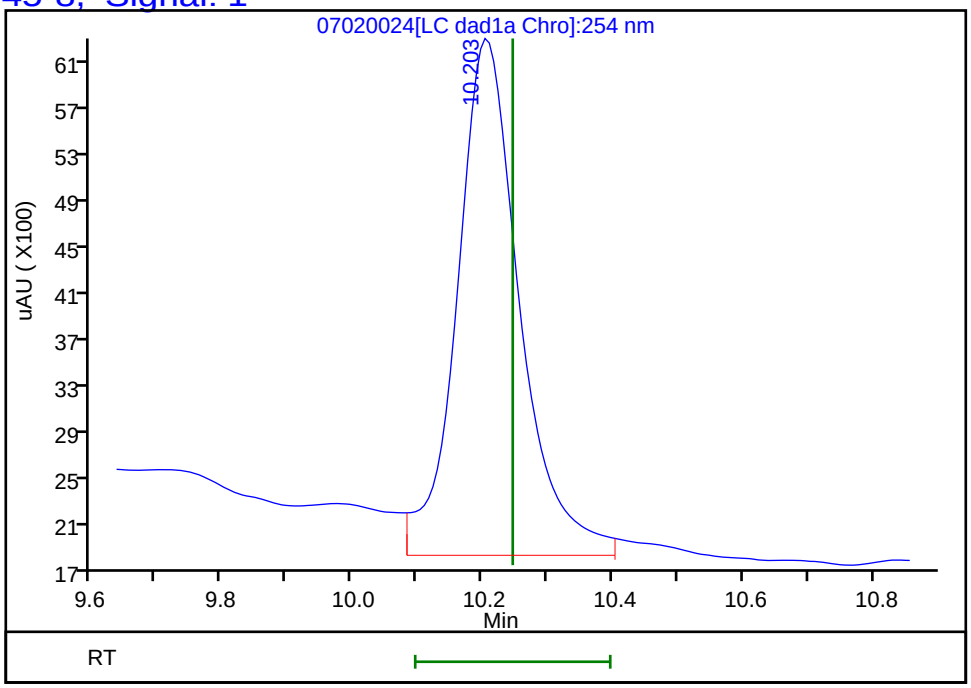
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020024.d				
Injection Date:	02-Jul-2020 23:30:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 Tetryl, CAS: 479-45-8, Signal: 1

RT: 10.20
Response: 30012
Amount: 0.169529



Reviewer: zhangji, 03-Jul-2020 10:57:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID: PZ018-20A
Lab Sample ID: 280-137848-1
Matrix: Water
Lab File ID: 07020035.D
Analysis Method: 8330A
Date Collected: 06/16/2020 15:15
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 461.2(mL)
Date Analyzed: 07/03/2020 12:03
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: Luna-phenylhex ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 501007
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*2.2*	*J1*	*0.12*	0.11	*0.055*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*3.1*	*M J1*	*0.16*	0.13	*0.063*
2691-41-0	*HMX*	*0.11*	*J M J1*	*0.23*	0.22	*0.095*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020035.D				
Lims ID:	280-137848-A-1-A				
Client ID:	PZ018-20A				
Sample Type:	Client				
Inject. Date:	03-Jul-2020 12:03:40	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-1-A				
Misc. Info.:	280-0092991-035				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 13:20:44	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 13:18:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1	7.204	7.249	-0.045	7061	0.009813	M
7 MNX	1		8.018			ND	
8 RDX	1	9.430	9.476	-0.046	9537	0.0390	
9 Nitrobenzene	1		12.409			ND	
$ 10 1,2-Dinitrobenzene	1	13.390	13.436	-0.046	53111	0.1849	
12 1,3-Dinitrobenzene	1		15.962			ND	
14 o-Nitrotoluene	1		16.916			ND	U
15 p-Nitrotoluene	1		17.196			ND	
16 4-Amino-2,6-dinitrotoluene	1	17.597	17.649	-0.052	97758	0.2832	M
17 m-Nitrotoluene	1		18.129			ND	
18 2-Amino-4,6-dinitrotoluene	1	18.530	18.589	-0.059	93850	0.2017	
19 1,3,5-Trinitrobenzene	1	19.257	19.309	-0.052	9567	0.0202	M
20 2,6-Dinitrotoluene	1		20.249			ND	
21 2,4-Dinitrotoluene	1		20.756			ND	U
22 Tetryl	1		24.062			ND	
23 2,4,6-Trinitrotoluene	1	25.030	25.056	-0.026	484793	1.20	M

QC Flag Legend

Review Flags

M - Manually Integrated

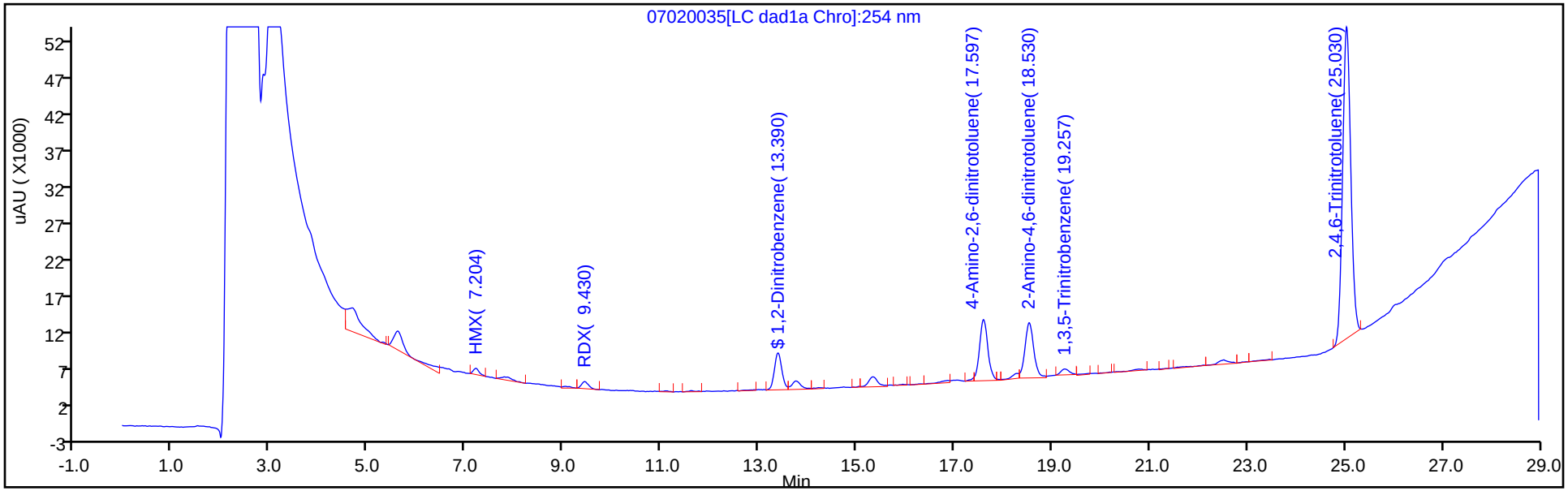
U - Marked Undetected

Report Date: 03-Jul-2020 13:20:46 Chrom Revision: 2.3 21-Jun-2020 18:30:46

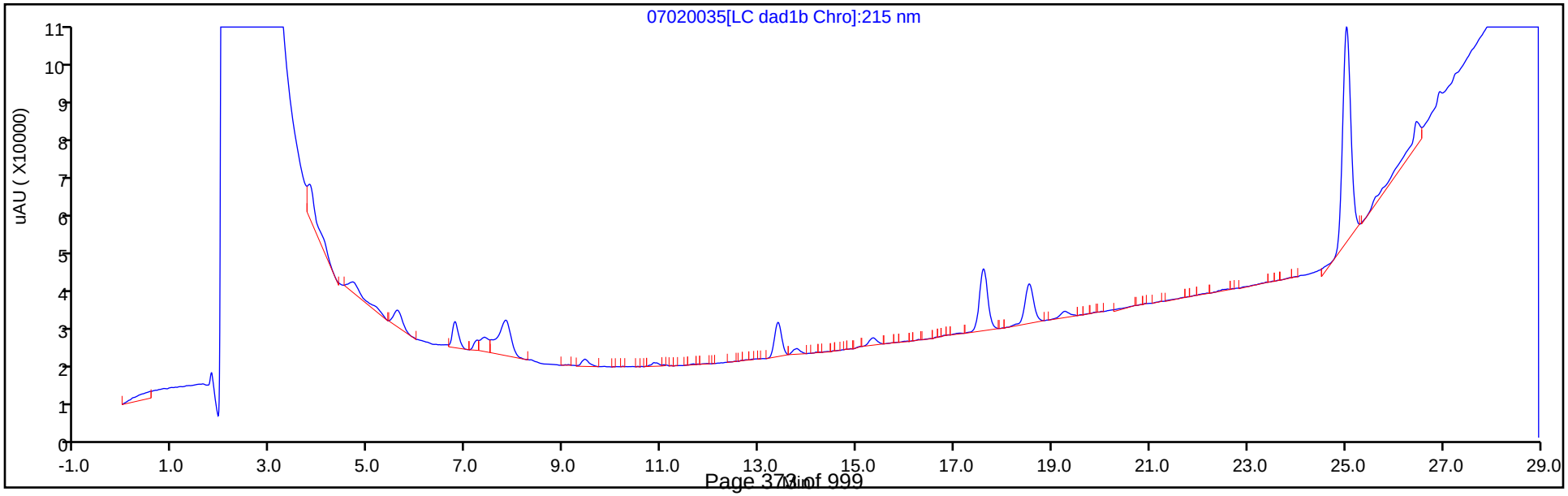
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1	Worklist Smp#:	35
Client ID:	PZ018-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020035.D				
Lims ID:	280-137848-A-1-A				
Client ID:	PZ018-20A				
Sample Type:	Client				
Inject. Date:	03-Jul-2020 12:03:40	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-1-A				
Misc. Info.:	280-0092991-035				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 13:20:44	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 13:18:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1849	92.47

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

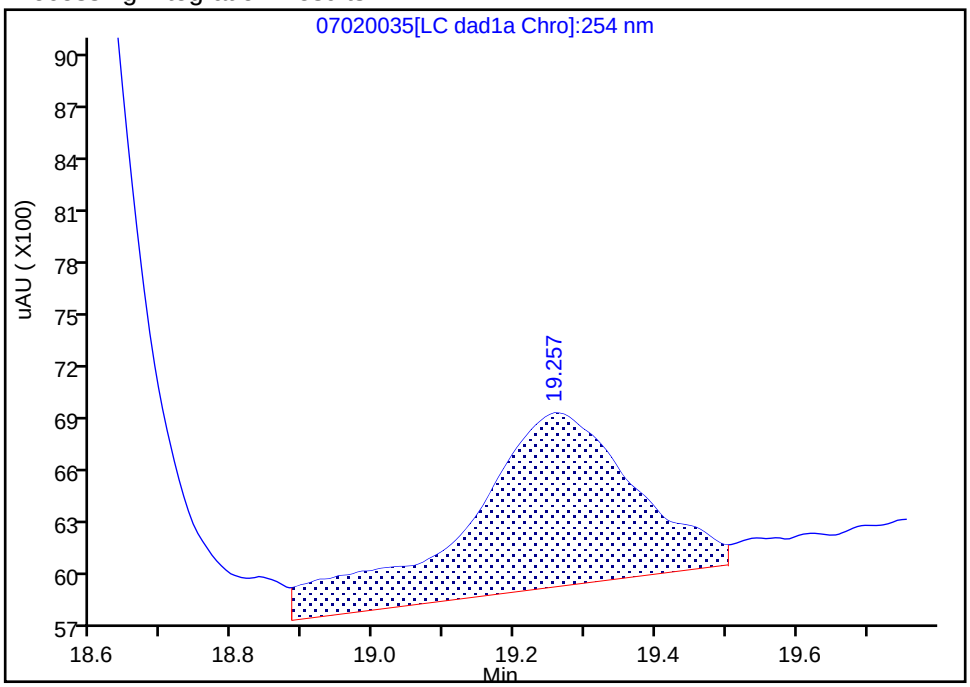
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

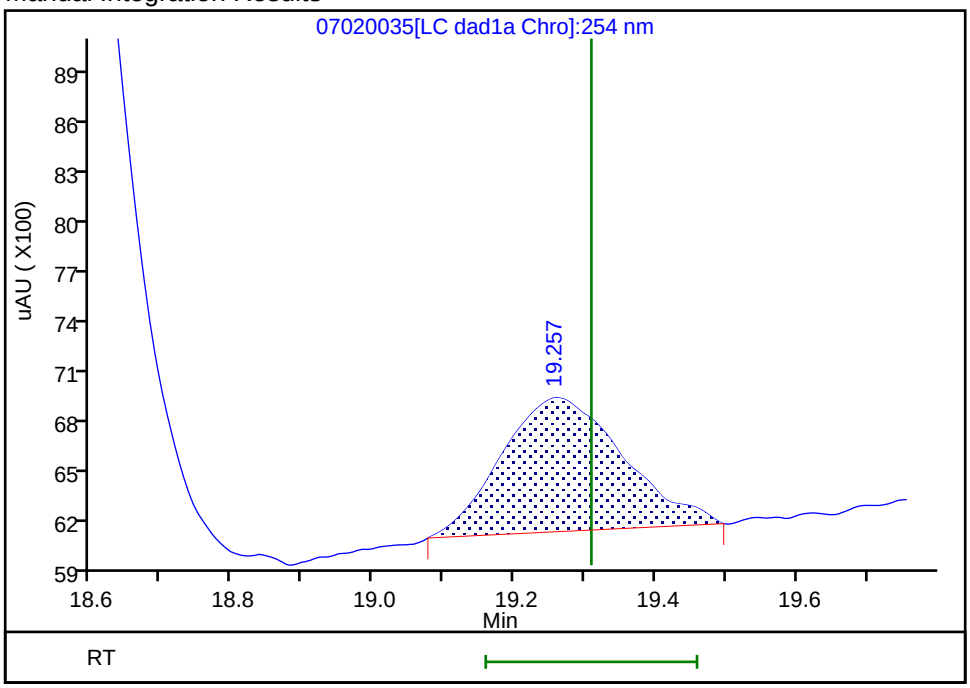
Processing Integration Results

RT: 19.26
Area: 16829
Amount: 0.035621
Amount Units: ug/ml



Manual Integration Results

RT: 19.26
Area: 9567
Amount: 0.020250
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 12:49:05

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

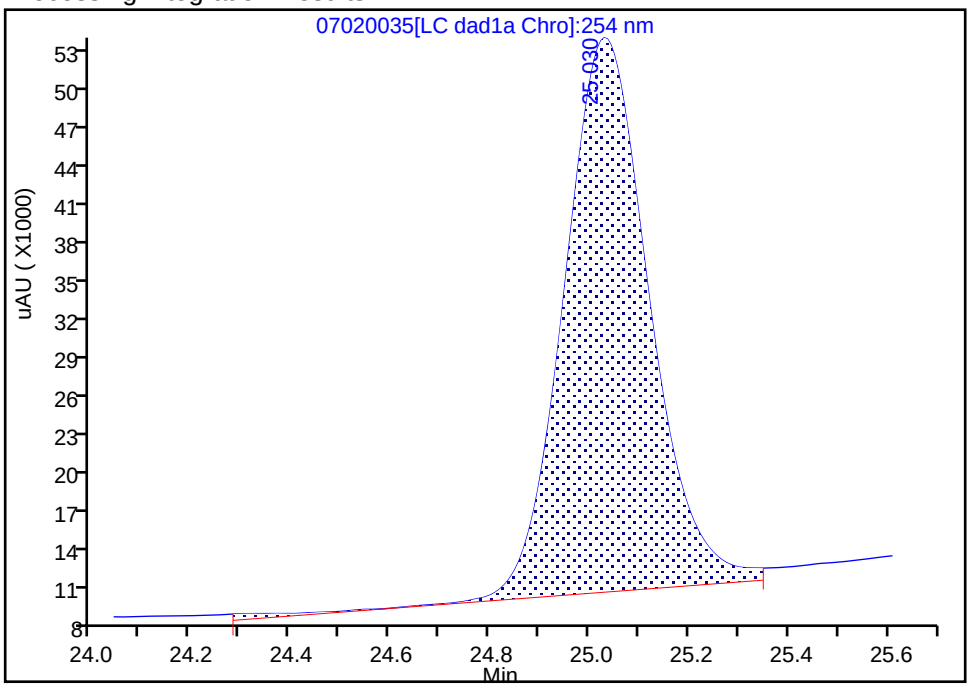
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

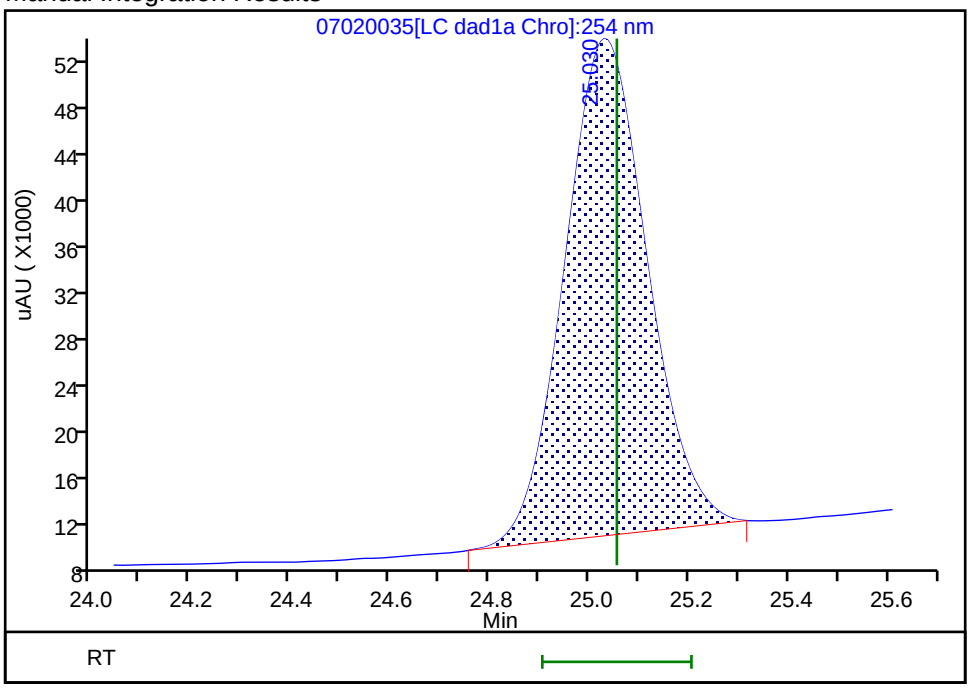
Processing Integration Results

RT: 25.03
Area: 510792
Amount: 1.263997
Amount Units: ug/ml



Manual Integration Results

RT: 25.03
Area: 484793
Amount: 1.199260
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 12:49:12

Audit Action: Manually Integrated Audit Reason: Baseline

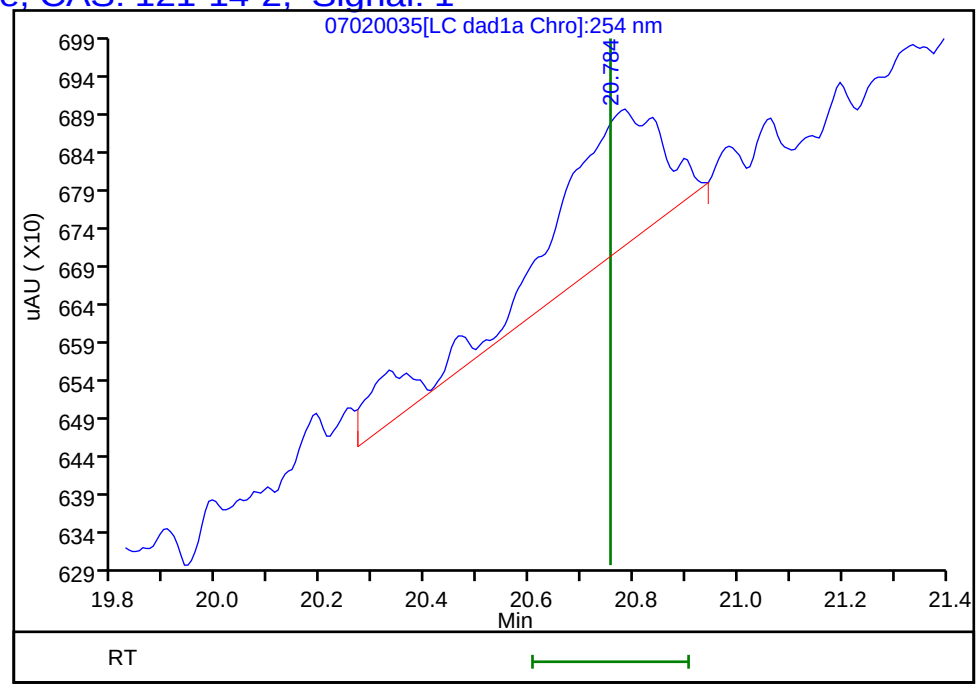
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 20.78
Response: 2961
Amount: 0.004626



Reviewer: zhangji, 03-Jul-2020 13:18:48
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

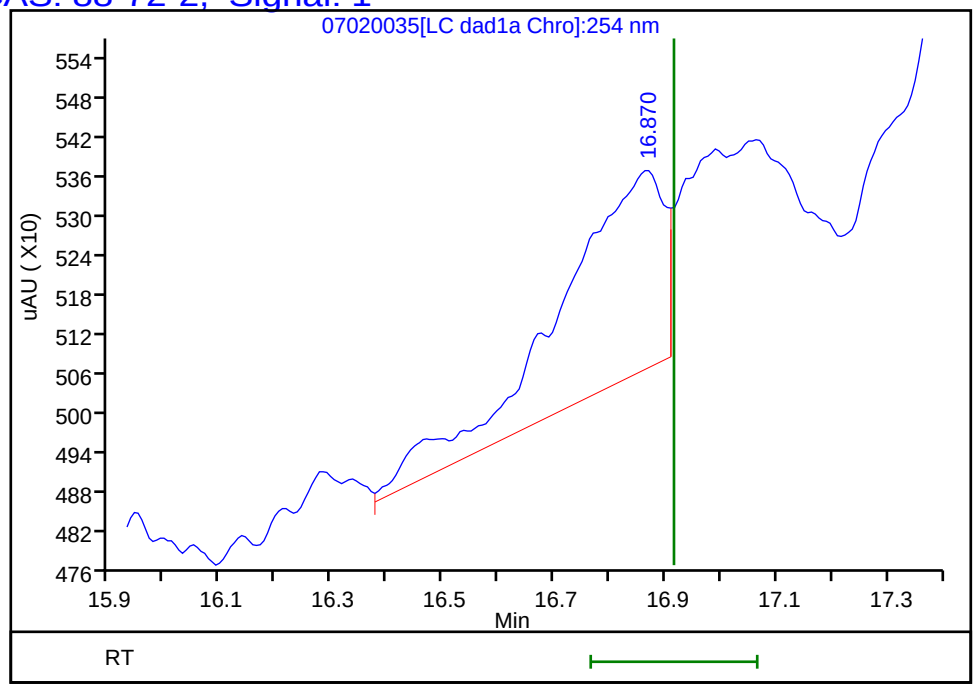
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.87
Response: 4150
Amount: 0.015203



Reviewer: zhangji, 03-Jul-2020 13:18:48
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

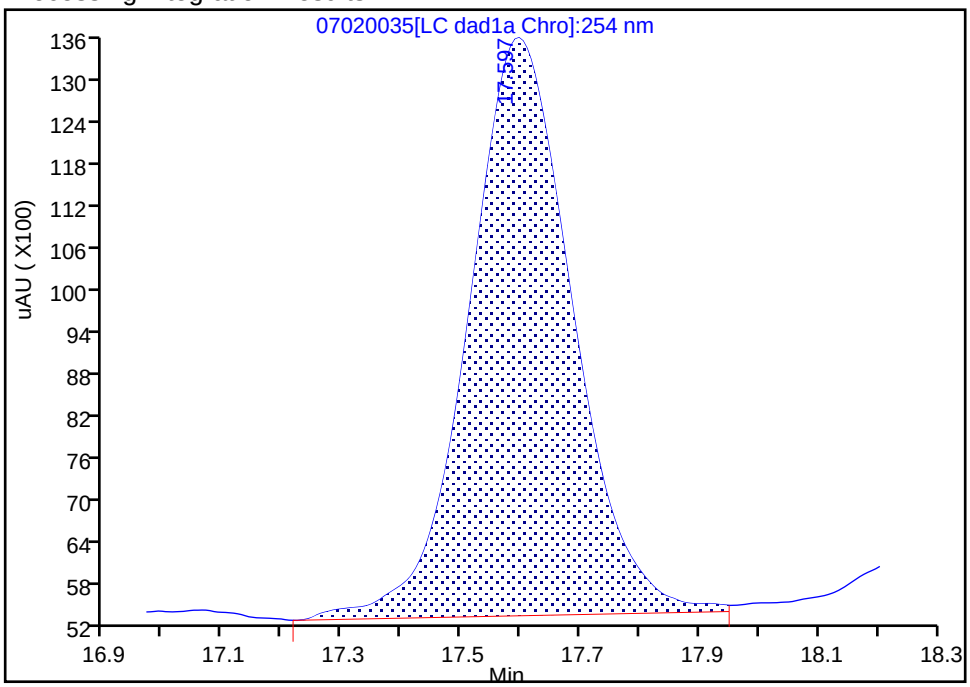
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

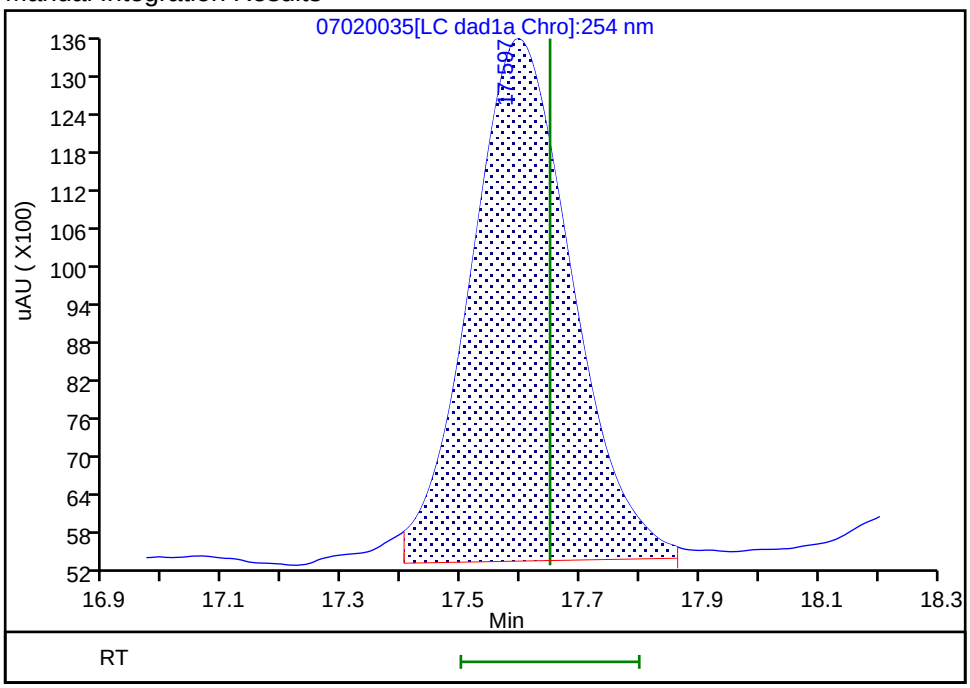
Processing Integration Results

RT: 17.60
Area: 100374
Amount: 0.290741
Amount Units: ug/ml



Manual Integration Results

RT: 17.60
Area: 97758
Amount: 0.283164
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 12:49:19

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

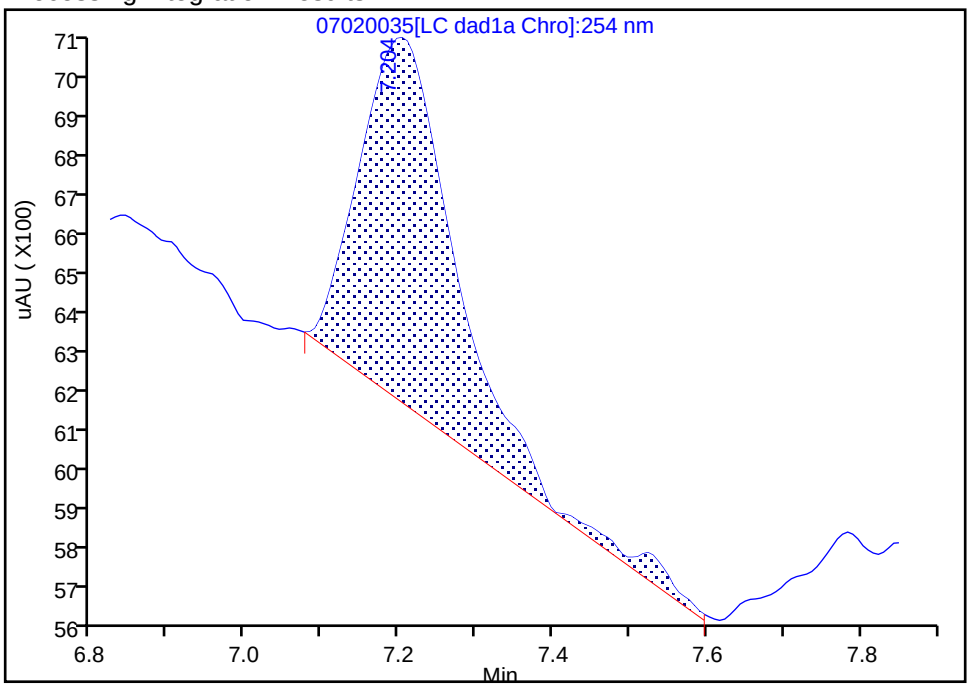
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020035.d				
Injection Date:	03-Jul-2020 12:03:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-1-A	Lab Sample ID:	280-137848-1		
Client ID:	PZ018-20A				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

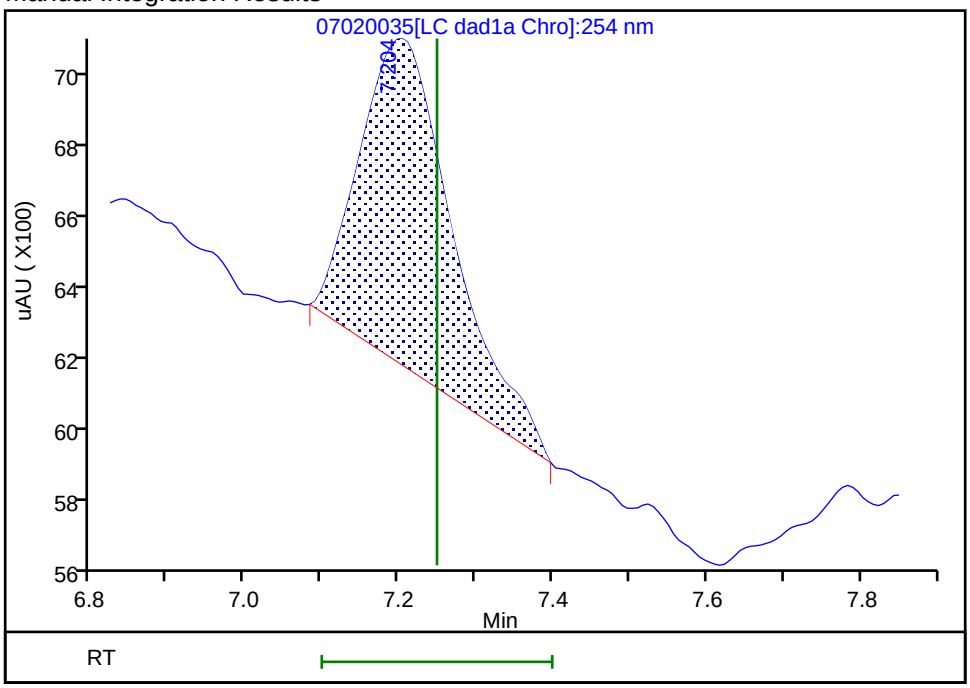
Processing Integration Results

RT: 7.20
Area: 7552
Amount: 0.012587
Amount Units: ug/ml



Manual Integration Results

RT: 7.20
Area: 7061
Amount: 0.009813
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 12:48:52

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID: G0090-20A
Lab Sample ID: 280-137848-2
Matrix: Water
Lab File ID: 07020023.D
Analysis Method: 8330A
Date Collected: 06/16/2020 14:55
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 469.1(mL)
Date Analyzed: 07/02/2020 23:07
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500997
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	2.4	J1	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	0.43	U	0.43	0.43	0.21
2691-41-0	HMX	0.21	U	0.22	0.21	0.093
5755-27-1	MNX	0.43	U M	2.1	0.43	0.16
121-82-4	RDX	0.45	J1	0.22	0.21	0.055
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96	M	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020023.D				
Lims ID:	280-137848-A-2-A				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	02-Jul-2020 23:07:17	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-2-A				
Misc. Info.:	280-0092988-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		

Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m		
Limit Group:	GCSV - 8330		
Last Update:	03-Jul-2020 11:09:14	Calib Date:	26-Jun-2020 01:16:48
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D		

Column 1 :	UltraCarb5uODS (20) (4.60 mm)	Det: LC DAD1B, 254 nm
Process Host:	CTX1025	

First Level Reviewer: zhangji Date: 03-Jul-2020 10:56:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1		6.706			ND	
6 MNX	1		7.369			ND	U
7 RDX	1	7.778	7.773	0.005	4955	0.0425	
$ 9 1,2-Dinitrobenzene	1	8.751	8.733	0.018	26401	0.1910	M
10 1,3,5-Trinitrobenzene	1	8.925	8.906	0.019	5692	0.0247	M
11 1,3-Dinitrobenzene	1		9.559			ND	U
12 Nitrobenzene	1	9.971	9.933	0.038	2937	0.0147	M
14 Tetryl	1		10.246			ND	MU
16 2,4,6-Trinitrotoluene	1	11.245	11.213	0.032	268472	1.32	
17 4-Amino-2,6-dinitrotoluene	1	11.418	11.379	0.039	53275	0.3052	
18 2-Amino-4,6-dinitrotoluene	1	11.711	11.666	0.045	44759	0.2207	
19 2,6-Dinitrotoluene	1		11.806			ND	
20 2,4-Dinitrotoluene	1		12.006			ND	
21 o-Nitrotoluene	1		12.826			ND	U
22 p-Nitrotoluene	1	13.271	13.266	0.005	1941	0.0172	
23 m-Nitrotoluene	1		13.853			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

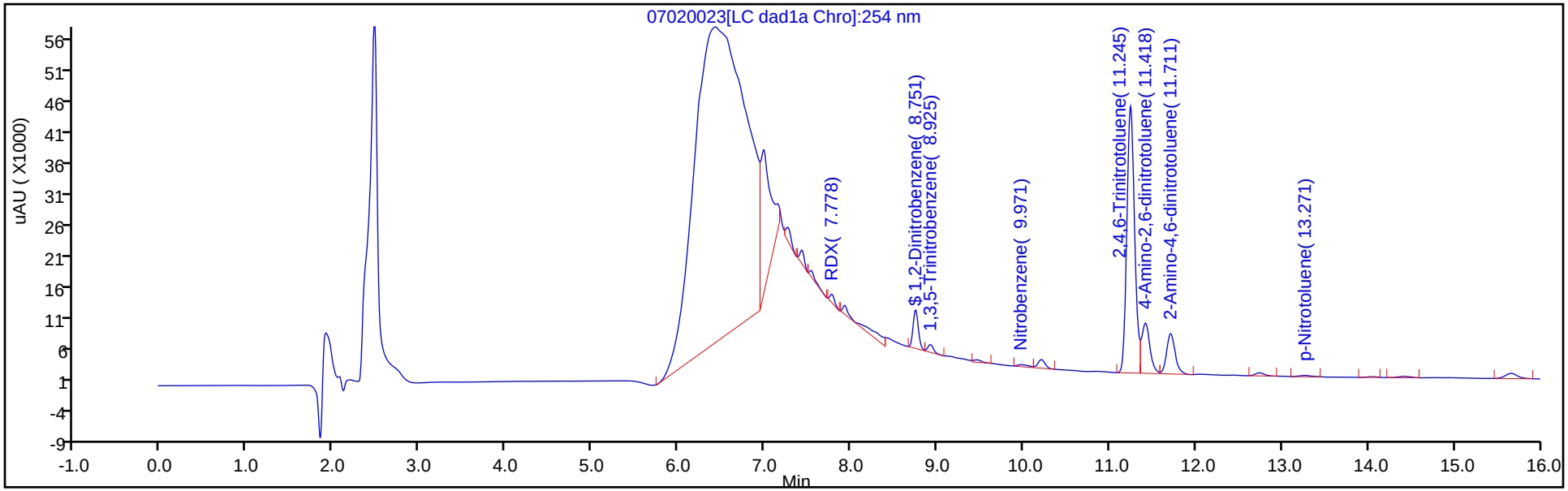
U - Marked Undetected

Report Date: 03-Jul-2020 11:09:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

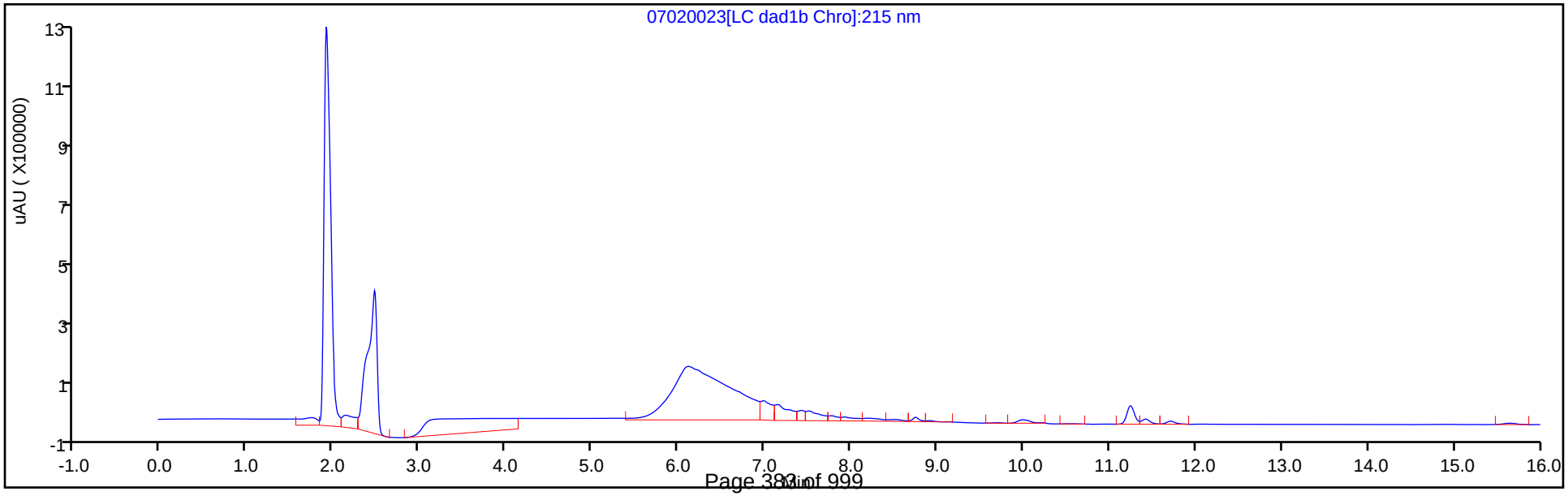
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2	Worklist Smp#:	23
Client ID:	G0090-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020023.D				
Lims ID:	280-137848-A-2-A				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	02-Jul-2020 23:07:17	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-2-A				
Misc. Info.:	280-0092988-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 11:09:14	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 10:56:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1910	95.51

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

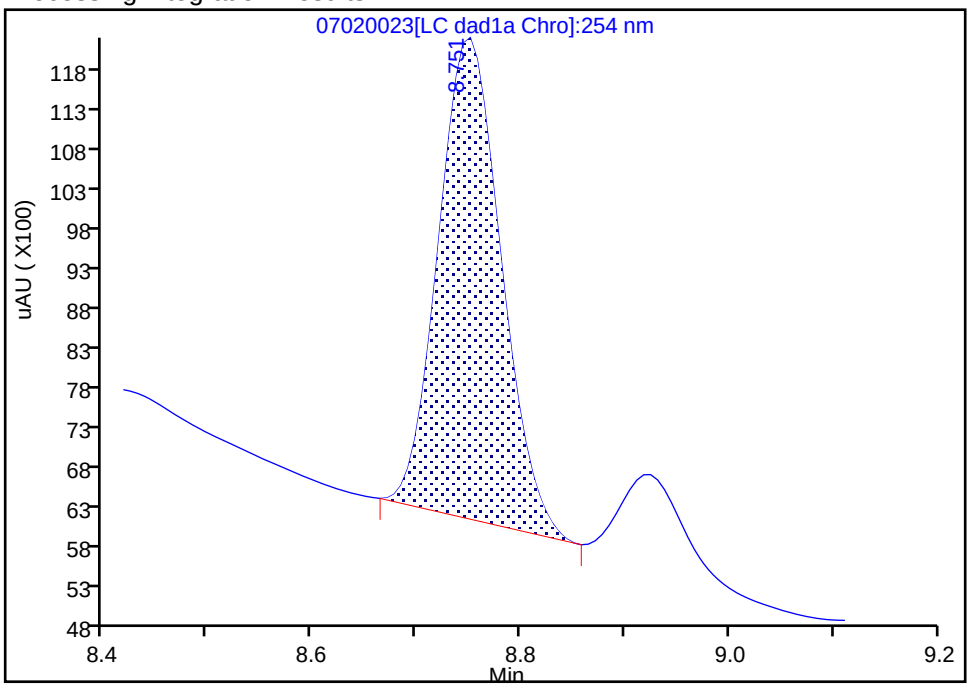
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

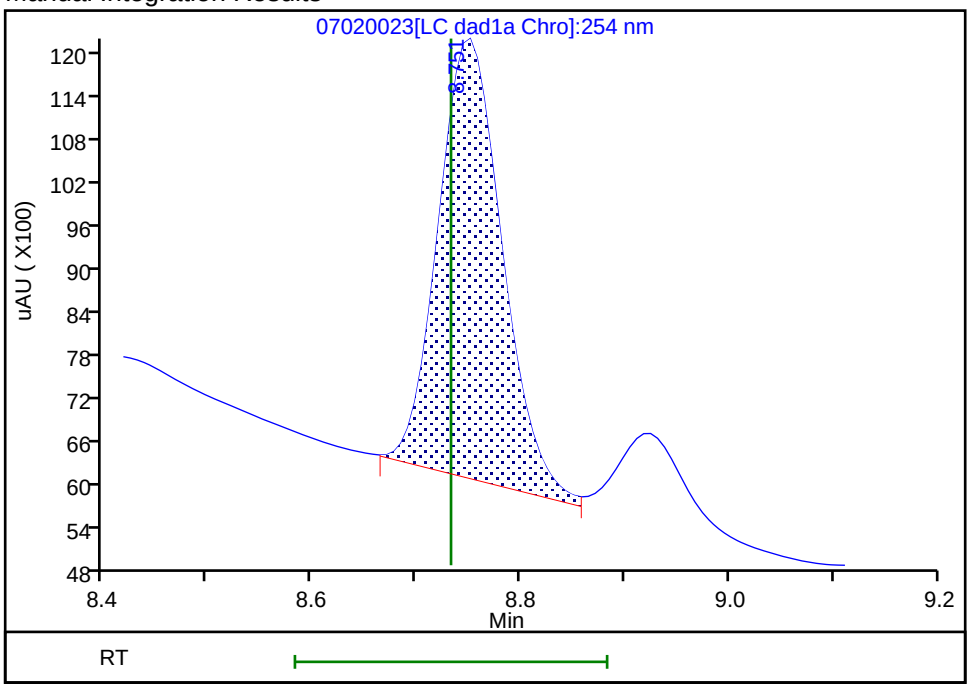
Processing Integration Results

RT: 8.75
Area: 25537
Amount: 0.184767
Amount Units: ug/mL



Manual Integration Results

RT: 8.75
Area: 26401
Amount: 0.191018
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:56:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

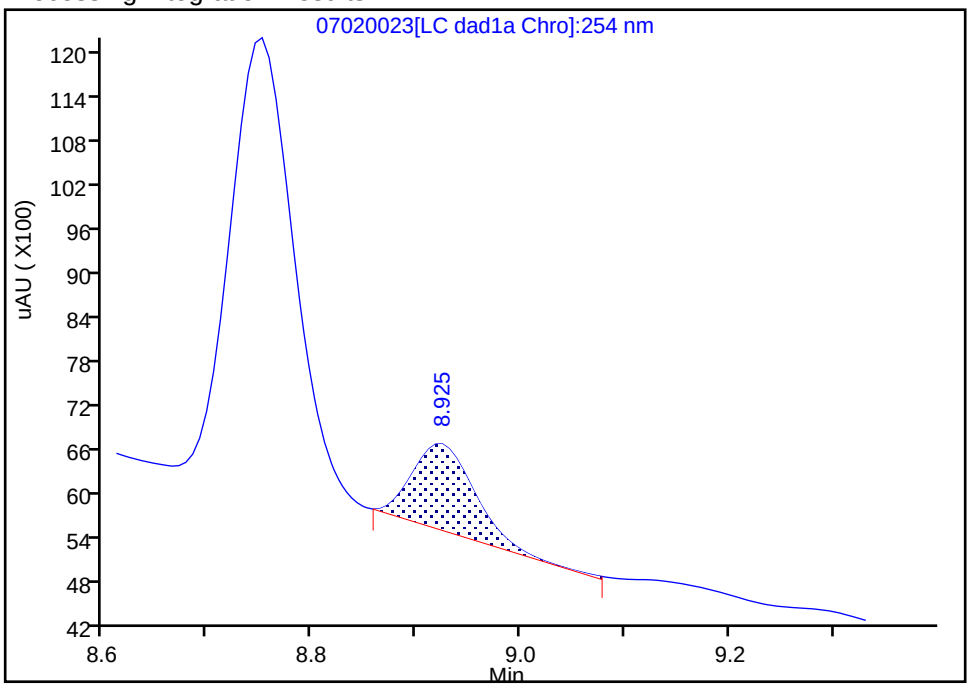
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

10 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

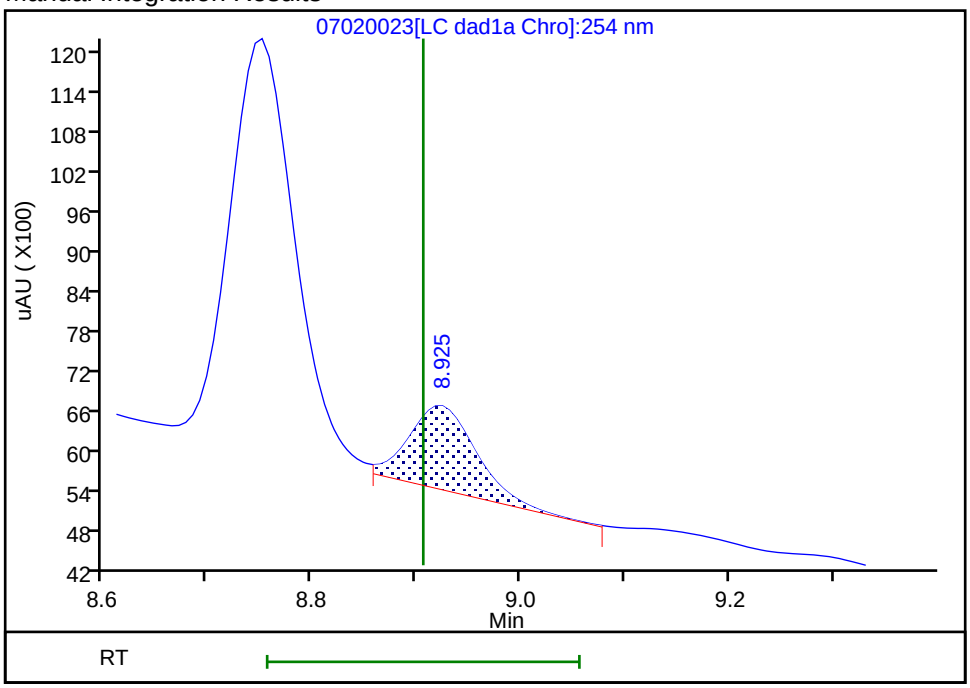
Processing Integration Results

RT: 8.92
Area: 4933
Amount: 0.021419
Amount Units: ug/mL



Manual Integration Results

RT: 8.92
Area: 5692
Amount: 0.024715
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:56:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

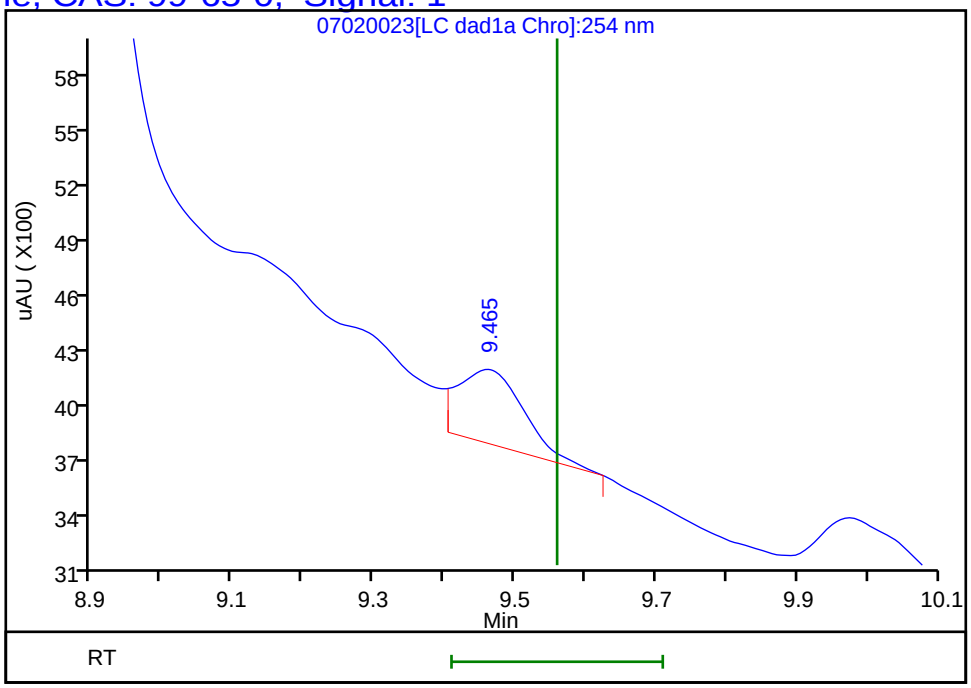
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.46
Response: 2479
Amount: 0.008083



Reviewer: zhangji, 03-Jul-2020 10:56:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

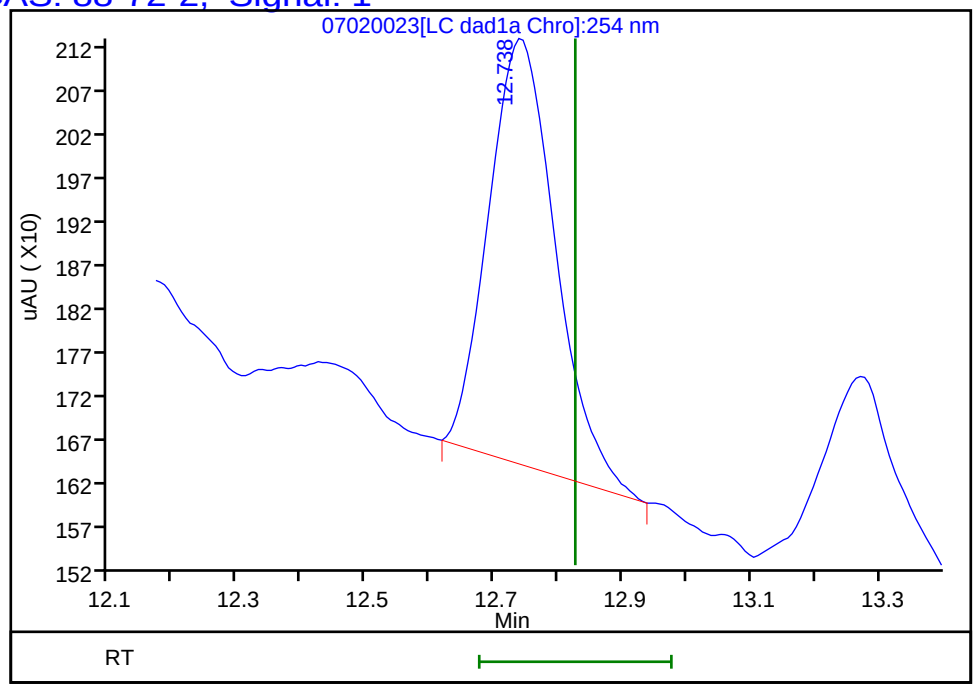
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.74
Response: 3562
Amount: 0.026375



Reviewer: zhangji, 03-Jul-2020 10:56:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

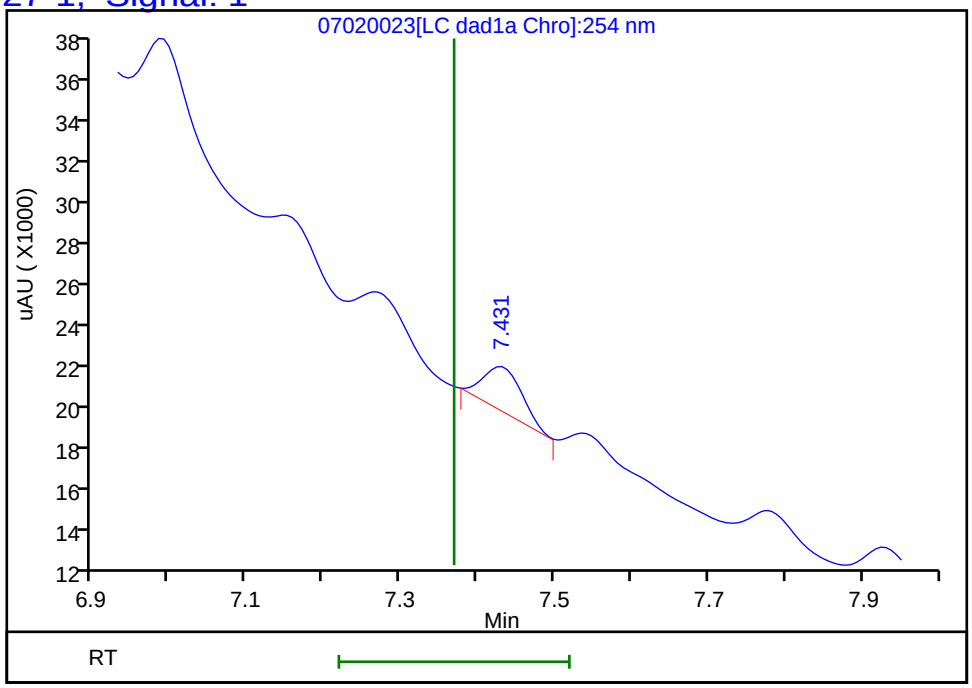
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.43
Response: 7593
Amount: 0.047892



Reviewer: zhangji, 03-Jul-2020 10:56:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

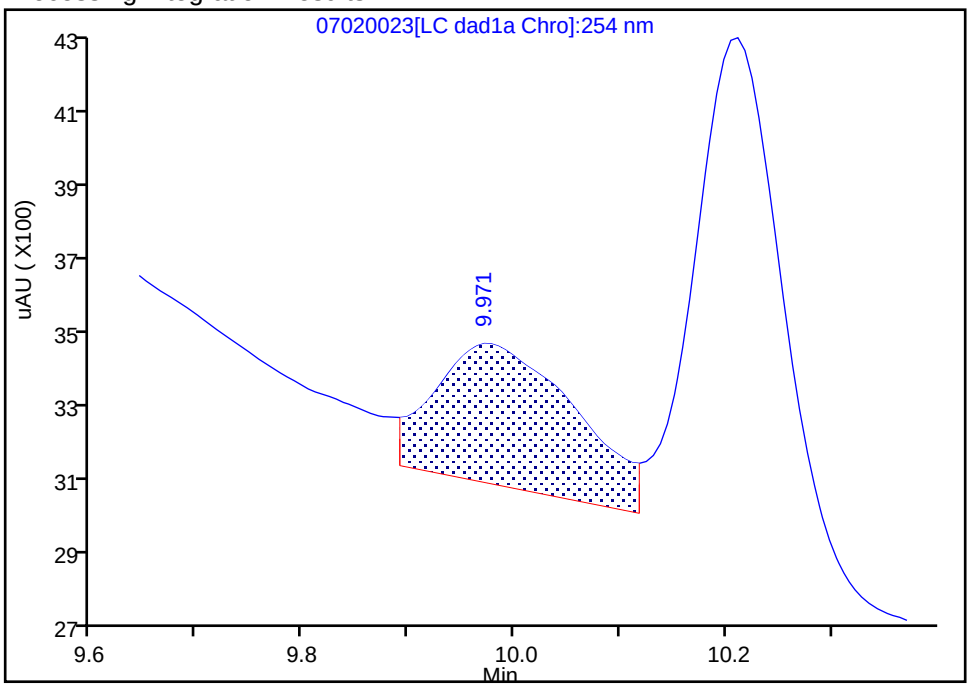
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

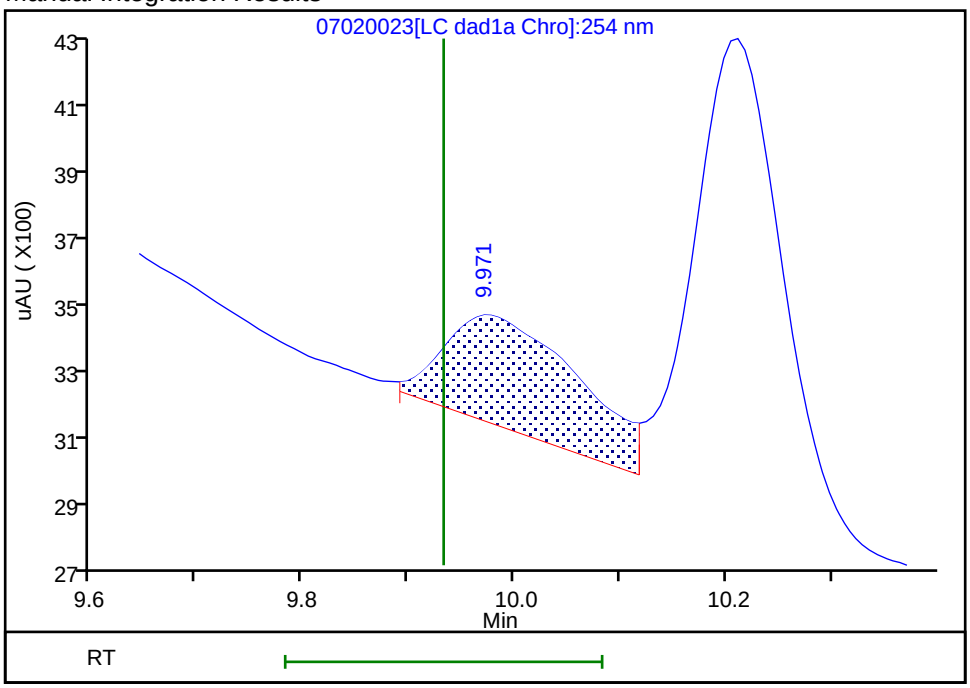
Processing Integration Results

RT: 9.97
Area: 3488
Amount: 0.017405
Amount Units: ug/mL



Manual Integration Results

RT: 9.97
Area: 2937
Amount: 0.014655
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:56:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

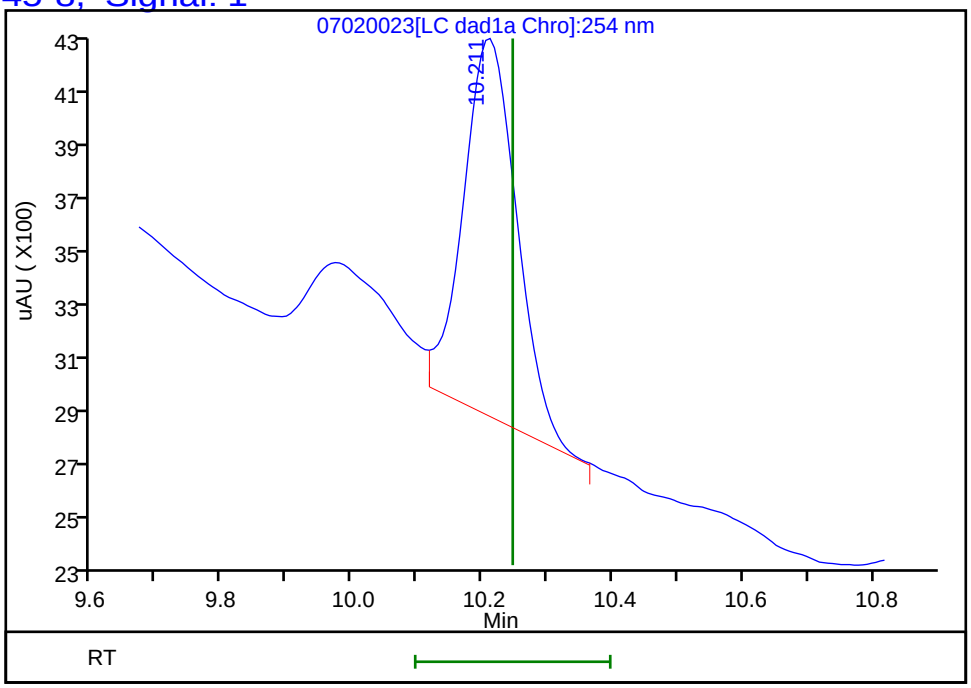
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020023.d				
Injection Date:	02-Jul-2020 23:07:17	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 Tetryl, CAS: 479-45-8, Signal: 1

RT: 10.21
Response: 7873
Amount: 0.044472



Reviewer: zhangji, 03-Jul-2020 10:56:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID: G0090-20A
Lab Sample ID: 280-137848-2
Matrix: Water
Lab File ID: 07020036.D
Analysis Method: 8330A
Date Collected: 06/16/2020 14:55
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 469.1(mL)
Date Analyzed: 07/03/2020 12:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: Luna-phenylhex ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 501007
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.090
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.28*	*M J1*	*0.12*	0.11	*0.054*
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.097
121-82-4	*RDX*	*1.0*	*M J1*	*0.22*	0.21	*0.055*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93	*M*	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020036.D				
Lims ID:	280-137848-A-2-A				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	03-Jul-2020 12:38:38	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-2-A				
Misc. Info.:	280-0092991-036				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		

Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m		
Limit Group:	GCSV - 8330		
Last Update:	03-Jul-2020 13:20:44	Calib Date:	15-May-2020 02:11:20
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D		

Column 1 :	Luna-Phenyl hexyl (4.60 mm)	Det: LC DAD1A, 254 nm
Process Host:	CTX1025	

First Level Reviewer: zhangji Date: 03-Jul-2020 13:19:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1	7.205	7.249	-0.044	15415	0.0570	M
7 MNX	1		8.018			ND	
8 RDX	1	9.432	9.476	-0.044	23651	0.0968	M
9 Nitrobenzene	1		12.409			ND	
$ 10 1,2-Dinitrobenzene	1	13.385	13.436	-0.051	53321	0.1857	M
12 1,3-Dinitrobenzene	1		15.962			ND	
14 o-Nitrotoluene	1	16.859	16.916	-0.057	2697	0.009880	M
15 p-Nitrotoluene	1		17.196			ND	
16 4-Amino-2,6-dinitrotoluene	1		17.649			ND	
17 m-Nitrotoluene	1		18.129			ND	MU
18 2-Amino-4,6-dinitrotoluene	1	18.519	18.589	-0.070	12255	0.0263	M
19 1,3,5-Trinitrobenzene	1		19.309			ND	MU
20 2,6-Dinitrotoluene	1		20.249			ND	
21 2,4-Dinitrotoluene	1		20.756			ND	
22 Tetryl	1		24.062			ND	U
23 2,4,6-Trinitrotoluene	1		25.056			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

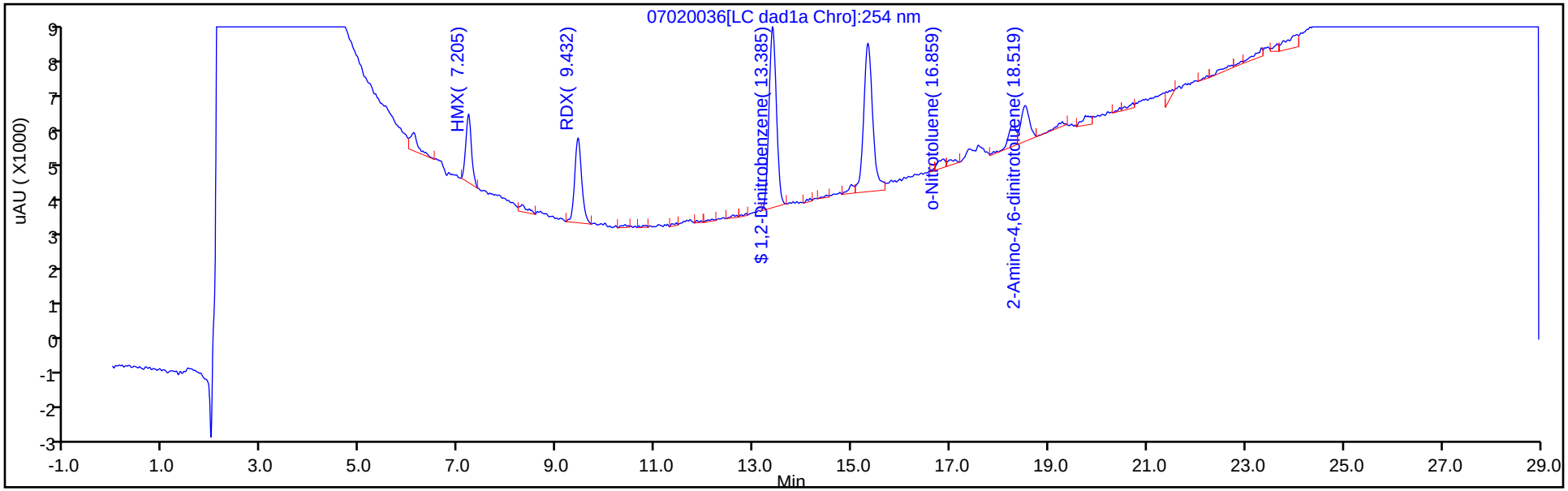
U - Marked Undetected

Report Date: 03-Jul-2020 13:20:46 Chrom Revision: 2.3 21-Jun-2020 18:30:46

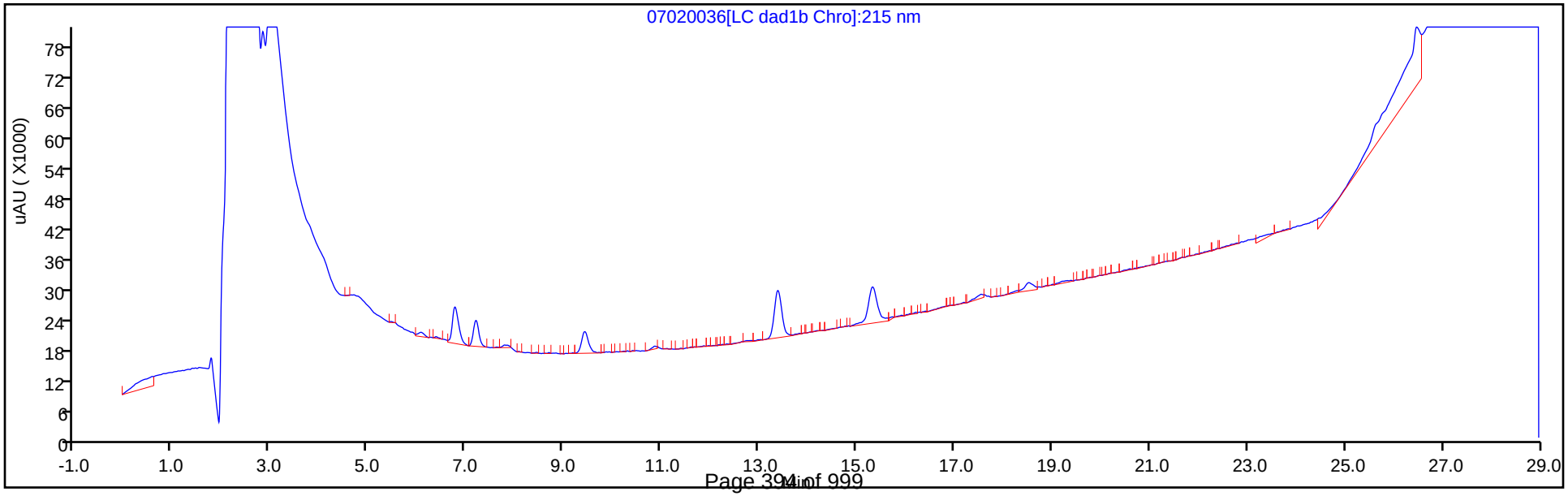
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2	Worklist Smp#:	36
Client ID:	G0090-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020036.D				
Lims ID:	280-137848-A-2-A				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	03-Jul-2020 12:38:38	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137848-A-2-A				
Misc. Info.:	280-0092991-036				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 13:20:44	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 13:19:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1857	92.85

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

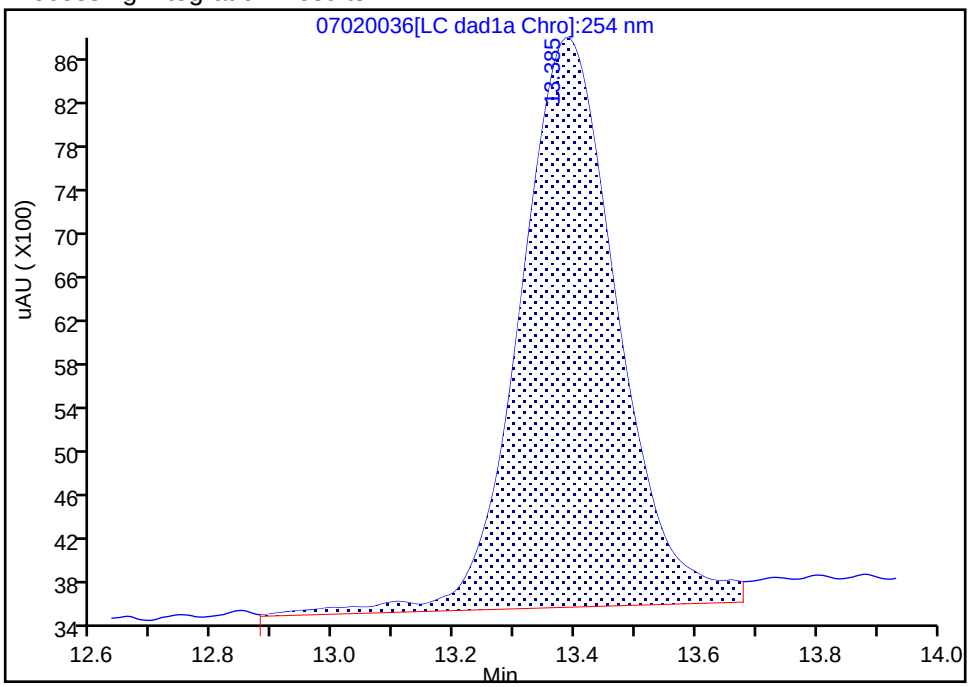
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

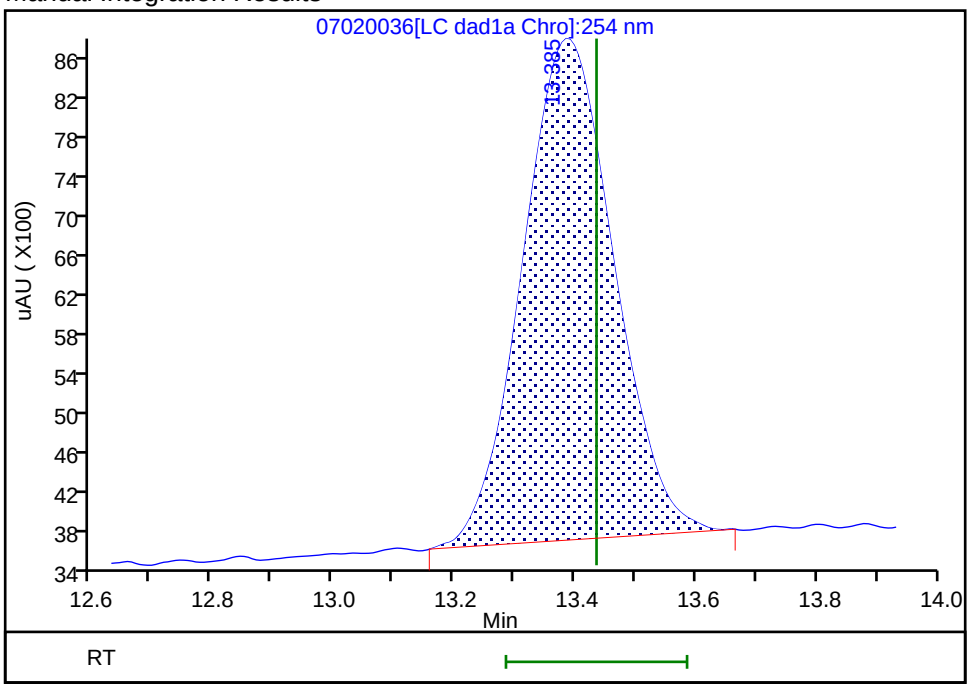
Processing Integration Results

RT: 13.39
Area: 58675
Amount: 0.205015
Amount Units: ug/ml



Manual Integration Results

RT: 13.39
Area: 53321
Amount: 0.185703
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 13:19:07

Audit Action: Manually Integrated Audit Reason: Baseline

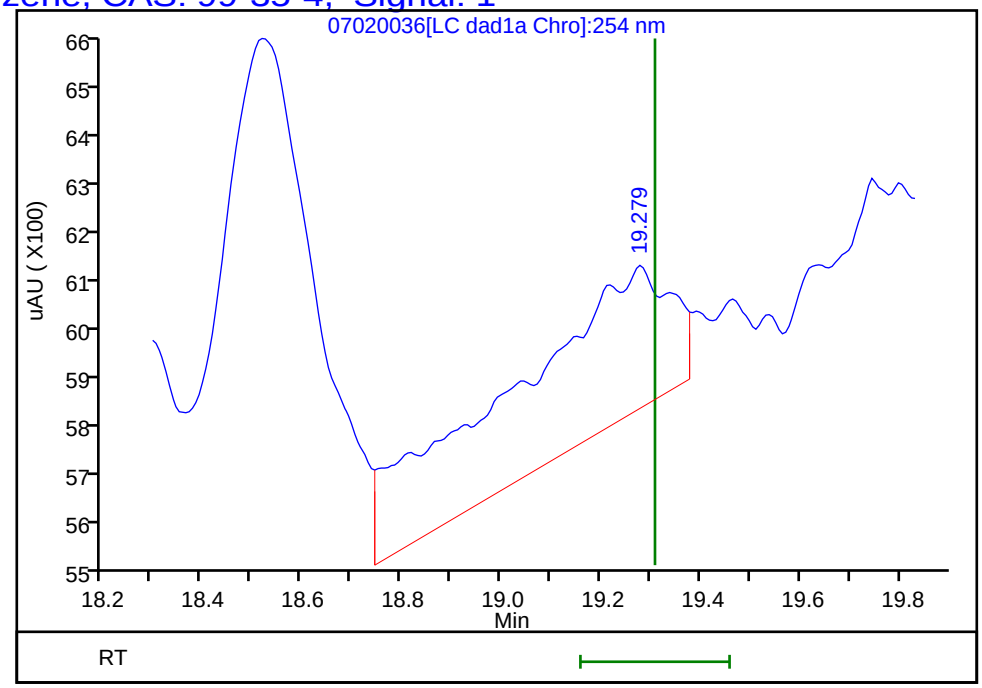
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 19.28
Response: 7571
Amount: 0.016025



Reviewer: zhangji, 03-Jul-2020 13:19:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

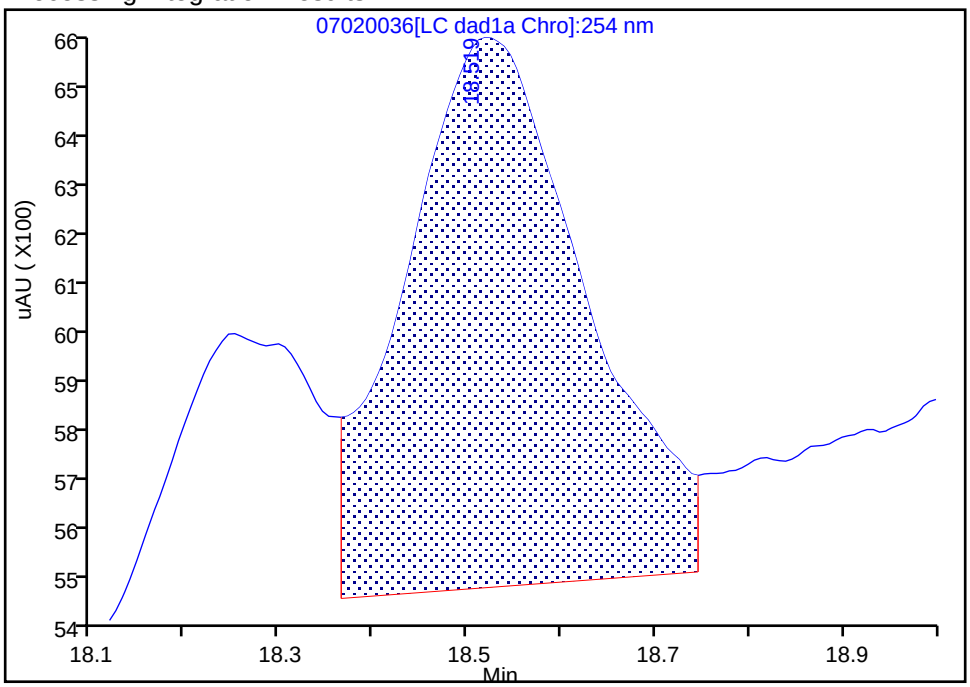
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

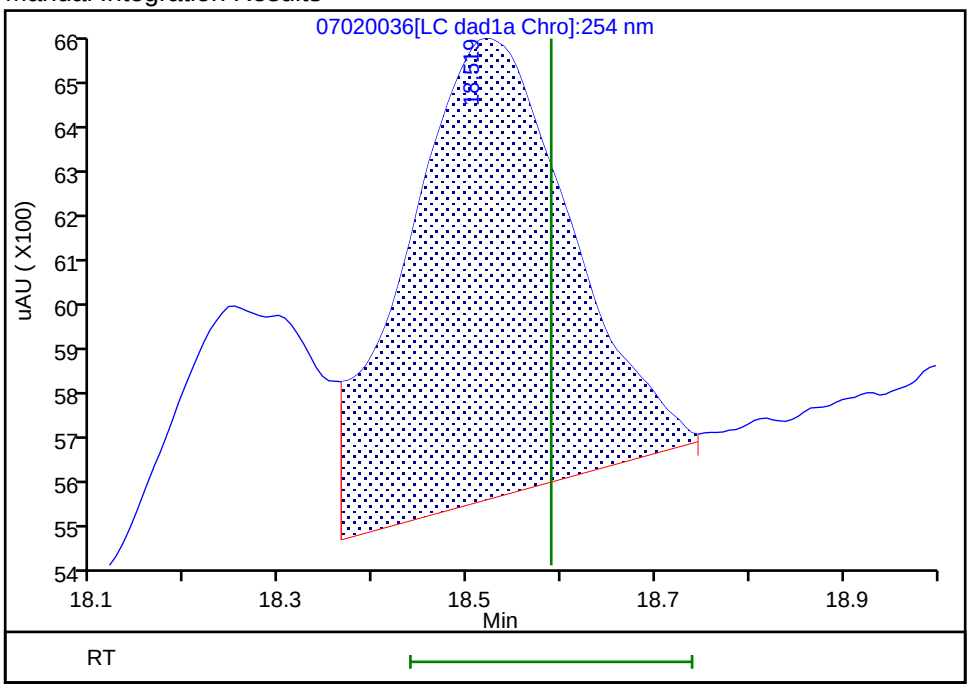
Processing Integration Results

RT: 18.52
Area: 14364
Amount: 0.030876
Amount Units: ug/ml



Manual Integration Results

RT: 18.52
Area: 12255
Amount: 0.026343
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 13:19:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

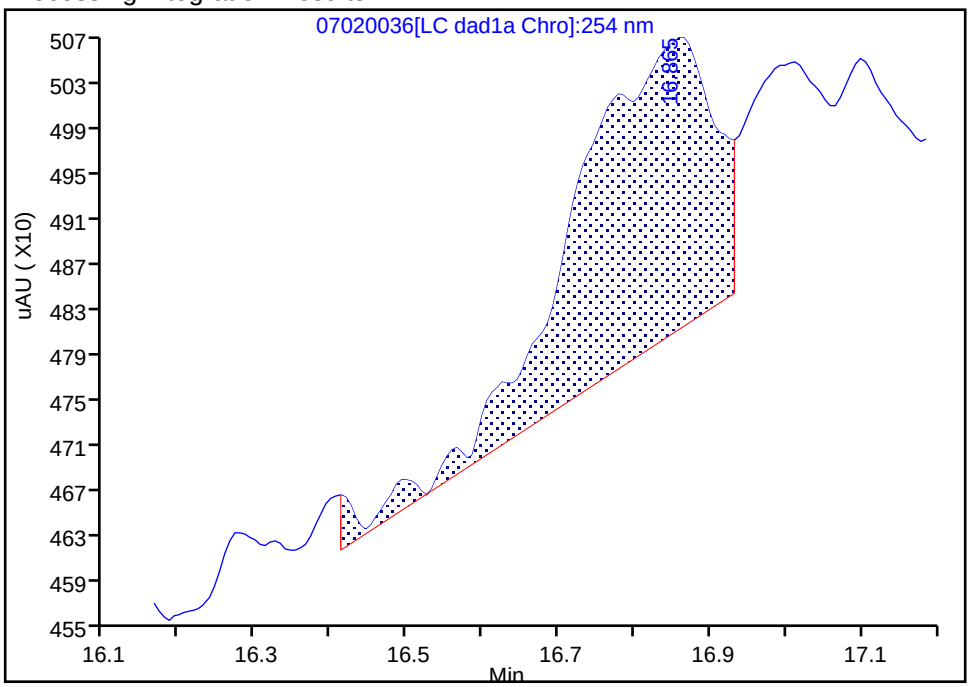
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

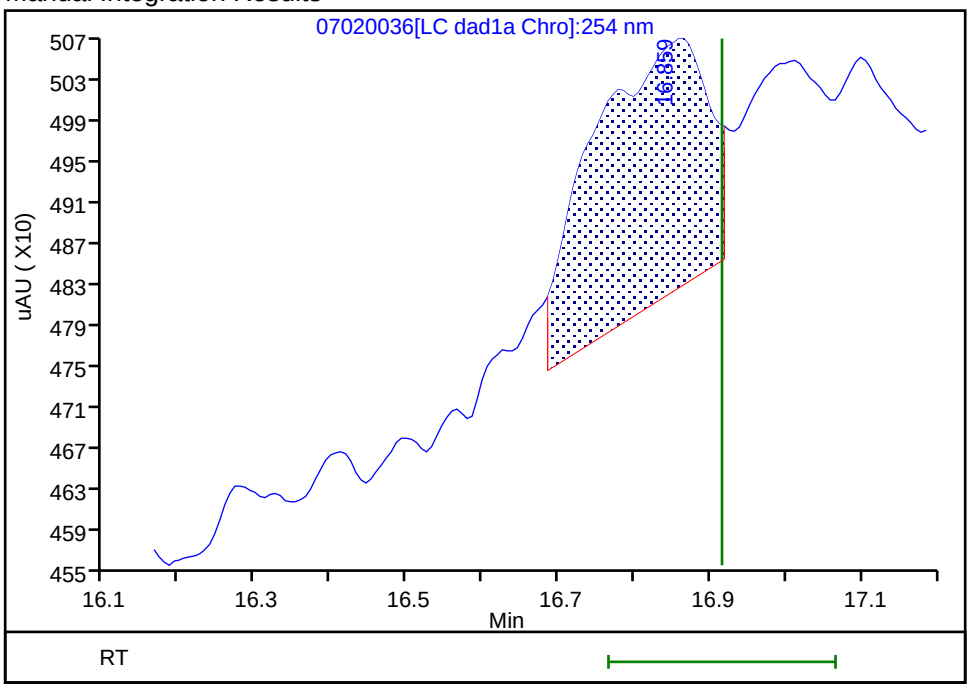
Processing Integration Results

RT: 16.87
Area: 3467
Amount: 0.012701
Amount Units: ug/ml



Manual Integration Results

RT: 16.86
Area: 2697
Amount: 0.009880
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 13:19:25

Audit Action: Split an Integrated Peak Audit Reason: Baseline

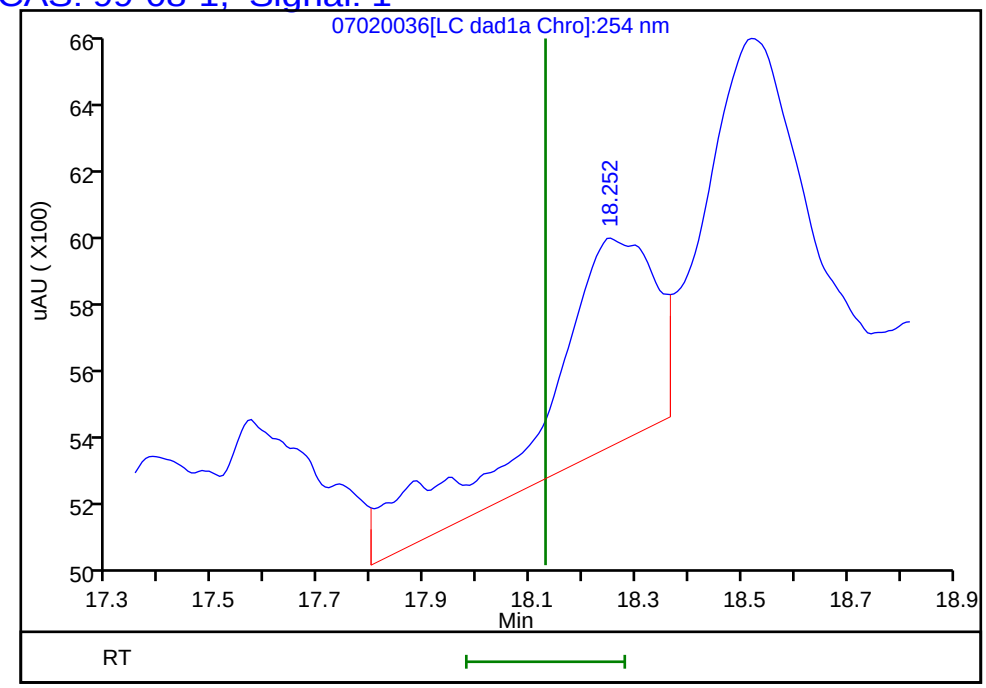
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 18.25
Response: 9049
Amount: 0.030333



Reviewer: zhangji, 03-Jul-2020 13:19:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

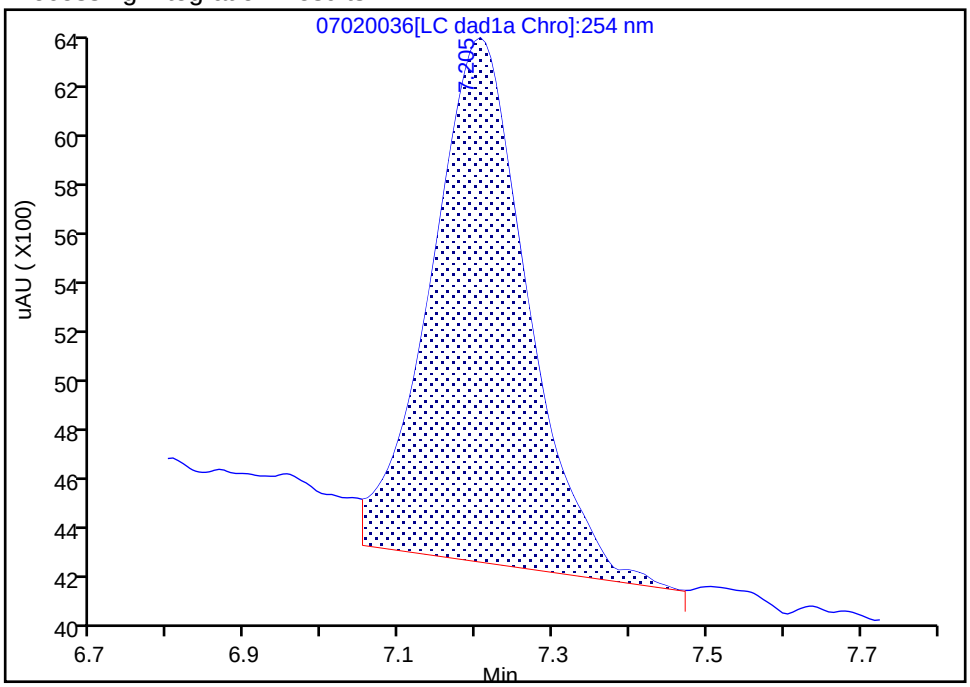
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

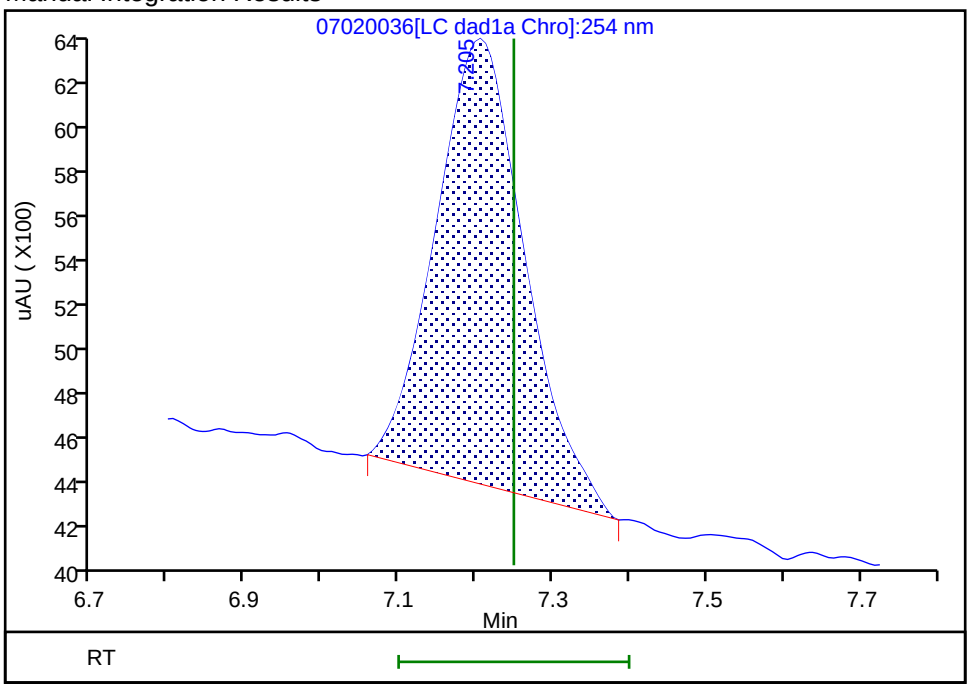
Processing Integration Results

RT: 7.21
Area: 17905
Amount: 0.071074
Amount Units: ug/ml



Manual Integration Results

RT: 7.21
Area: 15415
Amount: 0.057007
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 13:18:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

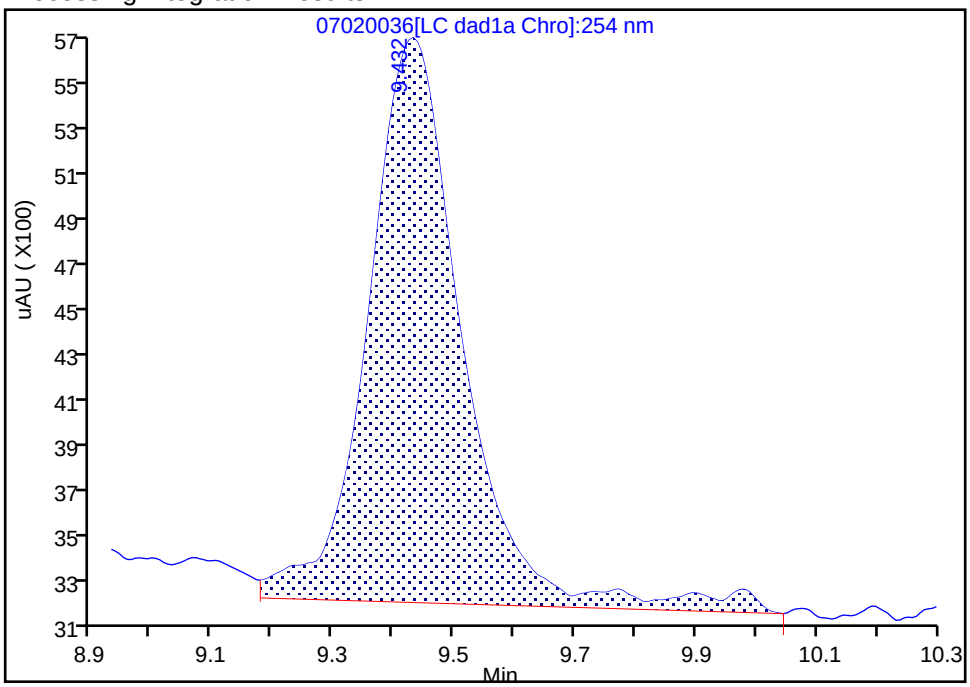
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

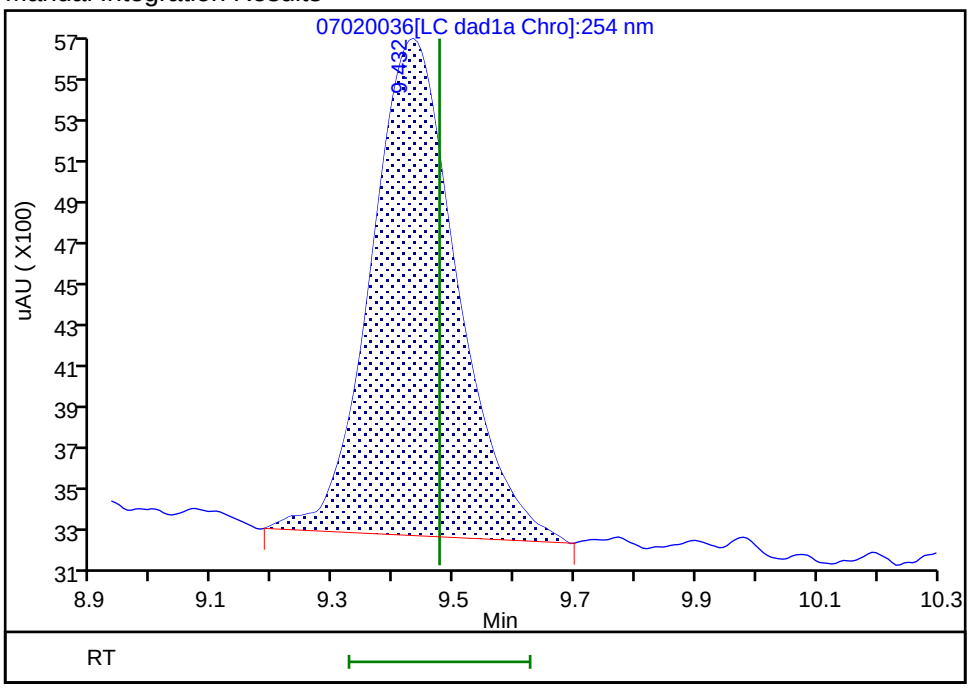
Processing Integration Results

RT: 9.43
Area: 26855
Amount: 0.109899
Amount Units: ug/ml



Manual Integration Results

RT: 9.43
Area: 23651
Amount: 0.096788
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 13:19:03

Audit Action: Manually Integrated Audit Reason: Baseline

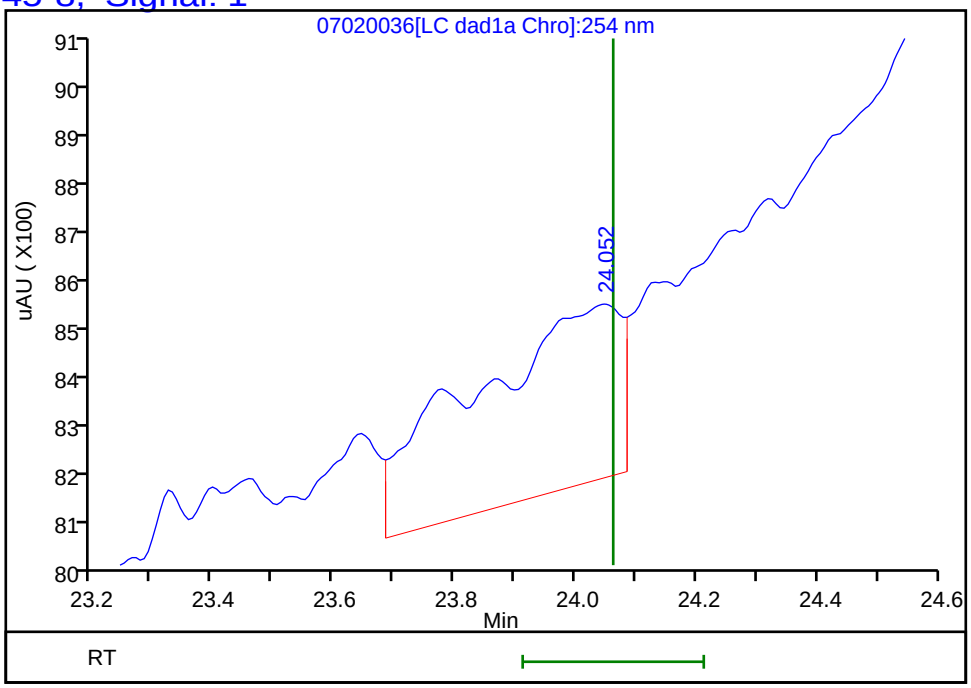
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020036.d				
Injection Date:	03-Jul-2020 12:38:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137848-A-2-A	Lab Sample ID:	280-137848-2		
Client ID:	G0090-20A				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8, Signal: 1

RT: 24.05
Response: 6391
Amount: 0.017335



Reviewer: zhangji, 03-Jul-2020 13:19:48
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Picric acid		6.322	6.331	6.308	6.300	6.267	6.235	6.195	+++++		6.150 - 6.450	6.280
HMX		6.982	6.984	6.994	6.986	6.987	6.982	6.968	6.916		6.836 - 7.136	6.975
RDX		9.095	9.184	9.181	9.173	9.173	9.162	9.148	9.076		9.023 - 9.323	9.149
Nitrobenzene		12.095	12.110	12.114	12.106	12.107	12.095	12.088	11.995		11.956 - 12.256	12.089
1,3-Dinitrobenzene		15.542	15.544	15.554	15.553	15.553	15.548	15.541	15.469		15.403 - 15.703	15.538
Nitroglycerin		15.855	15.844	15.848	15.853	15.853	15.842	15.848	15.782		15.703 - 16.003	15.841
2-Nitrotoluene		16.515	16.550	16.534	16.533	16.540	16.535	16.535	16.475		16.383 - 16.683	16.527
4-Nitrotoluene		16.795	16.837	16.828	16.820	16.820	16.808	16.815	16.715		16.670 - 16.970	16.805
4-Amino-2,6-dinitrotoluene		17.155	17.157	17.148	17.146	17.153	17.142	17.141	17.069		16.996 - 17.296	17.139
3-Nitrotoluene		17.748	17.724	17.741	17.753	17.747	17.742	17.741	17.782		17.603 - 17.903	17.747
2-Amino-4,6-dinitrotoluene		18.048	18.030	18.054	18.046	18.040	18.035	18.028	17.935		17.896 - 18.196	18.027
1,3,5-Trinitrobenzene		18.855	18.864	18.881	18.886	18.887	18.875	18.881	18.829		18.736 - 19.036	18.870
2,6-Dinitrotoluene	+++++	19.828	19.817	19.794	19.806	19.807	19.795	19.801	19.742		19.656 - 19.956	19.799
2,4-Dinitrotoluene	20.295	20.295	20.290	20.288	20.293	20.293	20.288	20.288	20.235		20.143 - 20.443	20.285
Tetryl		23.529	23.557	23.548	23.553	23.553	23.542	23.555	23.516		23.403 - 23.703	23.544
2,4,6-Trinitrotoluene		24.682	24.637	24.654	24.653	24.647	24.642	24.648	24.616		24.503 - 24.803	24.647
PETN		+++++	25.277	25.281	25.280	25.280	25.275	25.281	25.269		25.130 - 25.430	25.278
1,2-Dinitrobenzene		13.022	13.037	13.048	13.040	13.040	13.028	13.028	12.949		12.890 - 13.190	13.024

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Picric acid	194456 +++++	227320 170053	189240 169399	231700 174504	Ave		193810.153				13.5		20.0			
HMX	216260 175837	400720 186210	252920 179567	242940 183992	Lin2	5323.97093	177012.867							0.9900		0.9900
RDX	250504 220101	251440 221363	302380 217280	272330 219481	Ave		244359.838				12.7		20.0			
Nitrobenzene	422566 420057	411355 413613	566215 420302	425090 434621	Ave		439227.211				11.8		20.0			
1,3-Dinitrobenzene	687780 651230	649900 645107	741737 661018	688743 667994	Ave		674188.610				4.7		20.0			
Nitroglycerin	132151 128856	106184 127479	128084 121758	141489 128426	Ave		126803.331				7.9		20.0			
2-Nitrotoluene	252584 263350	272480 263733	320060 259206	290620 261684	Ave		272964.527				8.1		20.0			
4-Nitrotoluene	237944 205745	214531 233965	309222 235547	259042 231055	Ave		240881.296				13.2		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Amino-2,6-dinitrotoluene	316356 338348	374386 325764	441918 319452	324156 321498	Ave		345234.619				12.5		20.0			
3-Nitrotoluene	284364 280237	276523 288039	385215 286309	305554 280373	Ave		298326.800				12.1		20.0			
2-Amino-4,6-dinitrotoluene	449641 452344	413386 446609	577331 454954	473367 454056	Ave		465211.017				10.4		20.0			
1,3,5-Trinitrobenzene	473888 459025	432016 445838	531916 461195	509261 466466	Ave		472450.766				7.0		20.0			
2,6-Dinitrotoluene	+++++ 296084 293622	462869 294056	380618 294513	345209 297272	Lin2	4435.95604	289218.236							0.9990		0.9900
2,4-Dinitrotoluene	636653 610554 606816	669761 610082	743068 605778	672311 605997	Ave		640113.339				7.4		20.0			
Tetryl	368208 349575	394172 348927	403234 350489	384701 350116	Ave		368677.570				6.1		20.0			
2,4,6-Trinitrotoluene	399076 406271	460040 393653	565060 401302	430359 406644	Lin1	3158.03416	401610.023							0.9990		0.9900
PETN	135296 128081	+++++ 139434	204240 136840	132172 136576	Lin1	27366.0232	129287.517							0.9980		0.9900
1,2-Dinitrobenzene	249500 288347	337440 268080	374880 263961	306830 274673	Lin1	1839.02265	277228.024							0.9970		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Picric acid	Ave	68021	5683 118579	9462 174504	23170 +++++	48614	0.400	0.0250 0.700	0.0500 1.00	0.100 +++++	0.250
HMX	Lin2	74484	10018 125697	12646 183992	24294 439592	54065	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	88545	6286 152096	15119 219481	27233 550253	62626	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	166107	10325 295388	28424 436359	42679 1054344	106064	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
1,3-Dinitrobenzene	Ave	258559	16280 463638	37161 669330	69012 1631331	172289	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	509915	26546 852305	64042 1284256	141489 3221406	330378	4.00	0.250 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	105493	6812 181444	16003 261684	29062 658375	63146	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	93773	5374 165213	15492 231517	25956 515391	59605	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Ave	130436	9369 223840	22118 321819	32448 846716	79168	0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	115331	6920 200617	19280 280653	30586 701292	71162	0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	179358	10376 319742	28982 455872	47526 1135384	112860	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
1,3,5-Trinitrobenzene	Ave	178692	10822 323482	26649 467399	51028 1149858	118709	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Lin2	+++++ 118093	11618 206984	19107 298461	34659 736990	74317	+++++ 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,4-Dinitrotoluene	Ave	7990 245009	16811 425741	37302 608421	67500 1523108	153249	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Tetryl	Ave	139850	9874 245833	20202 350816	38547 875686	92236	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,4,6-Trinitrotoluene	Lin1	158091	11547 282035	28366 408271	43208 1019741	100168	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
PETN	Lin1	557734	+++++ 957879	102120 1365764	132172 3202028	338241	4.00	+++++ 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin1	107232	8436 184773	18744 274673	30683 720867	62375	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140007.D
Lims ID: IC FULL 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-May-2020 16:16:43 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 9
Misc. Info.: 280-0091518-007
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:54 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 14-May-2020 17:09:51

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.302	4.366	-0.064	946682	2.50	2.21	M
2 2,4-diamino-6-nitrotoluene	1	4.769	4.880	-0.111	410736	2.50	1.70	M
5 2,4,6-Trinitrophenol	1	6.096	6.300	-0.204	359637	2.50	1.86	
6 HMX	1	6.916	6.986	-0.070	439592	2.50	2.45	
8 RDX	1	9.076	9.173	-0.097	550253	2.50	2.25	
9 Nitrobenzene	1	11.995	12.106	-0.111	1054344	2.51	2.40	
$ 10 1,2-Dinitrobenzene	1	12.949	13.040	-0.091	720867	2.50	2.59	
11 3,5-Dinitroaniline	1	14.795	14.886	-0.091	1218279	2.50	2.51	a
12 1,3-Dinitrobenzene	1	15.469	15.553	-0.084	1631331	2.51	2.42	
13 Nitroglycerin	2	15.782	15.853	-0.071	3221406	25.0	25.4	
14 o-Nitrotoluene	1	16.475	16.533	-0.058	658375	2.50	2.41	a
15 p-Nitrotoluene	1	16.715	16.820	-0.105	515391	2.51	2.14	a
16 4-Amino-2,6-dinitrotoluene	1	17.069	17.146	-0.077	846716	2.50	2.45	a
17 m-Nitrotoluene	1	17.782	17.753	0.029	701292	2.50	2.35	Ma
18 2-Amino-4,6-dinitrotoluene	1	17.935	18.046	-0.111	1135384	2.51	2.44	Ma
19 1,3,5-Trinitrobenzene	1	18.829	18.886	-0.057	1149858	2.51	2.43	a
20 2,6-Dinitrotoluene	1	19.742	19.806	-0.064	736990	2.51	2.53	a
21 2,4-Dinitrotoluene	1	20.235	20.293	-0.058	1523108	2.51	2.38	a
22 Tetryl	1	23.516	23.553	-0.037	875686	2.51	2.38	a
23 2,4,6-Trinitrotoluene	1	24.616	24.653	-0.037	1019741	2.51	2.53	a
24 PETN	2	25.269	25.280	-0.011	3202028	25.0	24.6	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

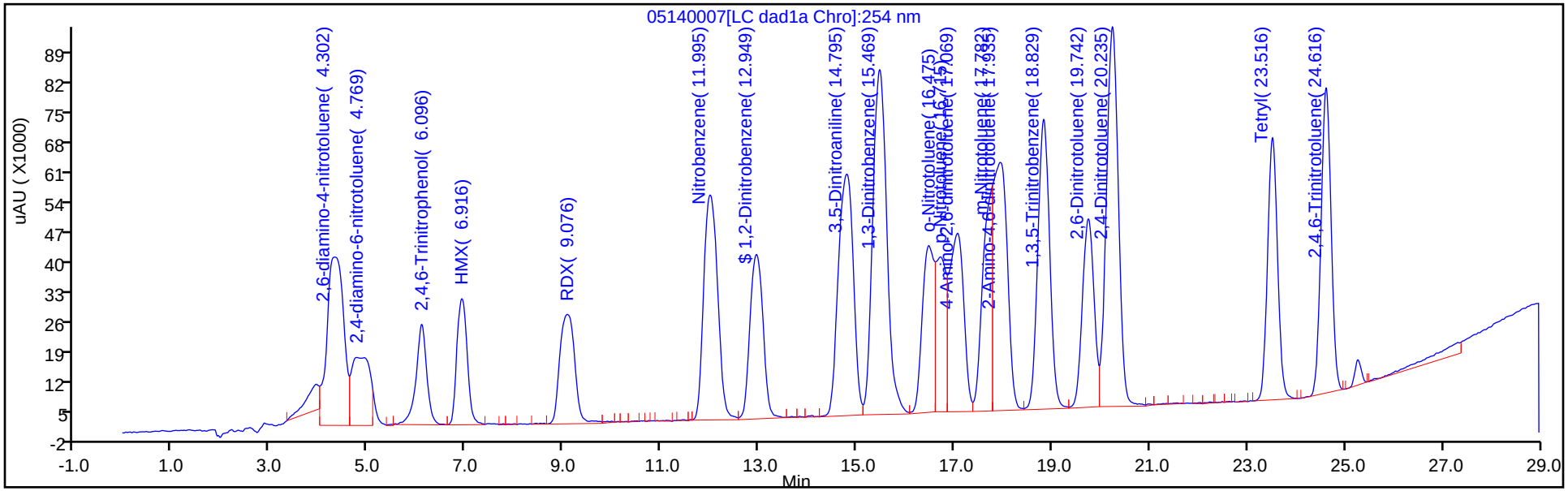
8330IntermStk_00064	Amount Added: 250.00	Units: uL
8330_ADDs_00026	Amount Added: 125.00	Units: uL

Report Date: 15-May-2020 12:00:54 Chrom Revision: 2.3 05-May-2020 17:48:18

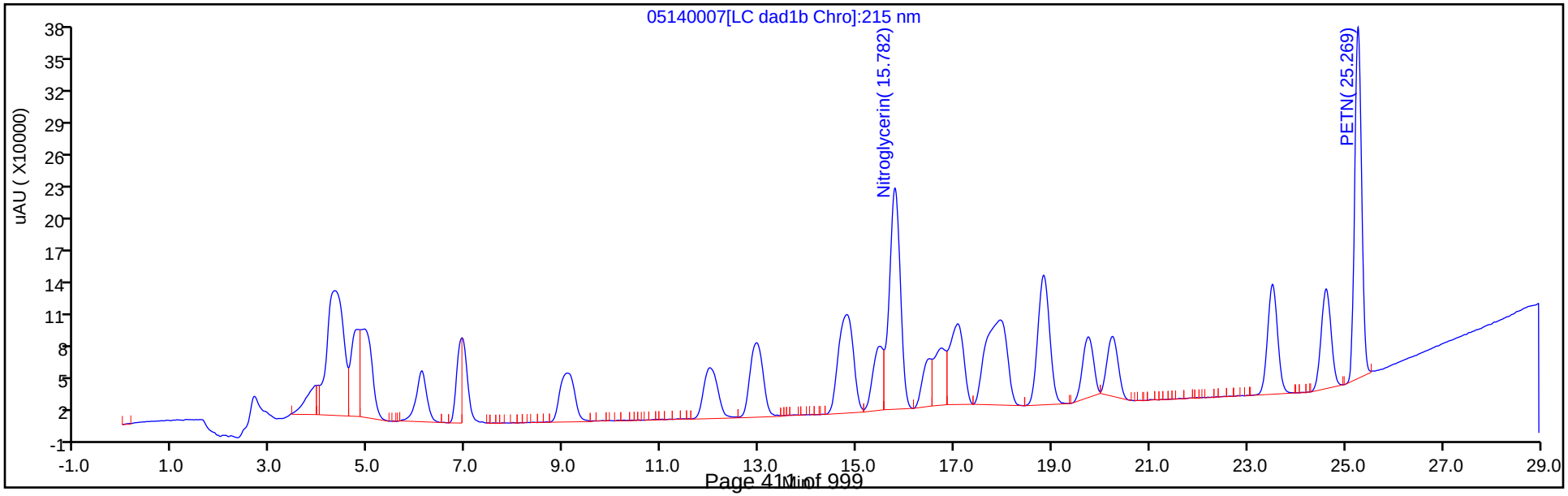
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 9			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

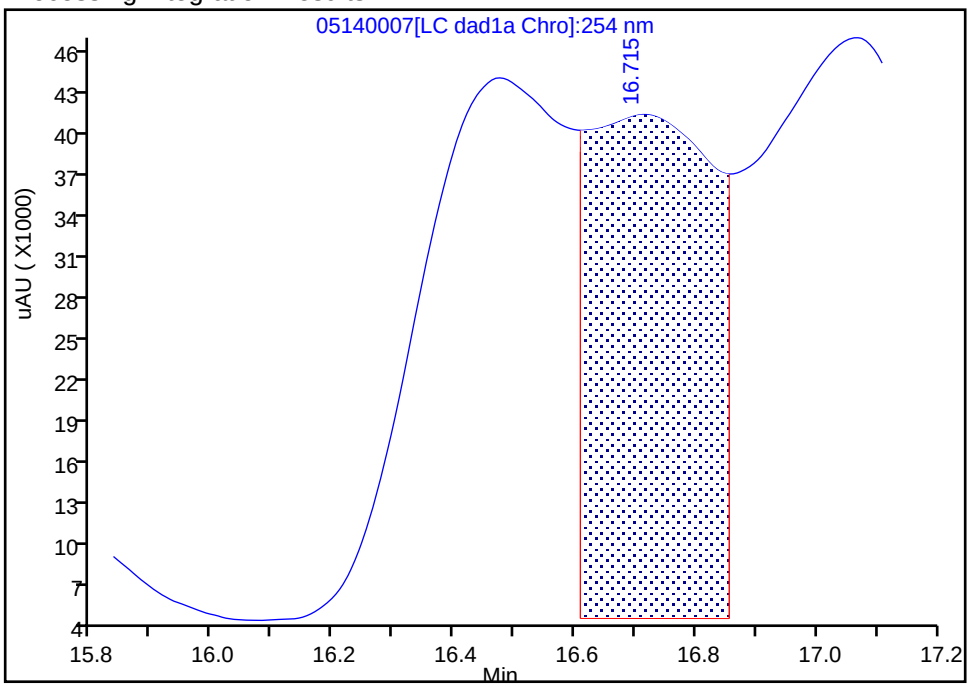
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

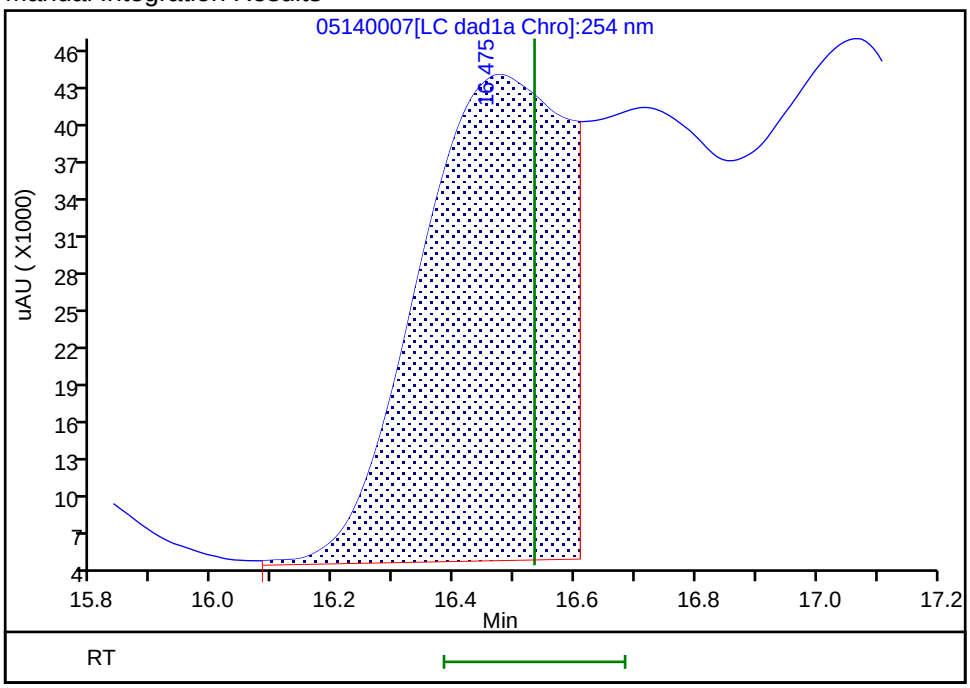
Processing Integration Results

RT: 16.72
Area: 515391
Amount: 1.955872
Amount Units: ug/ml



Manual Integration Results

RT: 16.48
Area: 658375
Amount: 2.411943
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:09:15
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

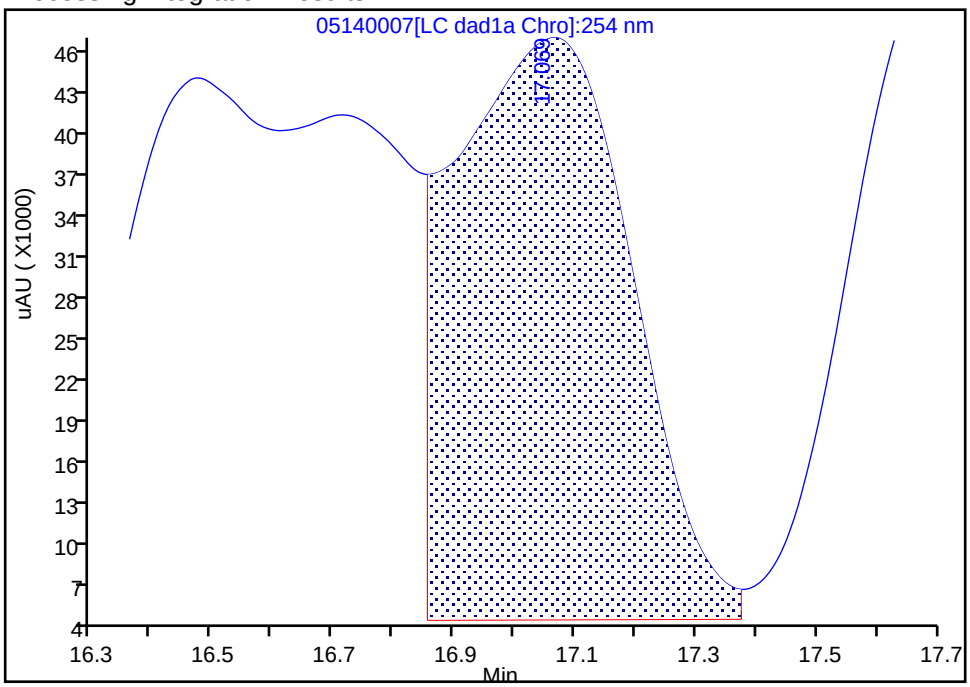
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

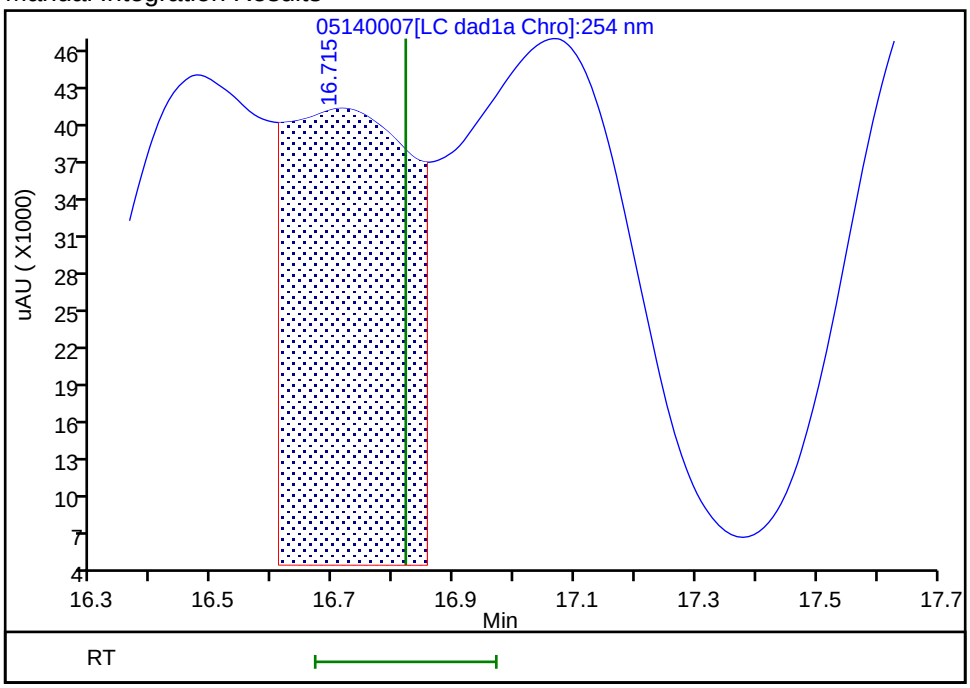
Processing Integration Results

RT: 17.07
Area: 846716
Amount: 4.099164
Amount Units: ug/ml



Manual Integration Results

RT: 16.72
Area: 515391
Amount: 2.139606
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:09:12
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

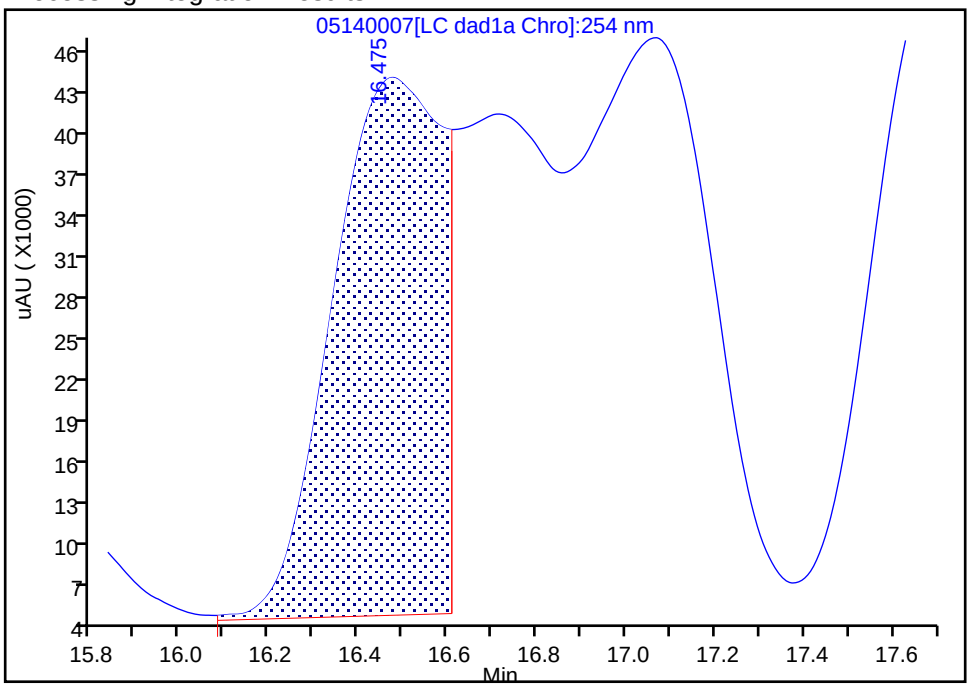
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

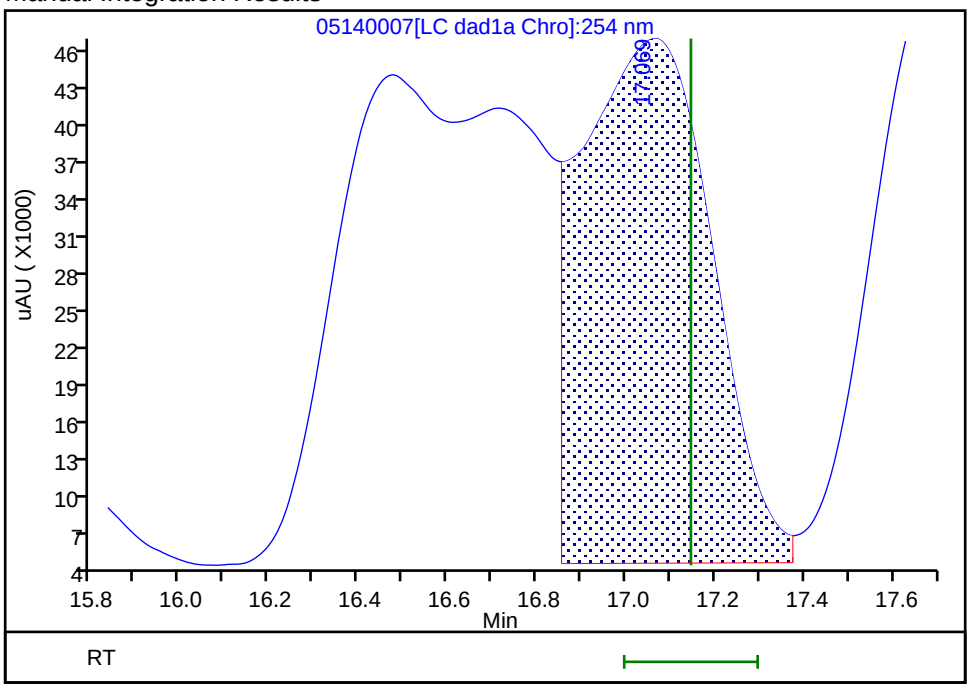
Processing Integration Results

RT: 16.48
Area: 658375
Amount: 2.145710
Amount Units: ug/ml



Manual Integration Results

RT: 17.07
Area: 846716
Amount: 2.452581
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:59
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

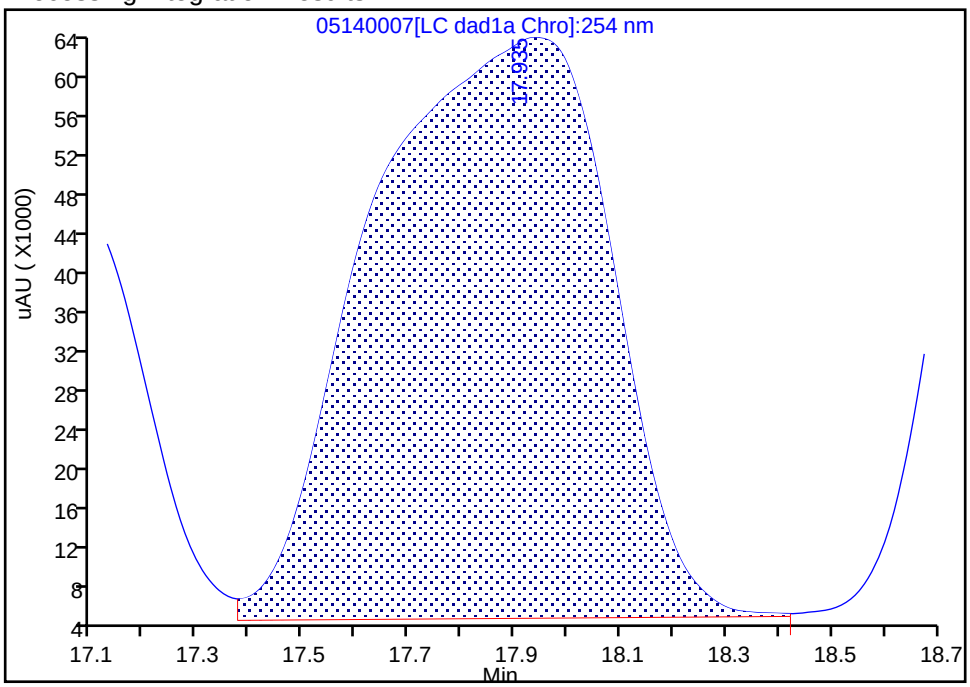
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

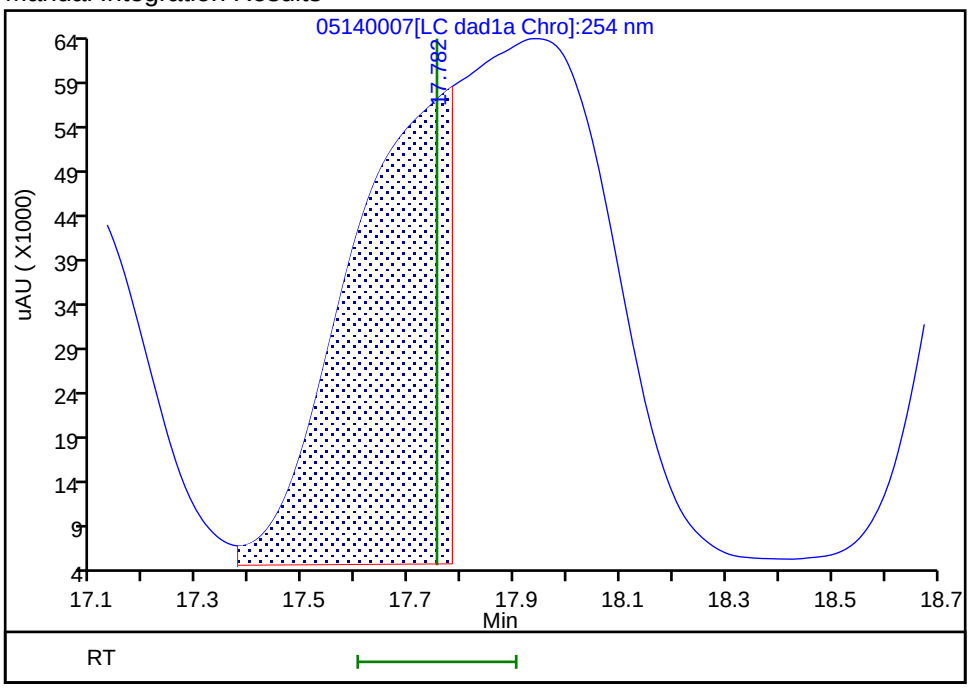
Processing Integration Results

RT: 17.94
Area: 1836650
Amount: 6.513789
Amount Units: ug/ml



Manual Integration Results

RT: 17.78
Area: 701292
Amount: 2.350751
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:45

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

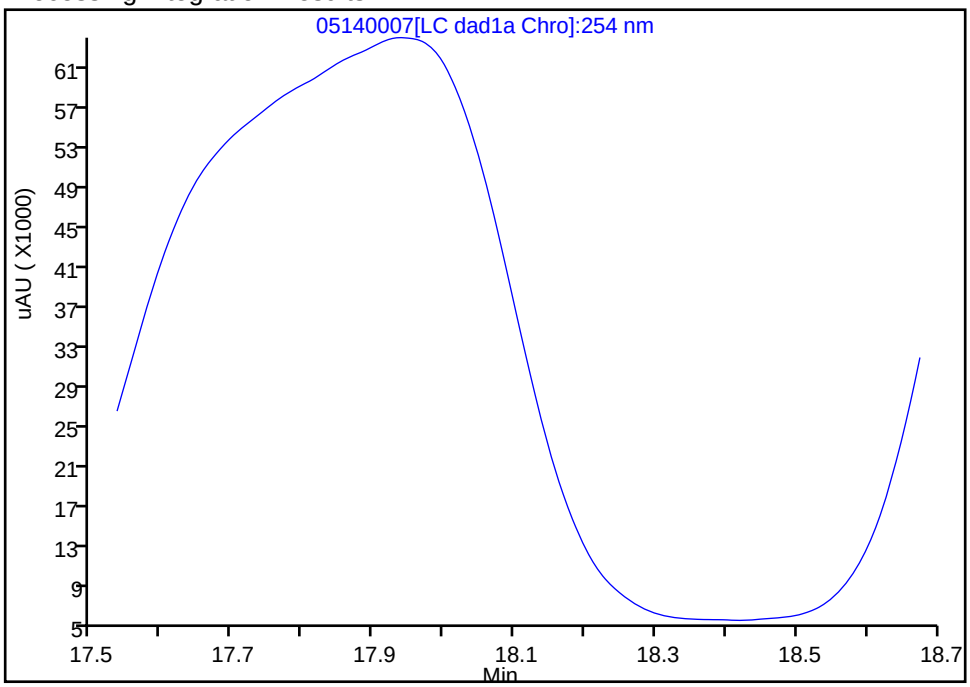
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

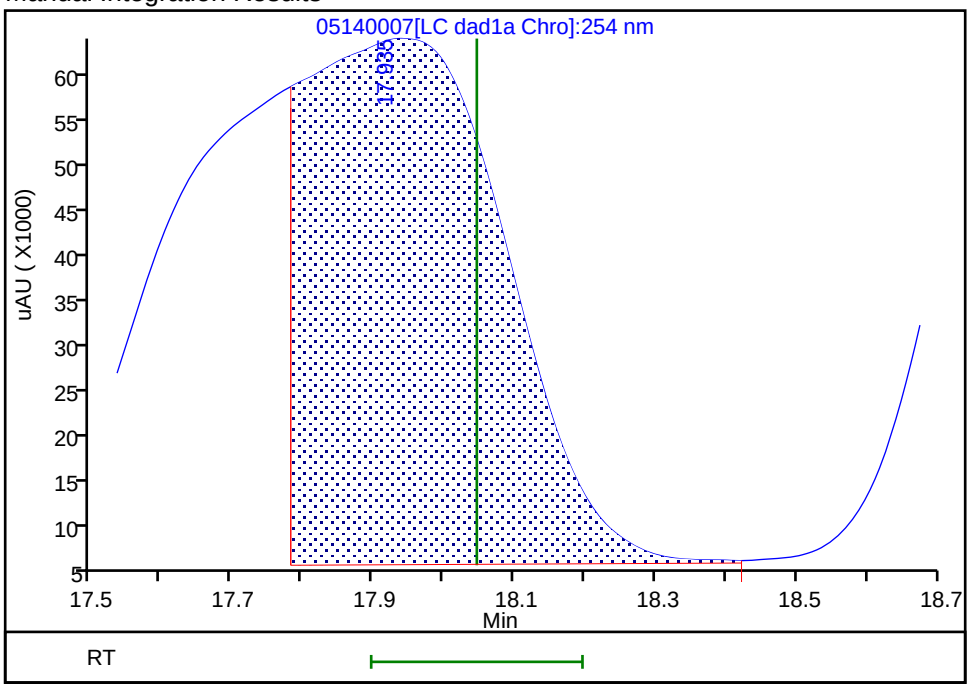
Not Detected
Expected RT: 18.05

Processing Integration Results



Manual Integration Results

RT: 17.94
Area: 1135384
Amount: 2.440578
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:40
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

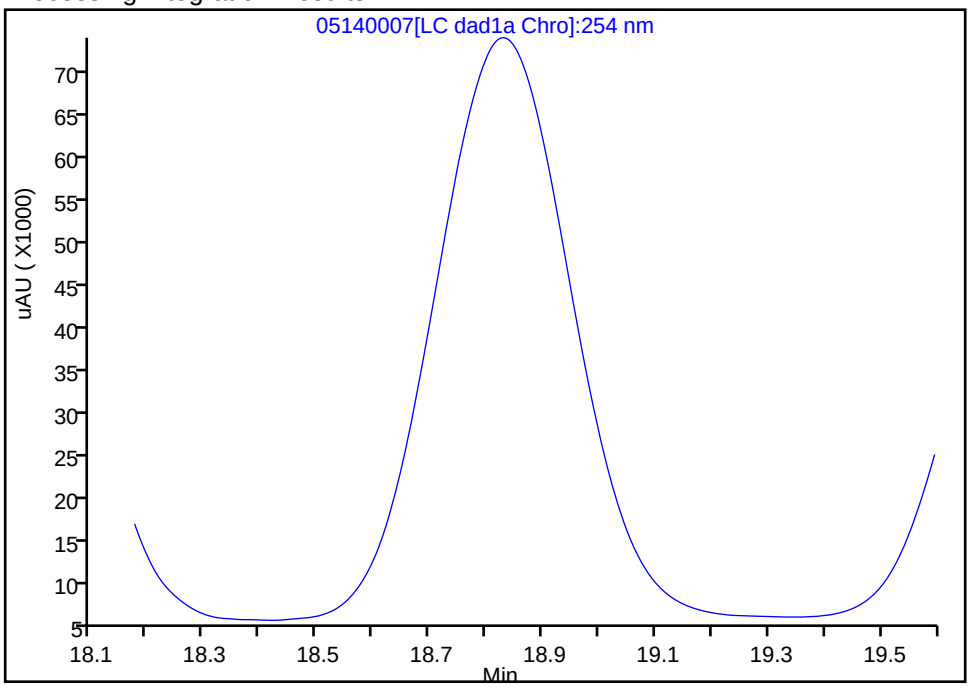
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

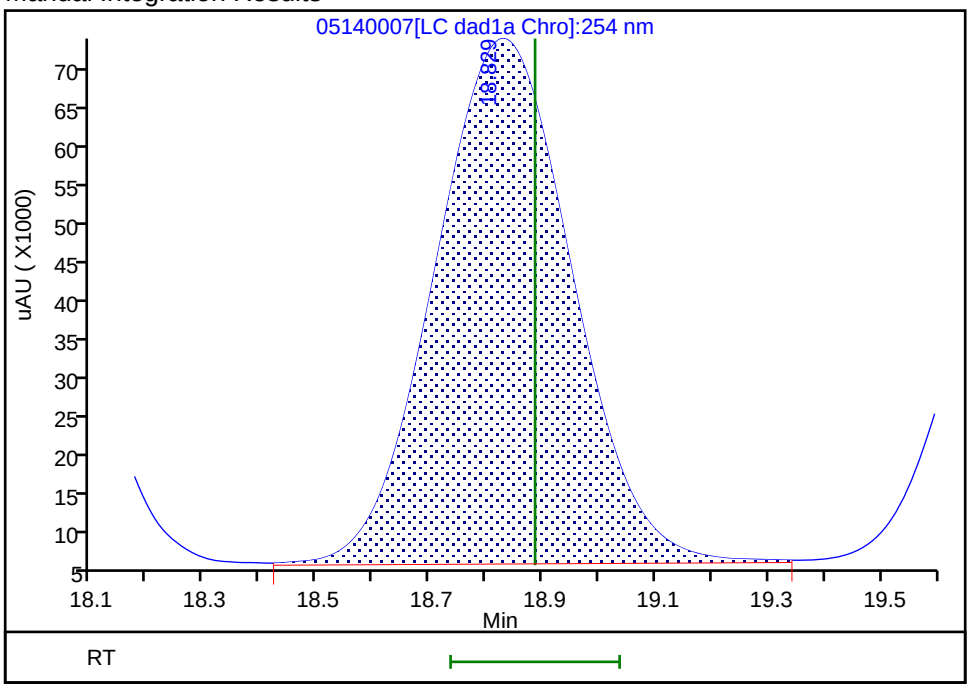
Not Detected
Expected RT: 18.89

Processing Integration Results



Manual Integration Results

RT: 18.83
Area: 1149858
Amount: 2.433816
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:26
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

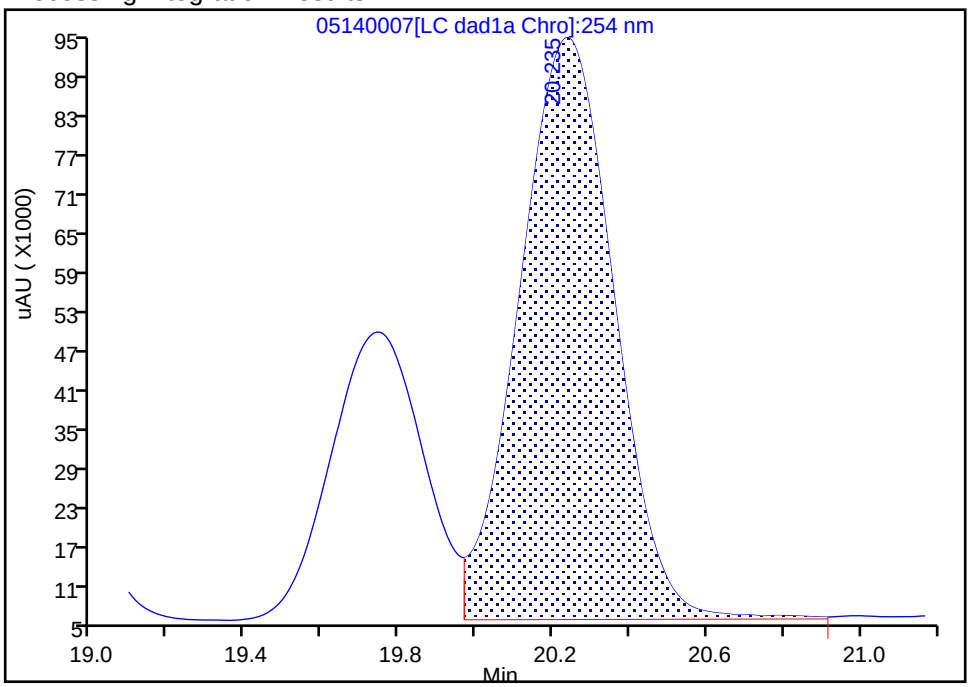
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

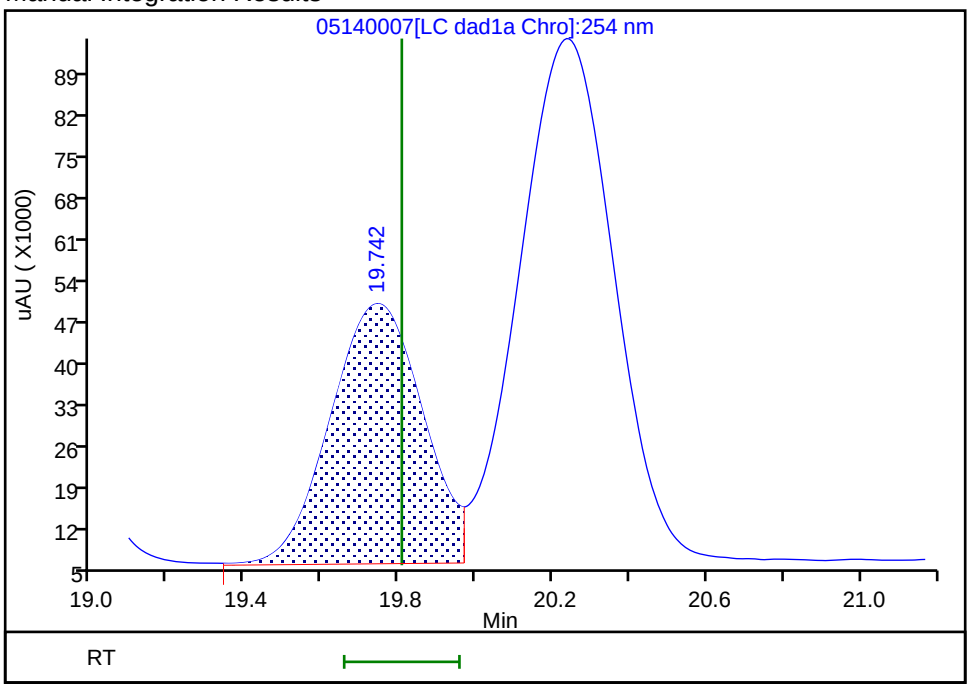
Processing Integration Results

RT: 20.24
Area: 1523108
Amount: 2.510000
Amount Units: ug/ml



Manual Integration Results

RT: 19.74
Area: 736990
Amount: 2.532876
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:23
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

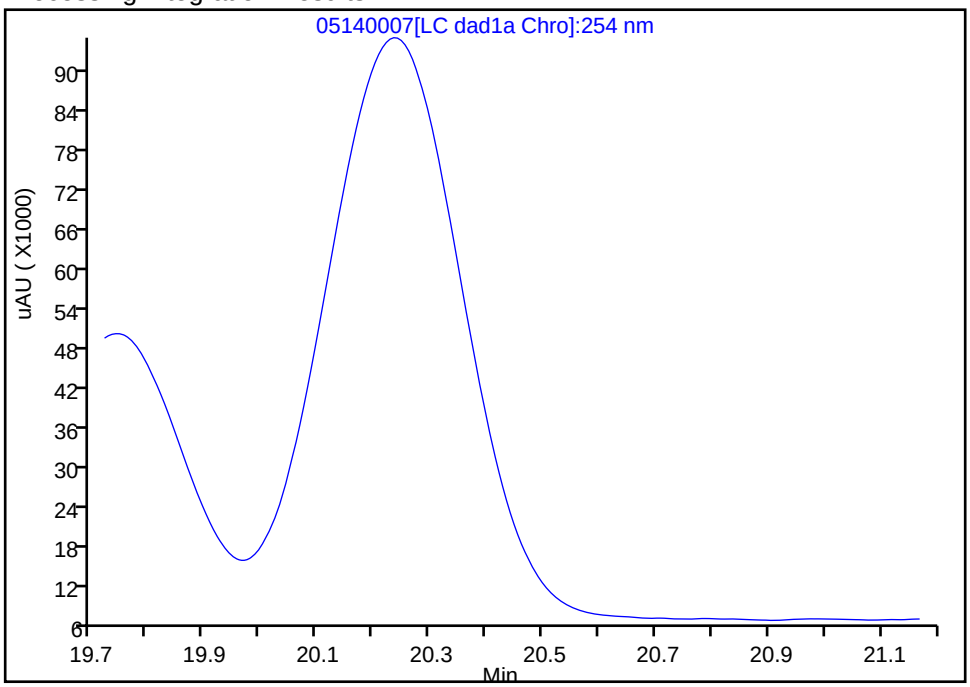
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

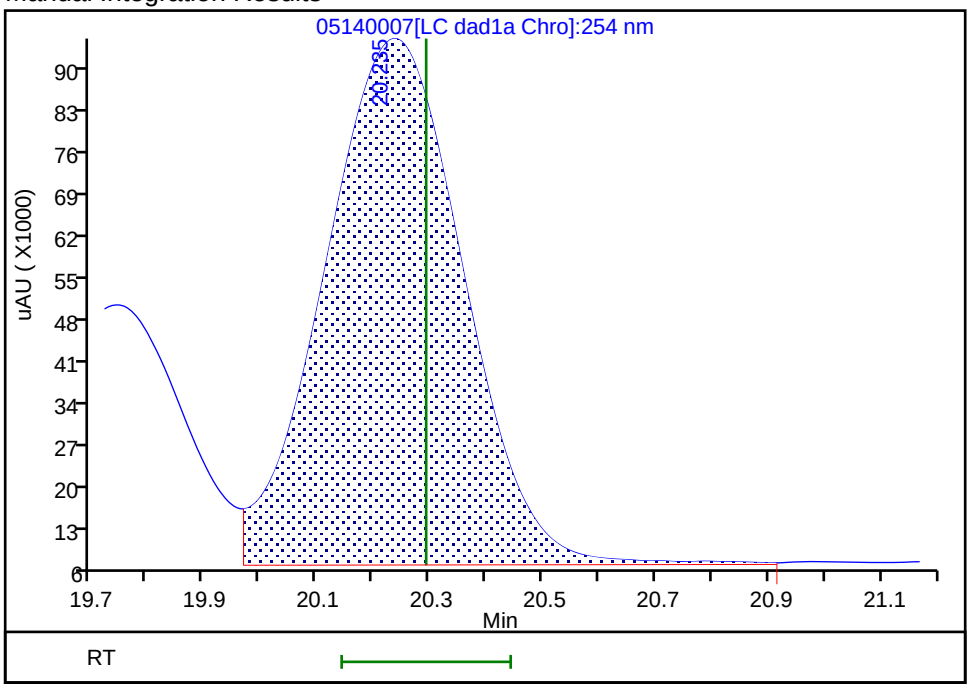
Not Detected
Expected RT: 20.29

Processing Integration Results



Manual Integration Results

RT: 20.24
Area: 1523108
Amount: 2.379435
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:20
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

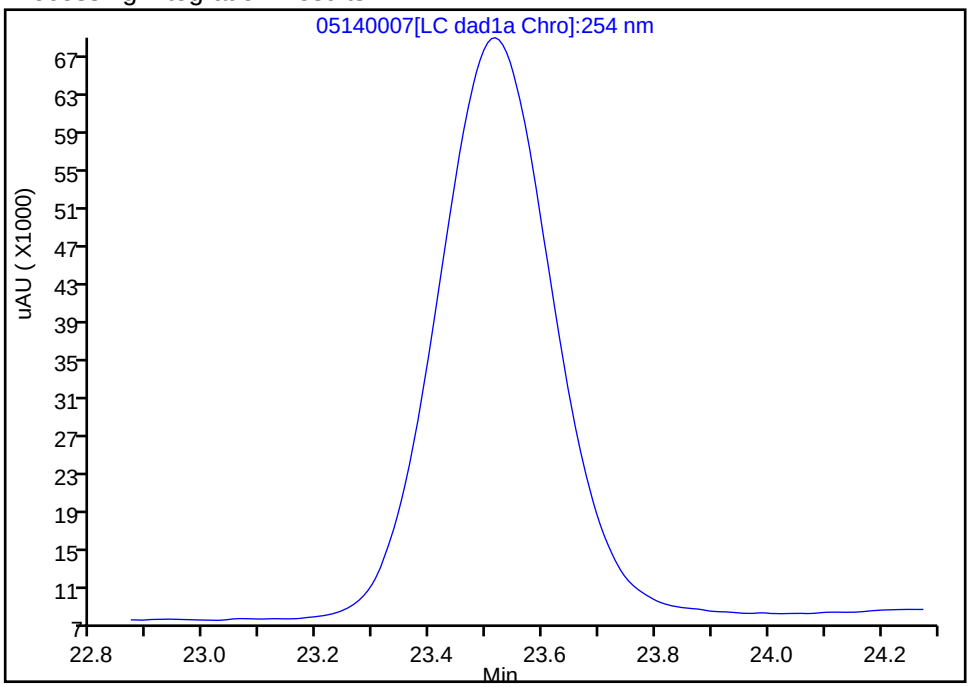
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8

Signal: 1

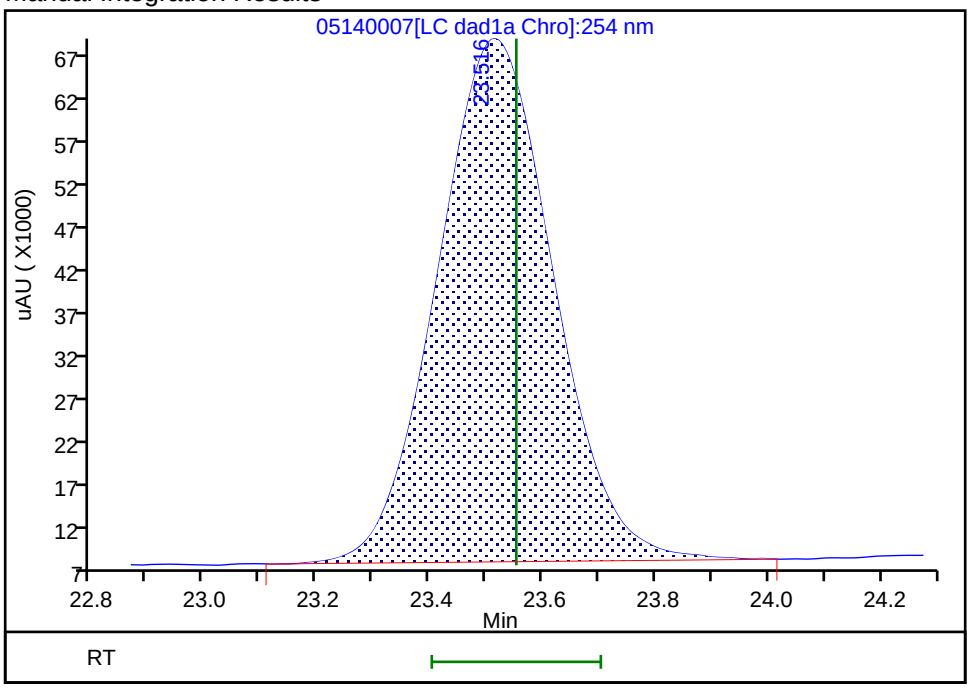
Not Detected
Expected RT: 23.55

Processing Integration Results



Manual Integration Results

RT: 23.52
Area: 875686
Amount: 2.375208
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:11
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

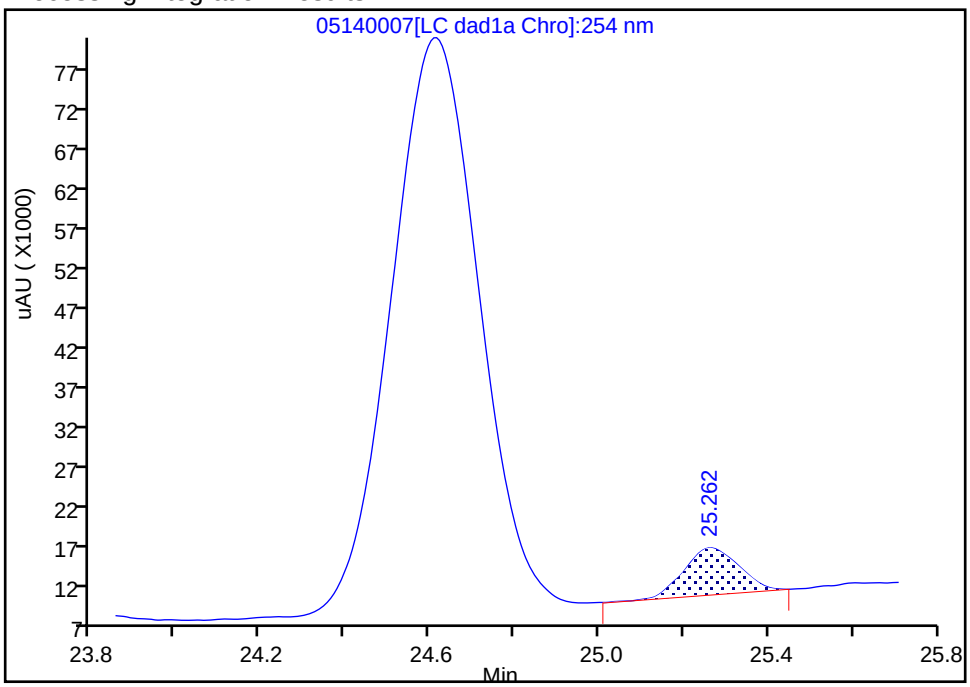
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

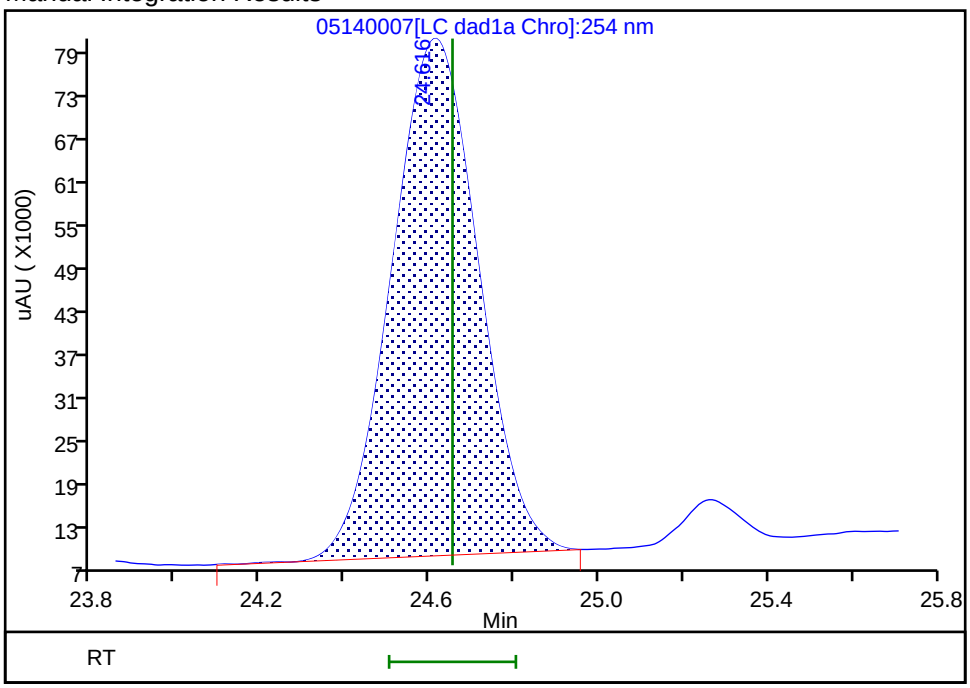
Processing Integration Results

RT: 25.26
Area: 53117
Amount: 0.098897
Amount Units: ug/ml



Manual Integration Results

RT: 24.62
Area: 1019741
Amount: 2.531269
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:08
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140008.D
Lims ID: IC FULL 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-May-2020 16:51:43 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 8
Misc. Info.: 280-0091518-008
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:55 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:19:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.315	4.366	-0.051	424864	1.00	0.9896	M
2 2,4-diamino-6-nitrotoluene	1	4.908	4.880	0.028	226554	1.00	0.9296	M
5 2,4,6-Trinitrophenol	1	6.195	6.300	-0.105	174504	1.00	0.9004	
6 HMX	1	6.968	6.986	-0.018	183992	1.00	1.01	
8 RDX	1	9.148	9.173	-0.025	219481	1.00	0.8982	
9 Nitrobenzene	1	12.088	12.106	-0.018	436359	1.00	0.99	
$ 10 1,2-Dinitrobenzene	1	13.028	13.040	-0.012	274673	1.00	0.9842	M
11 3,5-Dinitroaniline	1	14.868	14.886	-0.018	495596	1.00	1.02	
12 1,3-Dinitrobenzene	1	15.541	15.553	-0.012	669330	1.00	0.99	
13 Nitroglycerin	2	15.848	15.853	-0.005	1284256	10.0	10.1	
14 o-Nitrotoluene	1	16.535	16.533	0.002	261684	1.00	0.9587	
15 p-Nitrotoluene	1	16.815	16.820	-0.005	231517	1.00	0.9611	
16 4-Amino-2,6-dinitrotoluene	1	17.141	17.146	-0.005	321819	1.00	0.9322	
17 m-Nitrotoluene	1	17.741	17.753	-0.012	280653	1.00	0.9408	
18 2-Amino-4,6-dinitrotoluene	1	18.028	18.046	-0.018	455872	1.00	0.9799	
19 1,3,5-Trinitrobenzene	1	18.881	18.886	-0.005	467399	1.00	0.9893	
20 2,6-Dinitrotoluene	1	19.801	19.806	-0.005	298461	1.00	1.02	
21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	608421	1.00	0.9505	
22 Tetryl	1	23.555	23.553	0.002	350816	1.00	0.9516	
23 2,4,6-Trinitrotoluene	1	24.648	24.653	-0.005	408271	1.00	1.01	
24 PETN	2	25.281	25.280	0.001	1365764	10.0	10.4	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

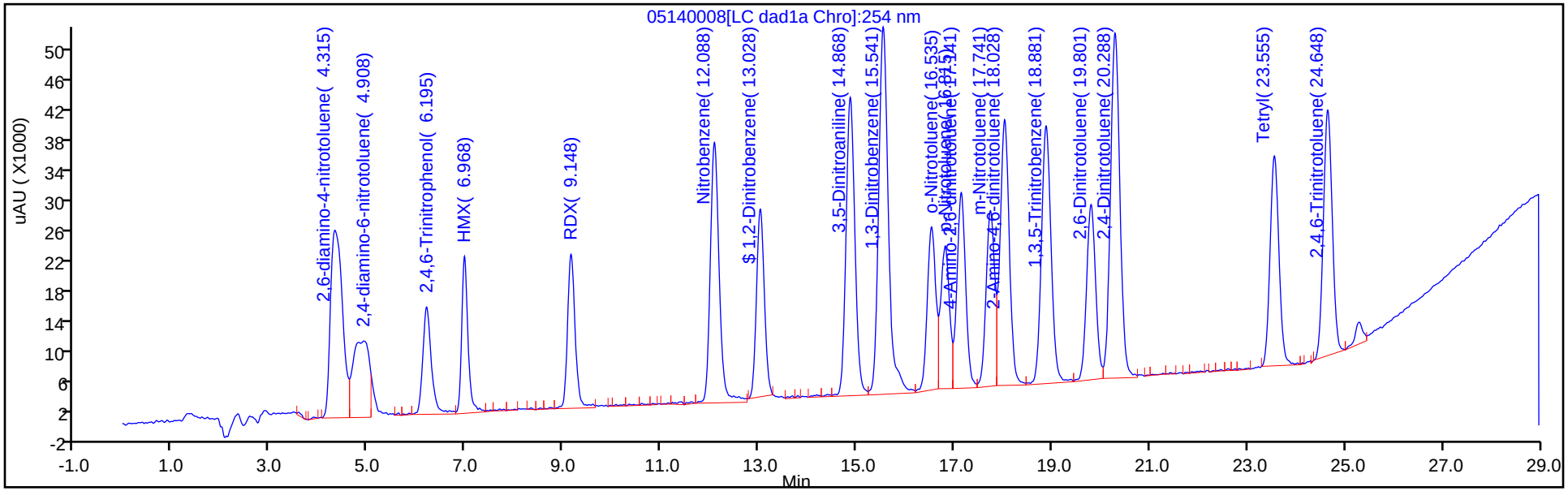
8330IntermStk_00064	Amount Added: 100.00	Units: uL
8330_ADDs_00026	Amount Added: 50.00	Units: uL

Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

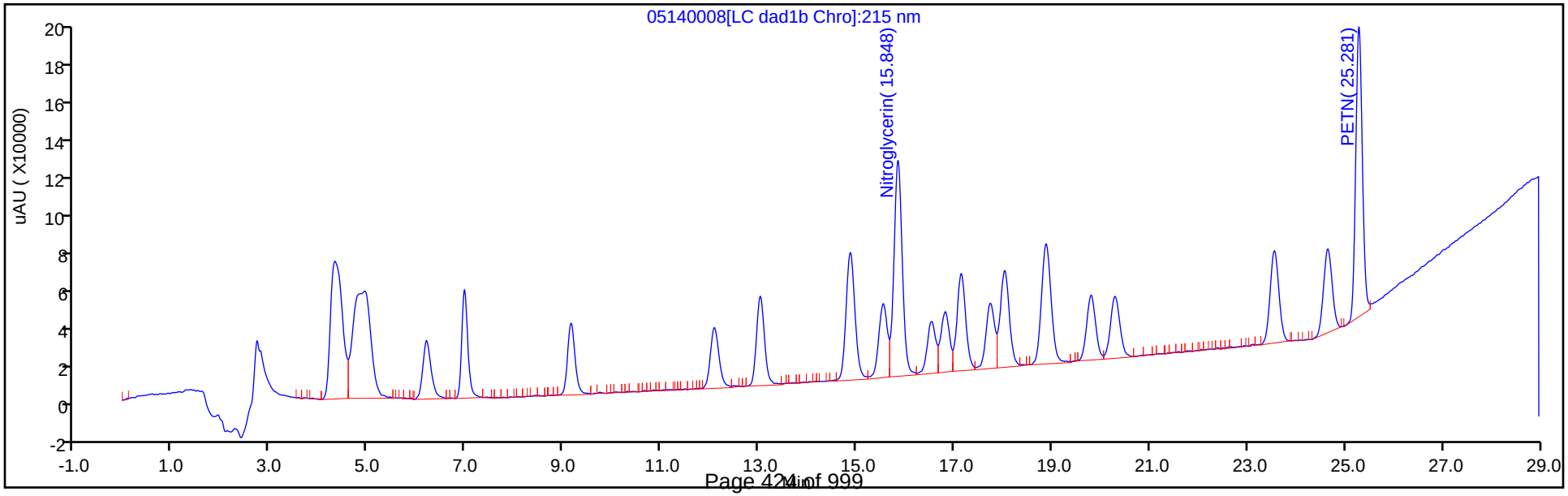
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 8			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

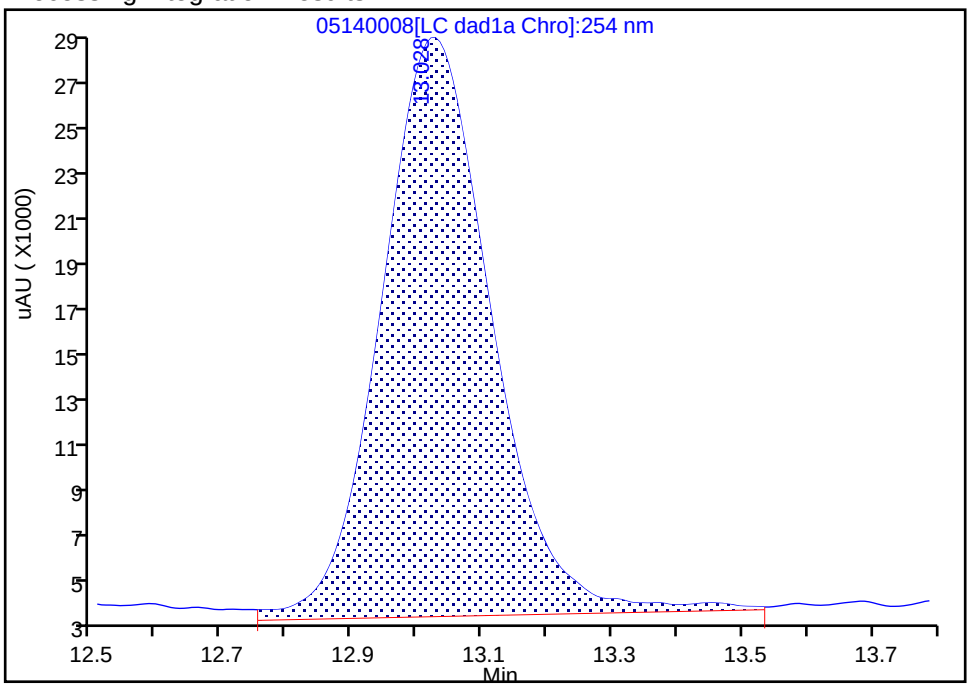
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

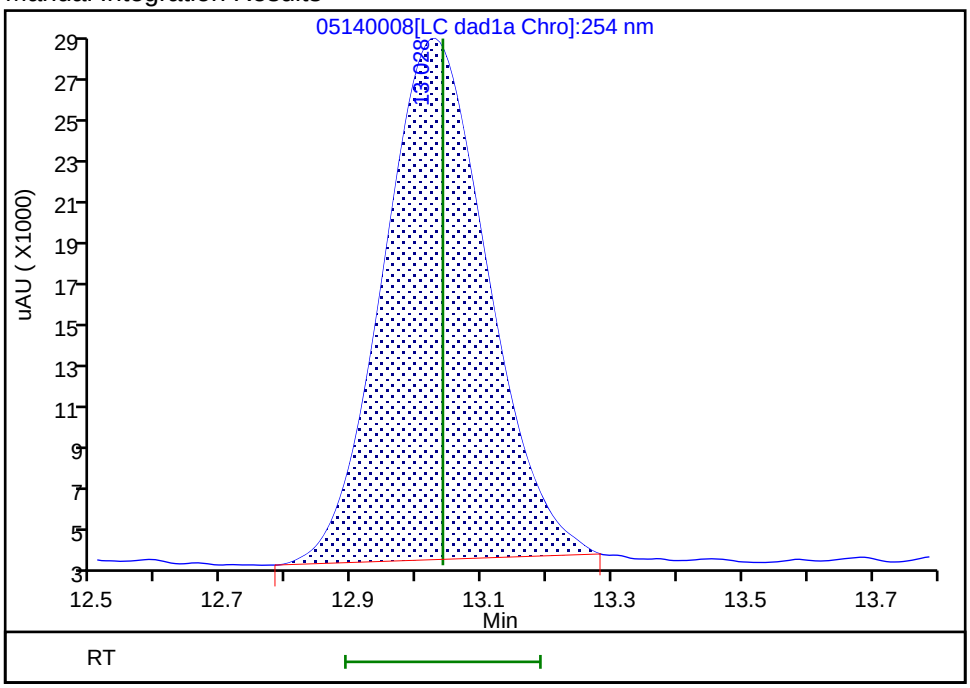
Processing Integration Results

RT: 13.03
Area: 297550
Amount: 0.923853
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 274673
Amount: 0.984150
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:32

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140009.D				
Lims ID:	IC FULL 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	14-May-2020 17:26:40	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 7				
Misc. Info.:	280-0091518-009				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:00:55	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:20:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.342	4.366	-0.024	272072	0.7000	0.6337	
2 2,4-diamino-6-nitrotoluene	1	4.915	4.880	0.035	176663	0.7000	0.7197	
5 2,4,6-Trinitrophenol	1	6.235	6.300	-0.065	118579	0.7000	0.6118	
6 HMX	1	6.982	6.986	-0.004	125697	0.7000	0.6800	
8 RDX	1	9.162	9.173	-0.011	152096	0.7000	0.6224	
9 Nitrobenzene	1	12.095	12.106	-0.011	295388	0.7028	0.6725	
$ 10 1,2-Dinitrobenzene	1	13.028	13.040	-0.012	184773	0.7000	0.6599	M
11 3,5-Dinitroaniline	1	14.875	14.886	-0.011	320559	0.7000	0.6552	
12 1,3-Dinitrobenzene	1	15.548	15.553	-0.005	463638	0.7014	0.6877	
13 Nitroglycerin	2	15.842	15.853	-0.011	852305	7.00	6.72	
14 o-Nitrotoluene	1	16.535	16.533	0.002	181444	0.7000	0.6647	
15 p-Nitrotoluene	1	16.808	16.820	-0.012	165213	0.7014	0.6859	
16 4-Amino-2,6-dinitrotoluene	1	17.142	17.146	-0.004	223840	0.7007	0.6484	
17 m-Nitrotoluene	1	17.742	17.753	-0.011	200617	0.7007	0.6725	
18 2-Amino-4,6-dinitrotoluene	1	18.035	18.046	-0.011	319742	0.7028	0.6873	
19 1,3,5-Trinitrobenzene	1	18.875	18.886	-0.011	323482	0.7014	0.6847	
20 2,6-Dinitrotoluene	1	19.795	19.806	-0.011	206984	0.7028	0.7003	
21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	425741	0.7028	0.6651	
22 Tetryl	1	23.542	23.553	-0.011	245833	0.7014	0.6668	
23 2,4,6-Trinitrotoluene	1	24.642	24.653	-0.011	282035	0.7028	0.6944	
24 PETN	2	25.275	25.280	-0.005	957879	7.00	7.20	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

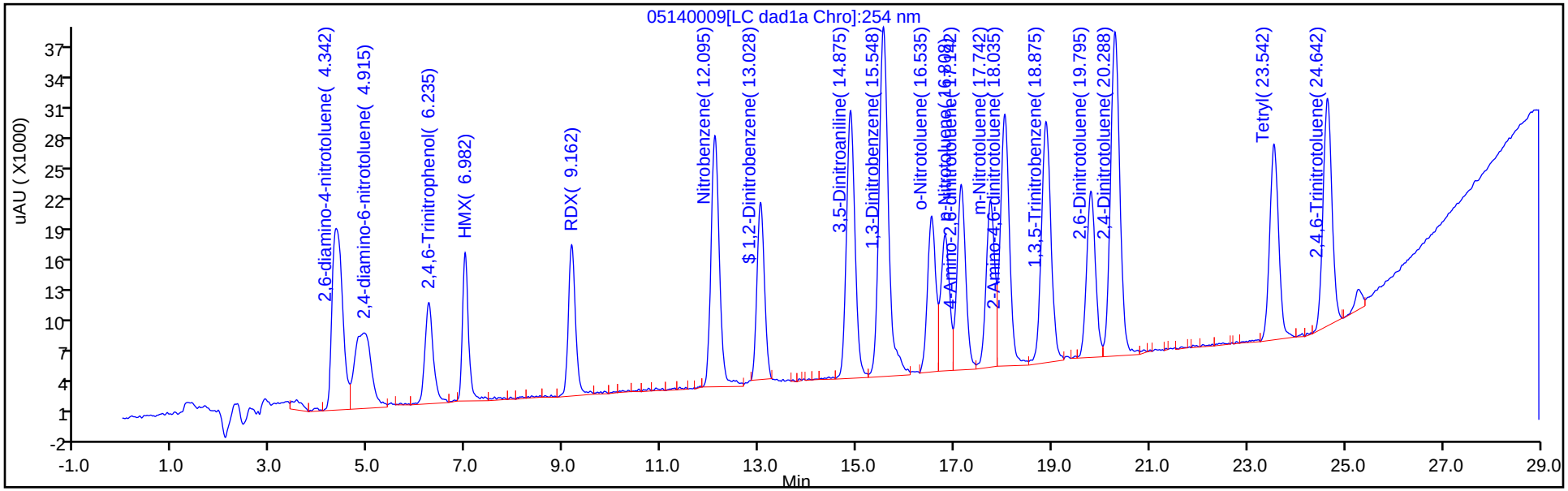
8330_ADDs_00026	Amount Added:	35.00	Units: uL
8330IntermStk_00064	Amount Added:	70.00	Units: uL

Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

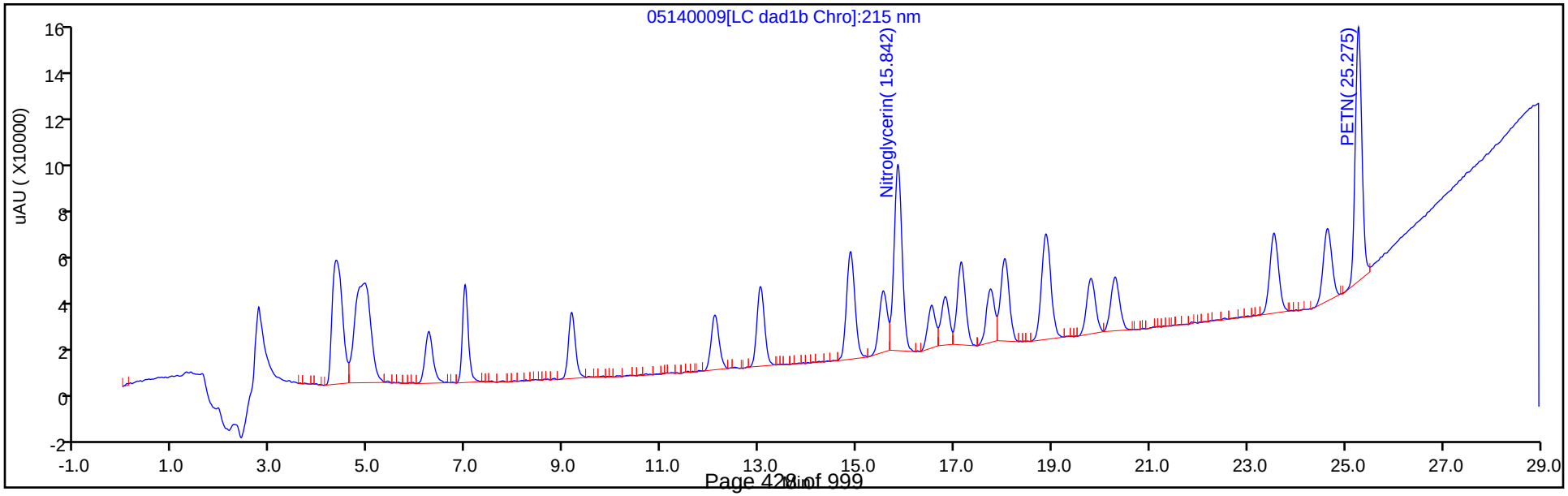
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d				
Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

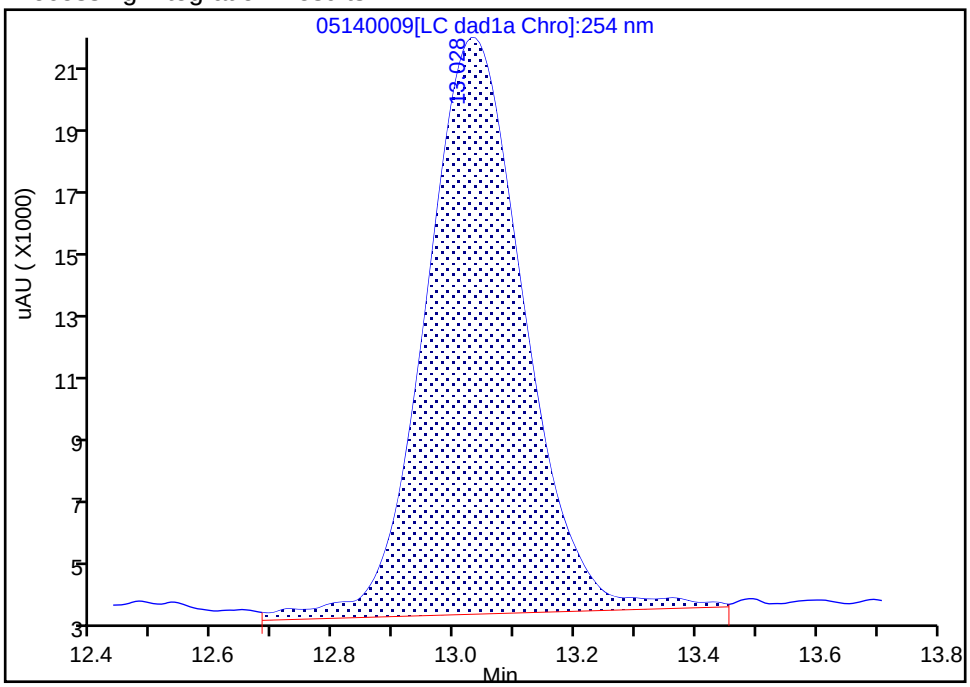
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d				
Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

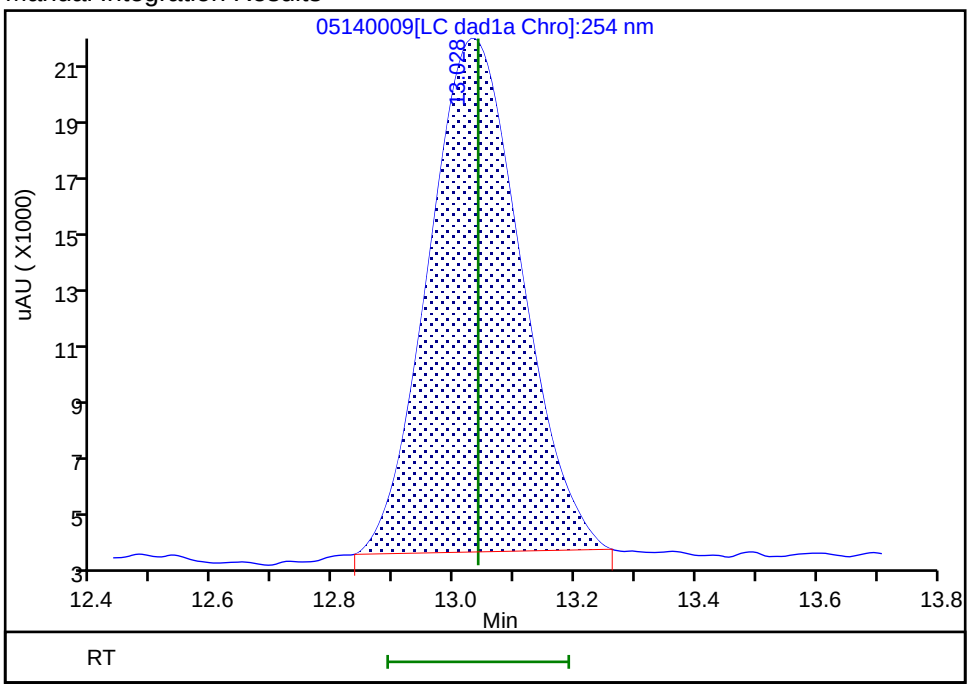
Processing Integration Results

RT: 13.03
Area: 203295
Amount: 0.637674
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 184773
Amount: 0.659868
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140010.D
Lims ID: IC FULL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-May-2020 18:01:41 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 6
Misc. Info.: 280-0091518-010
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:52:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.347	4.366	-0.019	161291	0.4000	0.3757	M
2 2,4-diamino-6-nitrotoluene	1	4.940	4.880	0.060	100170	0.4000	0.3980	M
5 2,4,6-Trinitrophenol	1	6.267	6.300	-0.033	68021	0.4000	0.3510	a
6 HMX	1	6.987	6.986	0.001	74484	0.4000	0.3907	
8 RDX	1	9.173	9.173	0.000	88545	0.4000	0.3624	
9 Nitrobenzene	1	12.107	12.106	0.001	166107	0.4016	0.3782	
$ 10 1,2-Dinitrobenzene	1	13.040	13.040	0.000	107232	0.4000	0.3802	M
11 3,5-Dinitroaniline	1	14.887	14.886	0.001	190015	0.4000	0.3861	M
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	258559	0.4008	0.3835	M
13 Nitroglycerin	2	15.853	15.853	0.000	509915	4.00	4.02	
14 o-Nitrotoluene	1	16.540	16.533	0.007	105493	0.4000	0.3865	M
15 p-Nitrotoluene	1	16.820	16.820	0.000	93773	0.4008	0.3893	M
16 4-Amino-2,6-dinitrotoluene	1	17.153	17.146	0.007	130436	0.4004	0.3778	M
17 m-Nitrotoluene	1	17.747	17.753	-0.006	115331	0.4004	0.3866	M
18 2-Amino-4,6-dinitrotoluene	1	18.040	18.046	-0.006	179358	0.4016	0.3855	M
19 1,3,5-Trinitrobenzene	1	18.887	18.886	0.001	178692	0.4008	0.3782	
20 2,6-Dinitrotoluene	1	19.807	19.806	0.001	118093	0.4016	0.3930	M
21 2,4-Dinitrotoluene	1	20.293	20.293	0.000	245009	0.4016	0.3828	M
22 Tetryl	1	23.553	23.553	0.000	139850	0.4008	0.3793	
23 2,4,6-Trinitrotoluene	1	24.647	24.653	-0.006	158091	0.4016	0.3858	
24 PETN	2	25.280	25.280	0.000	557734	4.00	4.10	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

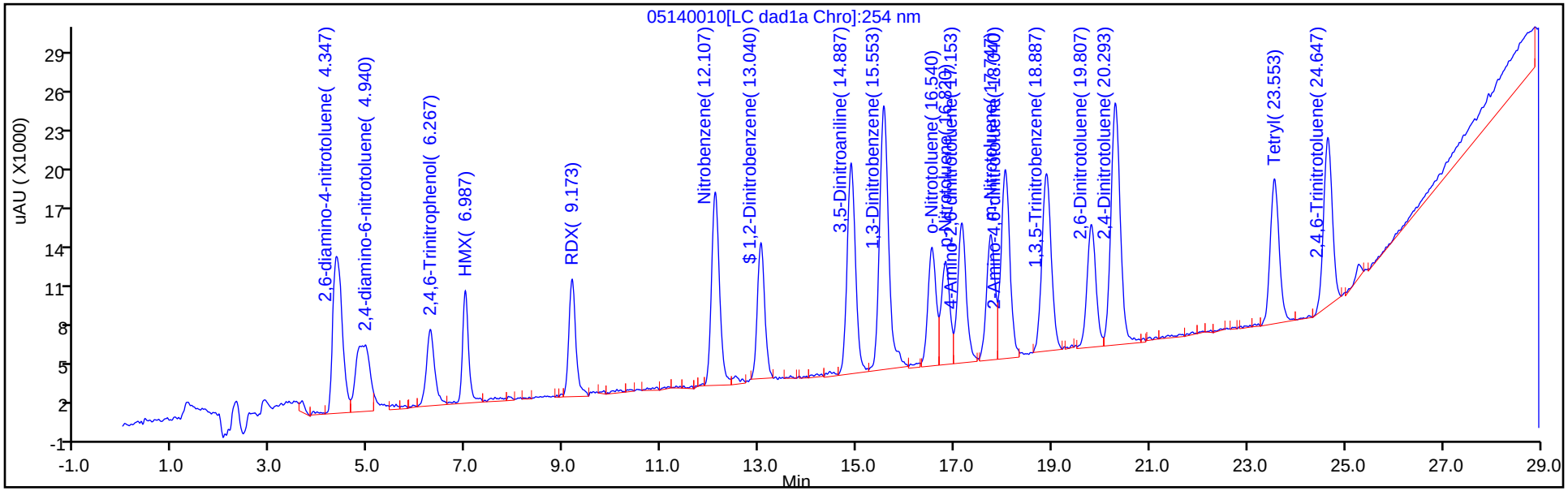
8330IntermStk_00064	Amount Added: 40.00	Units: uL
8330_ADDs_00026	Amount Added: 20.00	Units: uL

Report Date: 15-May-2020 12:00:56 Chrom Revision: 2.3 05-May-2020 17:48:18

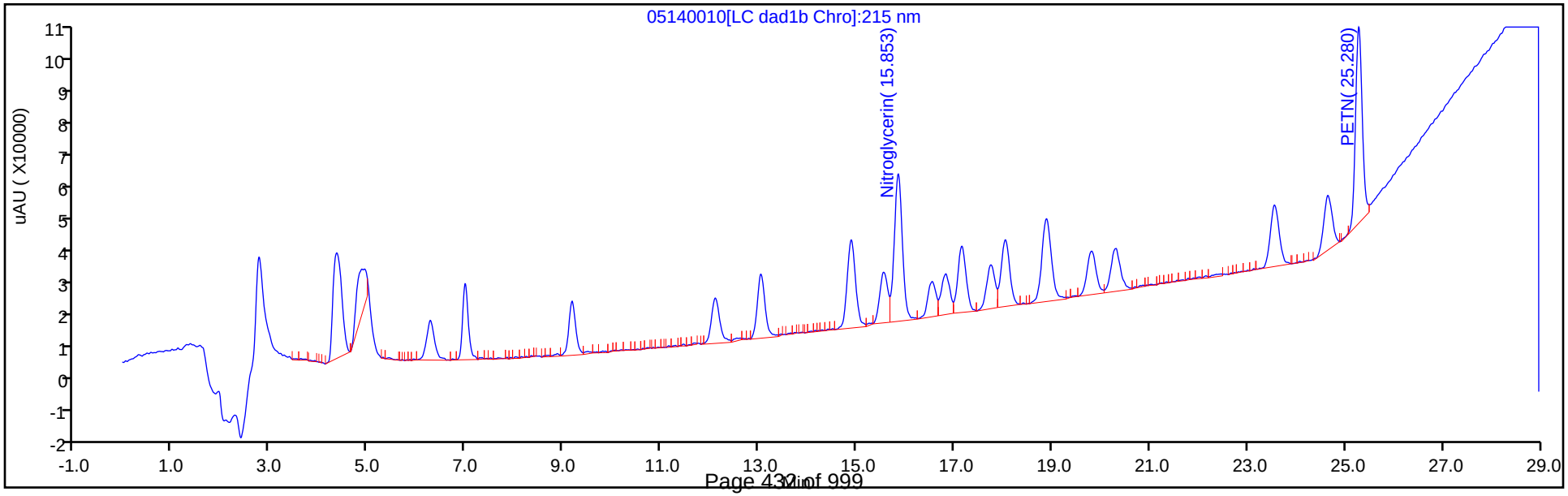
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 6			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

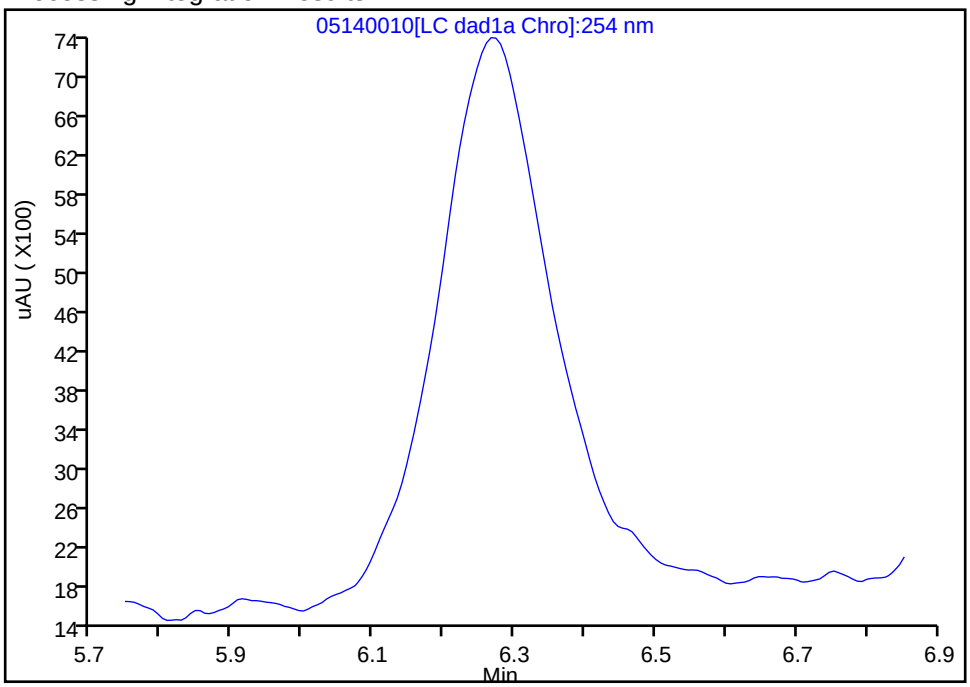
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

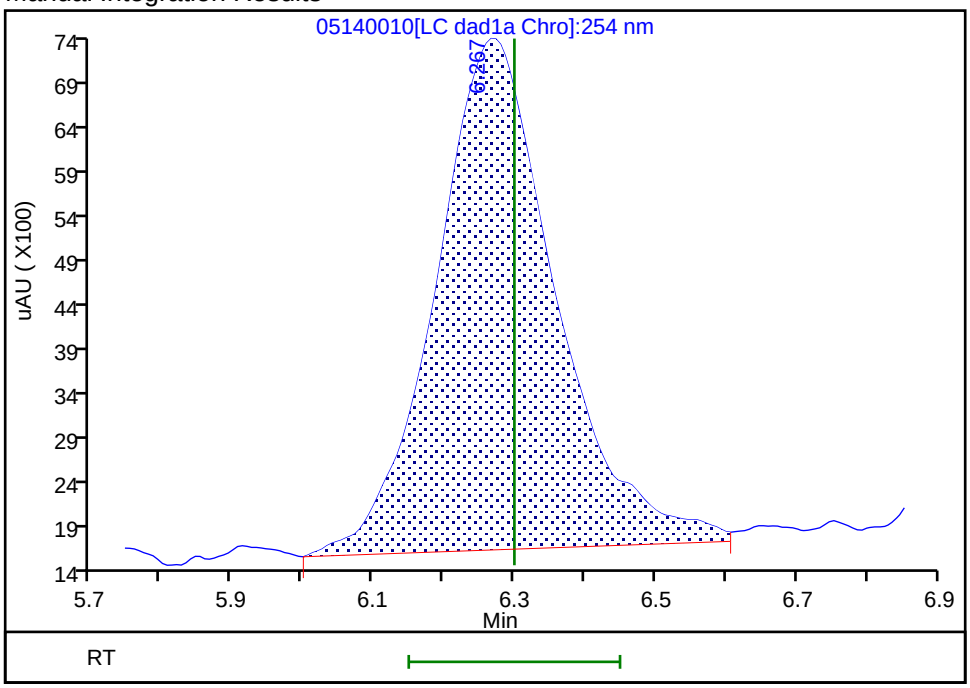
Not Detected
Expected RT: 6.30

Processing Integration Results



RT: 6.27
Area: 68021
Amount: 0.350967
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:20:14
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

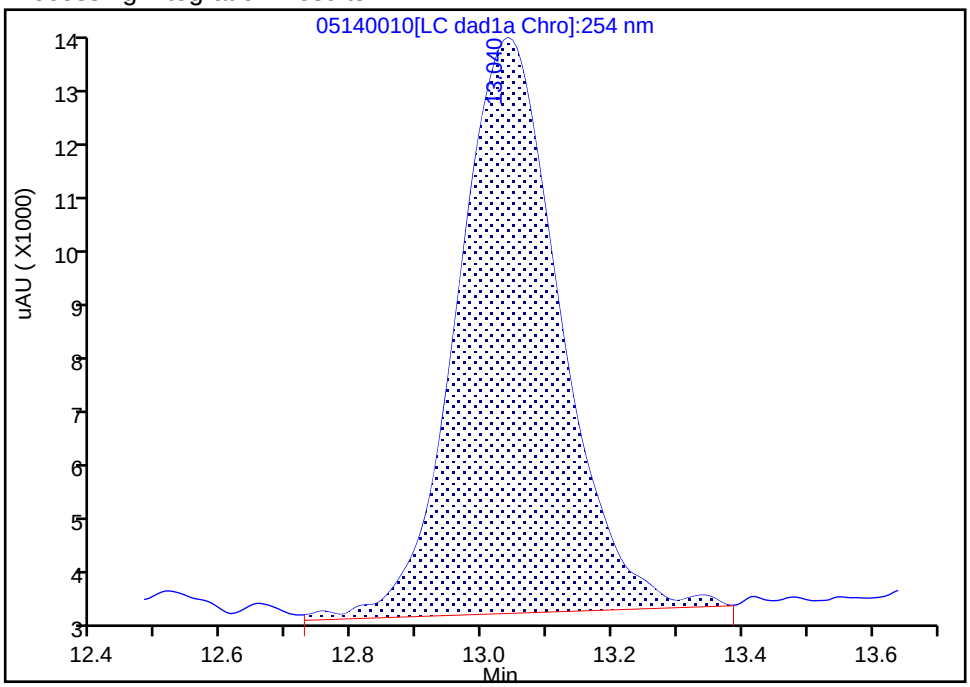
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

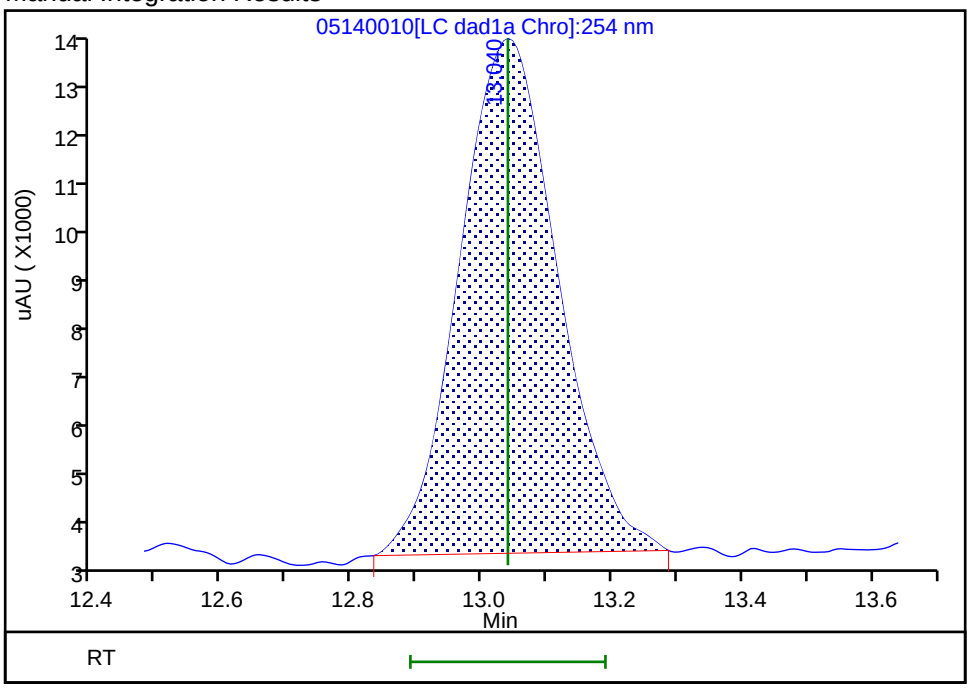
Processing Integration Results

RT: 13.04
Area: 114682
Amount: 0.364039
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 107232
Amount: 0.380167
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

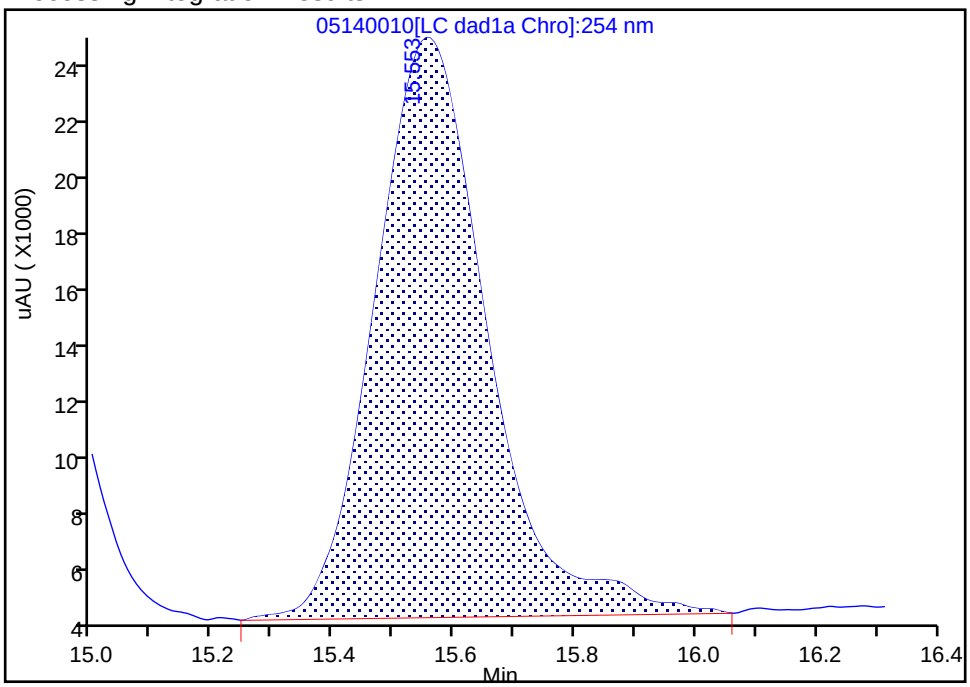
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

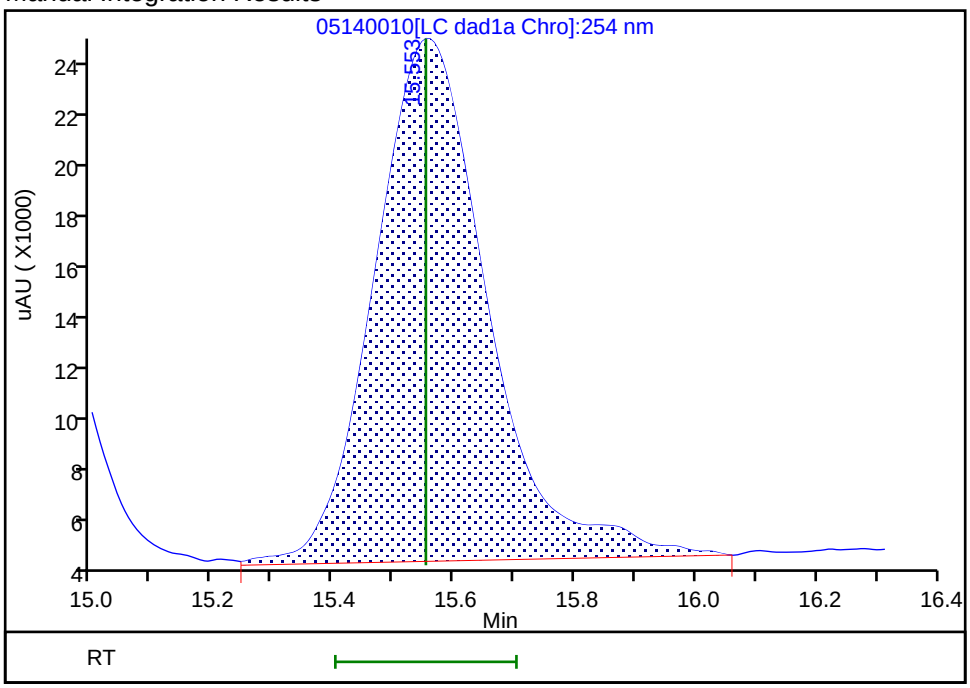
Processing Integration Results

RT: 15.55
Area: 255534
Amount: 0.374138
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 258559
Amount: 0.383511
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

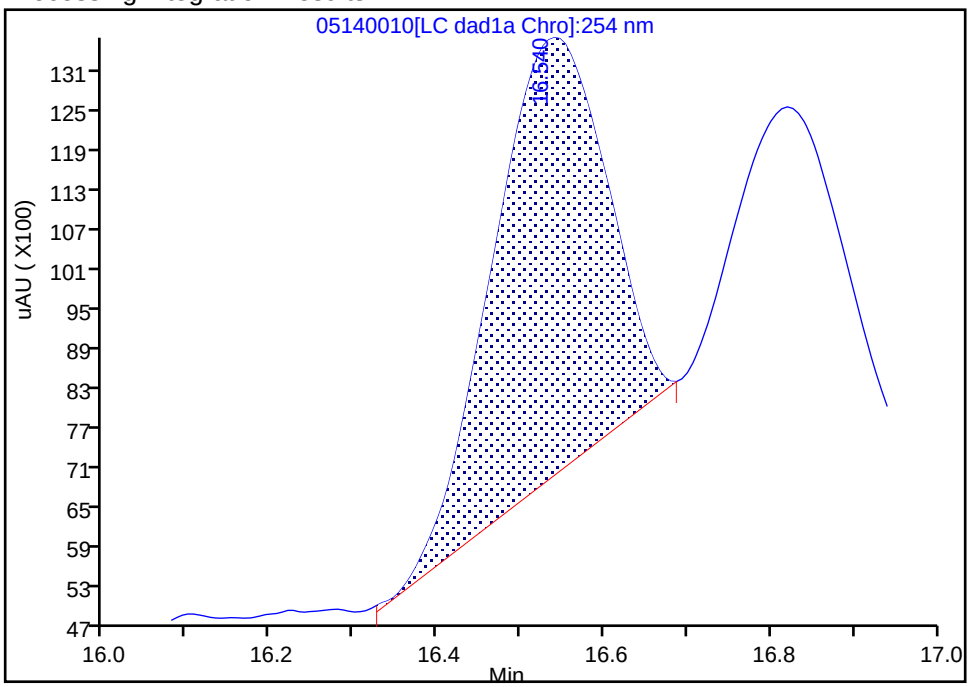
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

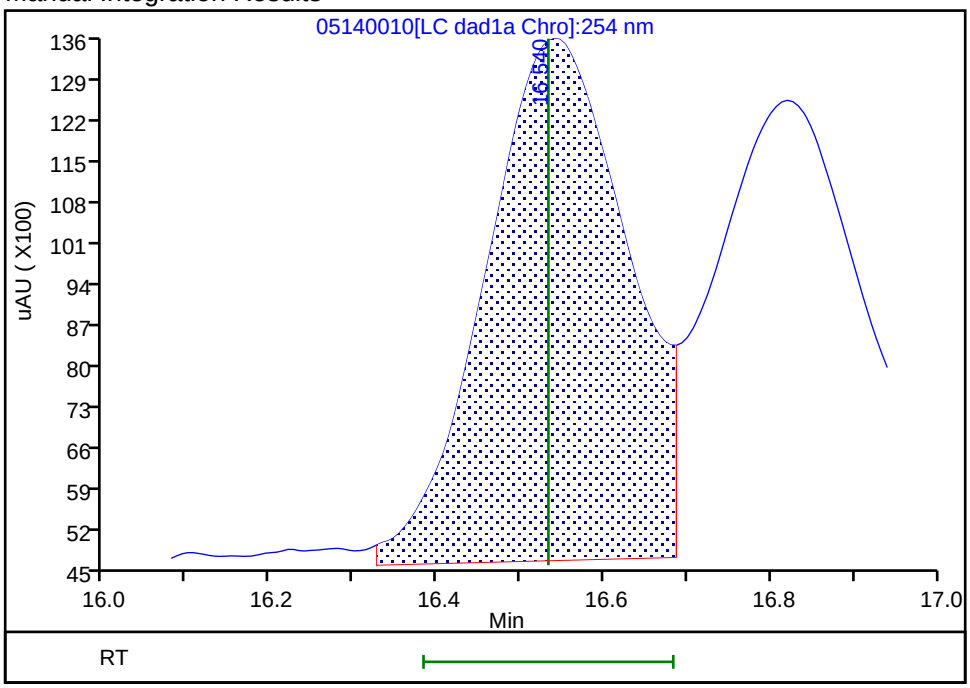
Processing Integration Results

RT: 16.54
Area: 63784
Amount: 0.238403
Amount Units: ug/ml



Manual Integration Results

RT: 16.54
Area: 105493
Amount: 0.386471
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

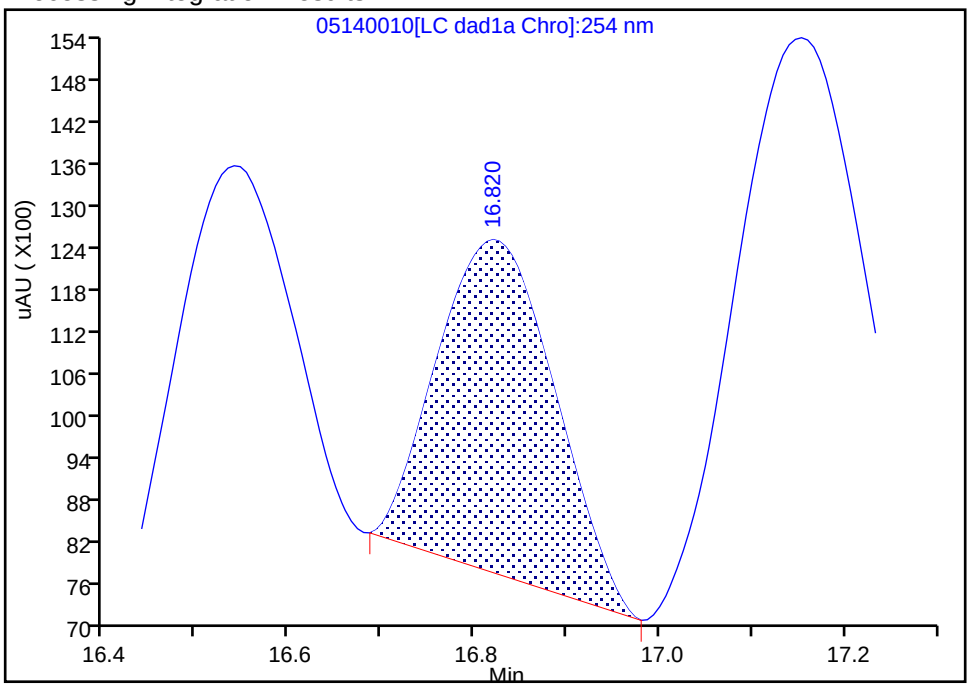
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

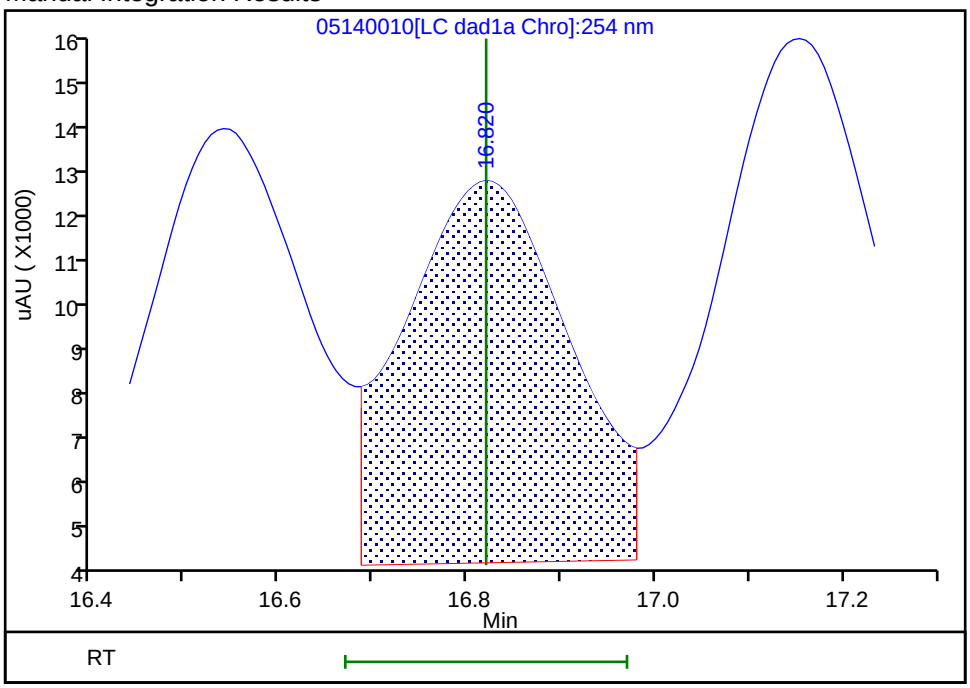
Processing Integration Results

RT: 16.82
Area: 42038
Amount: 0.176152
Amount Units: ug/ml



Manual Integration Results

RT: 16.82
Area: 93773
Amount: 0.389291
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

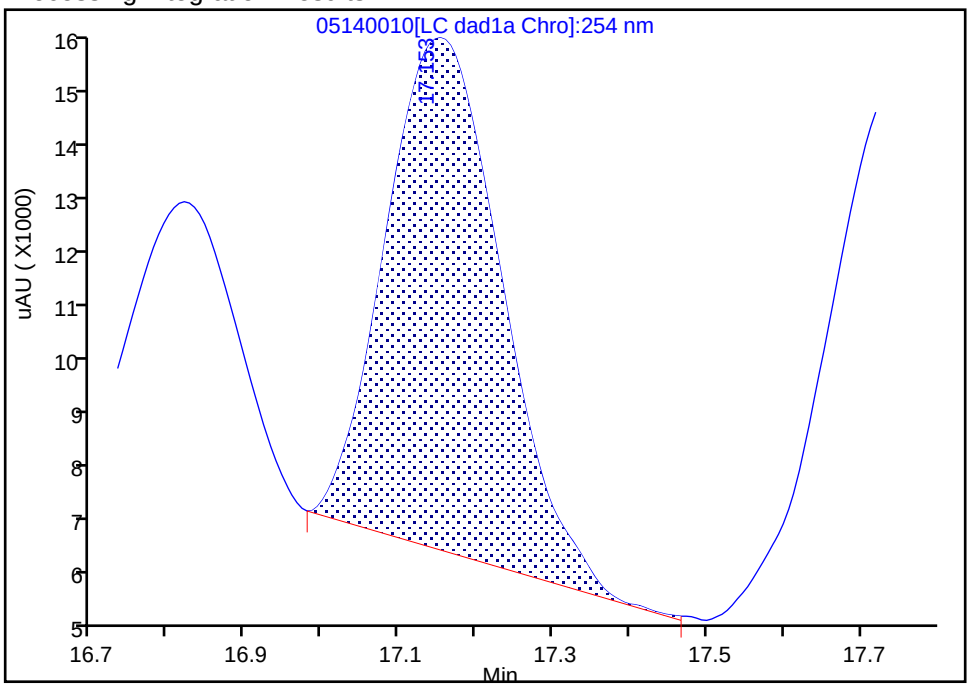
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

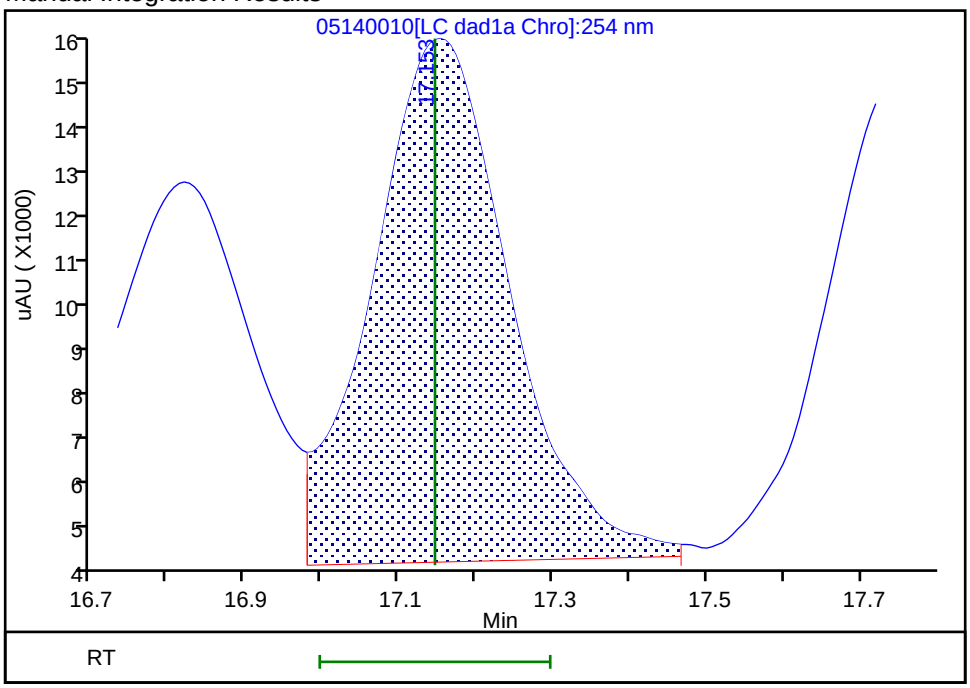
Processing Integration Results

RT: 17.15
Area: 95002
Amount: 0.278639
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 130436
Amount: 0.377818
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

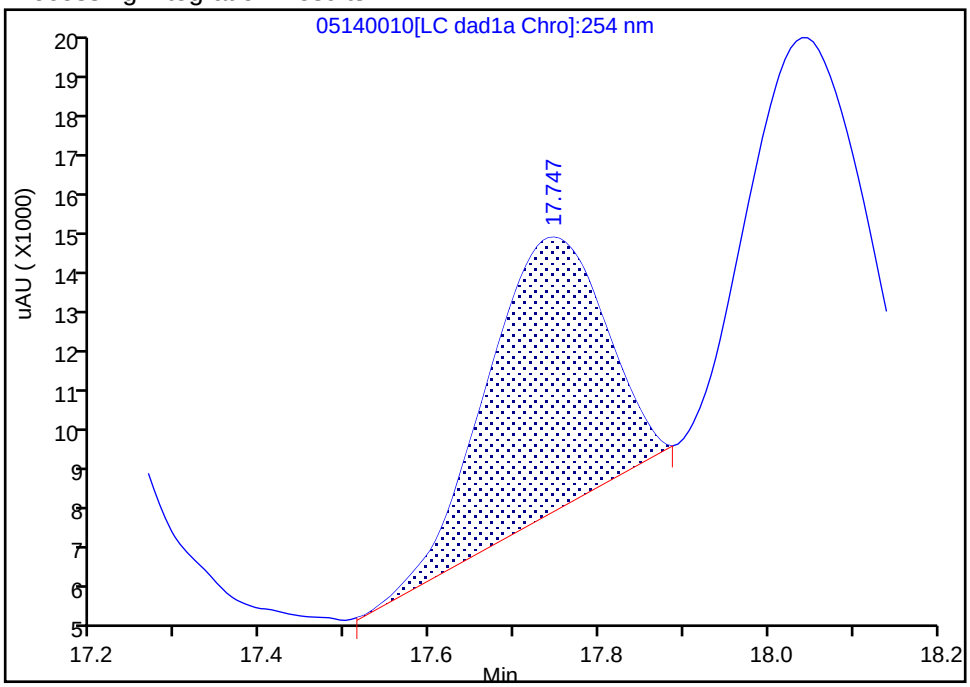
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

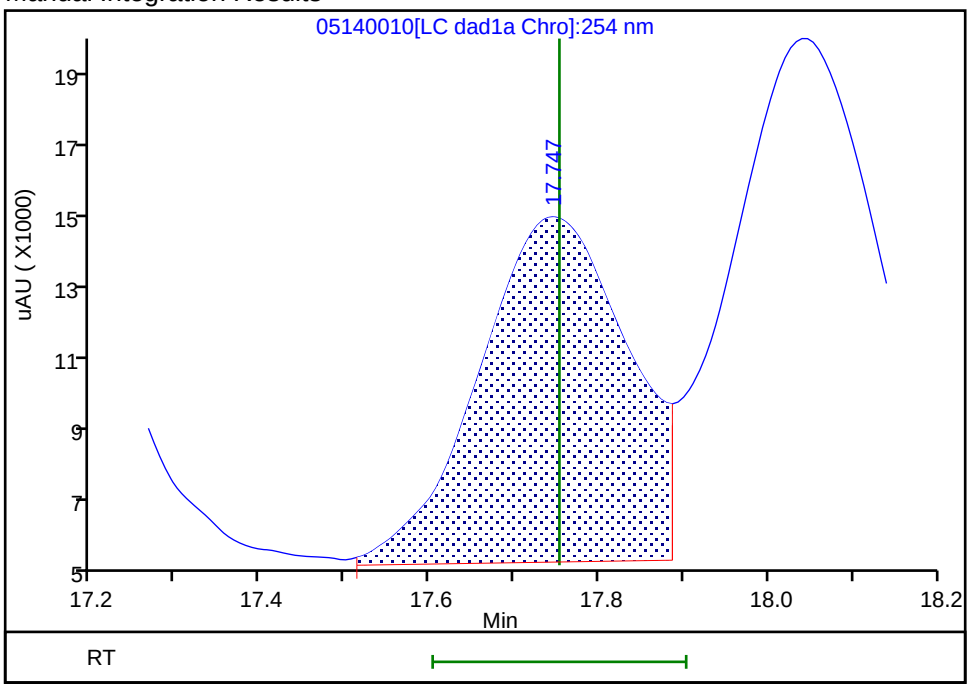
Processing Integration Results

RT: 17.75
Area: 65895
Amount: 0.232967
Amount Units: ug/ml



Manual Integration Results

RT: 17.75
Area: 115331
Amount: 0.386593
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

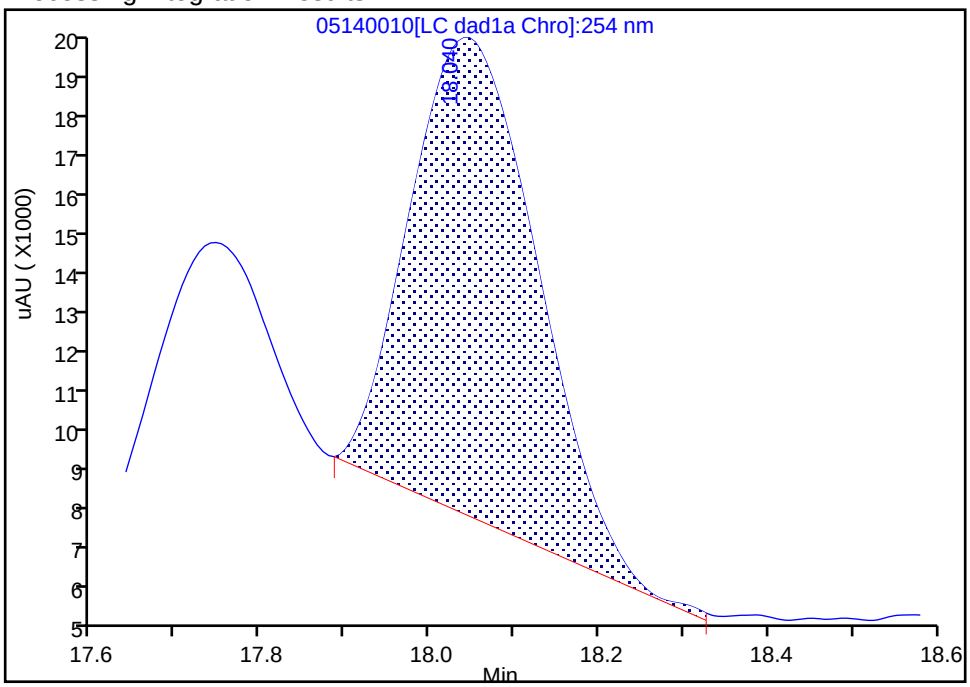
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

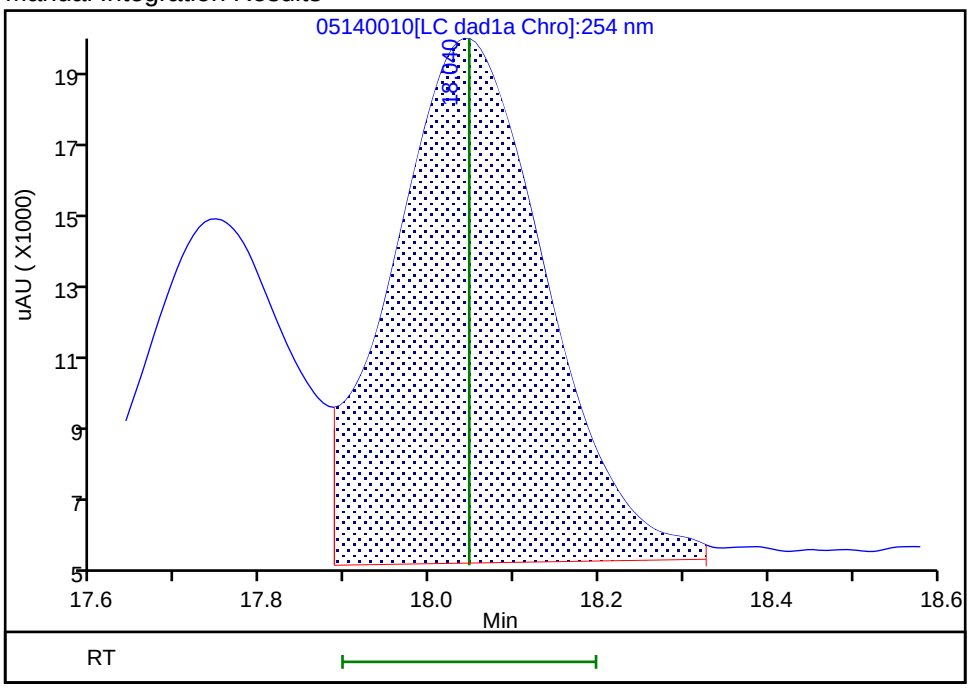
Processing Integration Results

RT: 18.04
Area: 120261
Amount: 0.277181
Amount Units: ug/ml



Manual Integration Results

RT: 18.04
Area: 179358
Amount: 0.385541
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

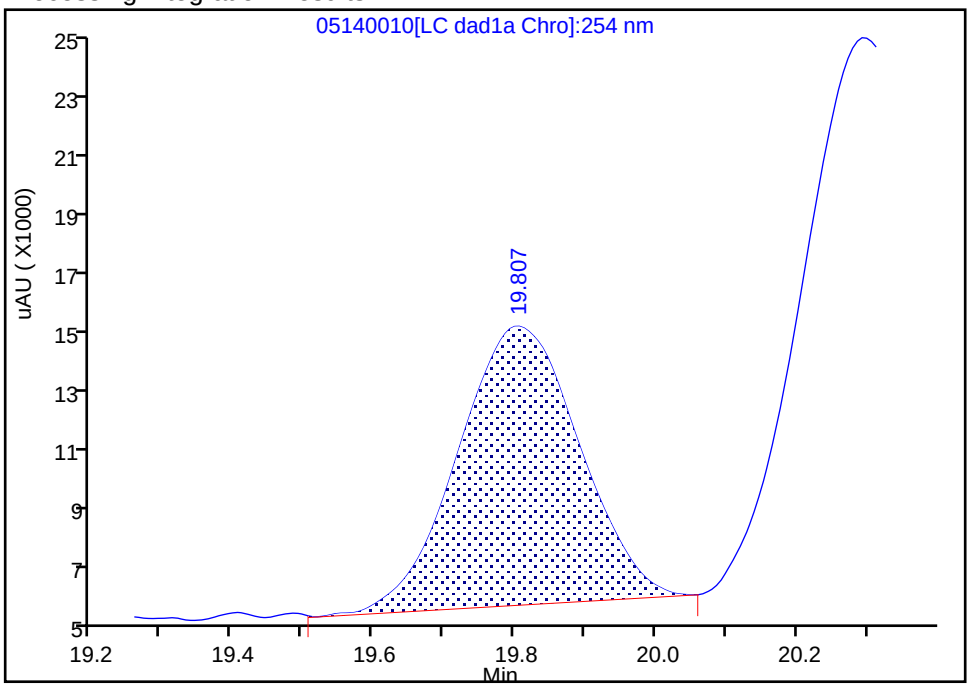
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

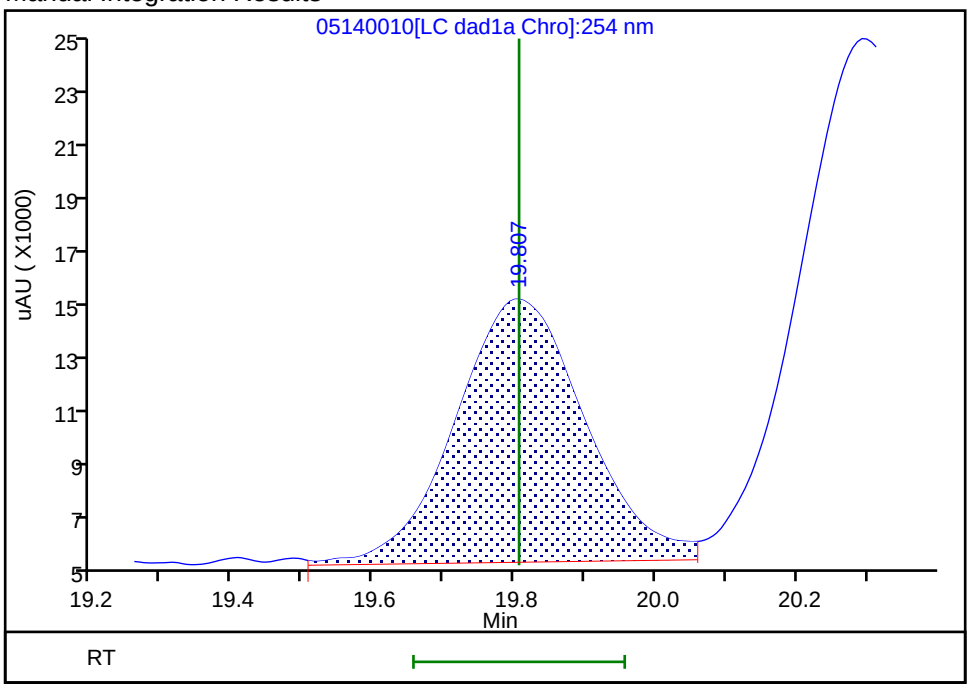
Processing Integration Results

RT: 19.81
Area: 105710
Amount: 0.311662
Amount Units: ug/ml



Manual Integration Results

RT: 19.81
Area: 118093
Amount: 0.392980
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

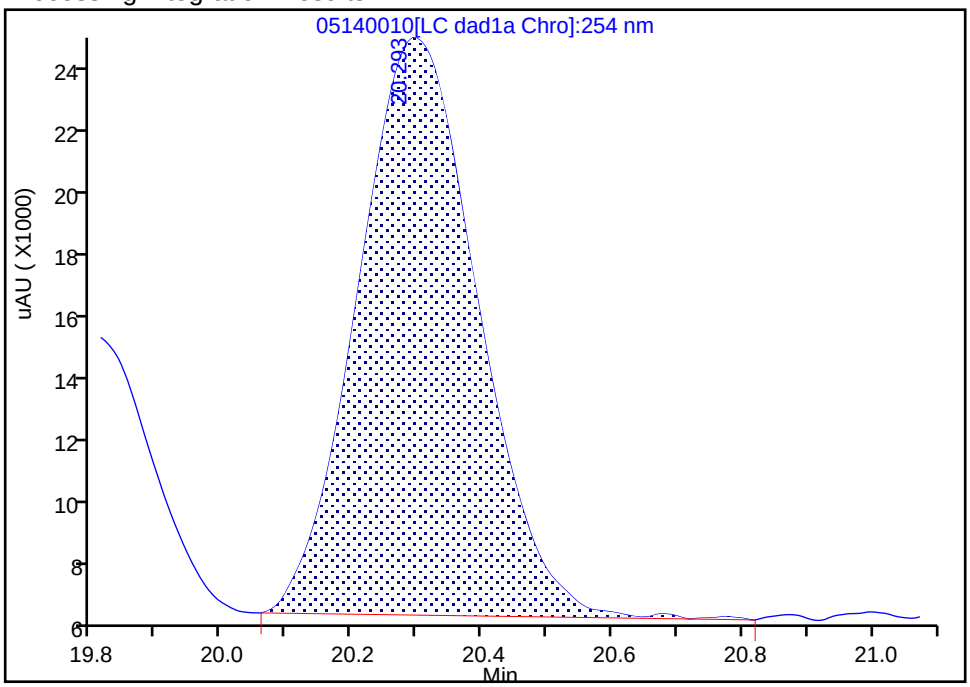
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

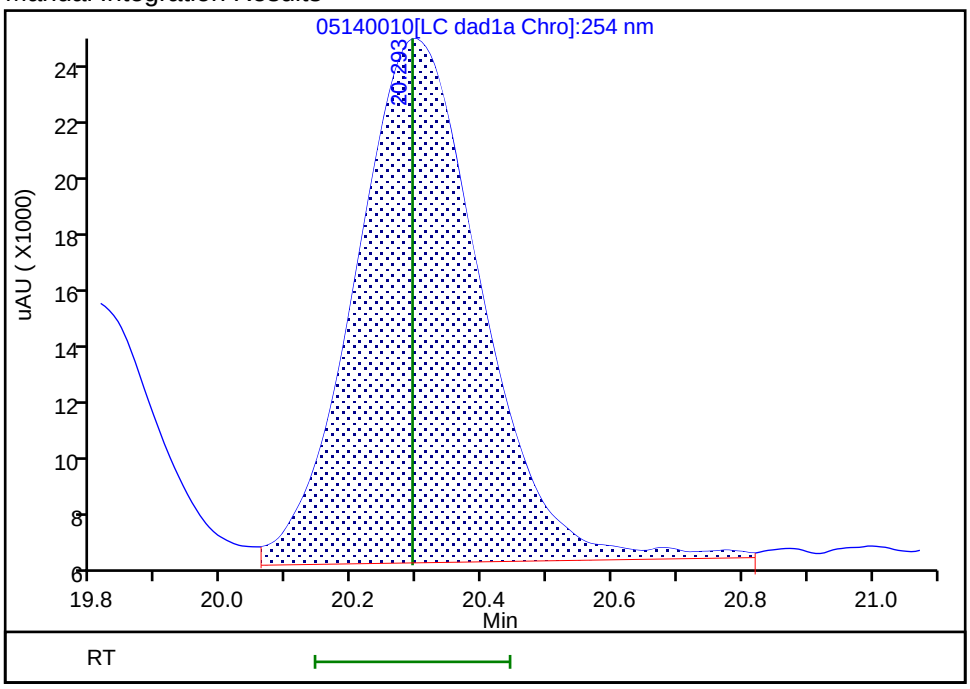
Processing Integration Results

RT: 20.29
Area: 226951
Amount: 0.348081
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 245009
Amount: 0.382759
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

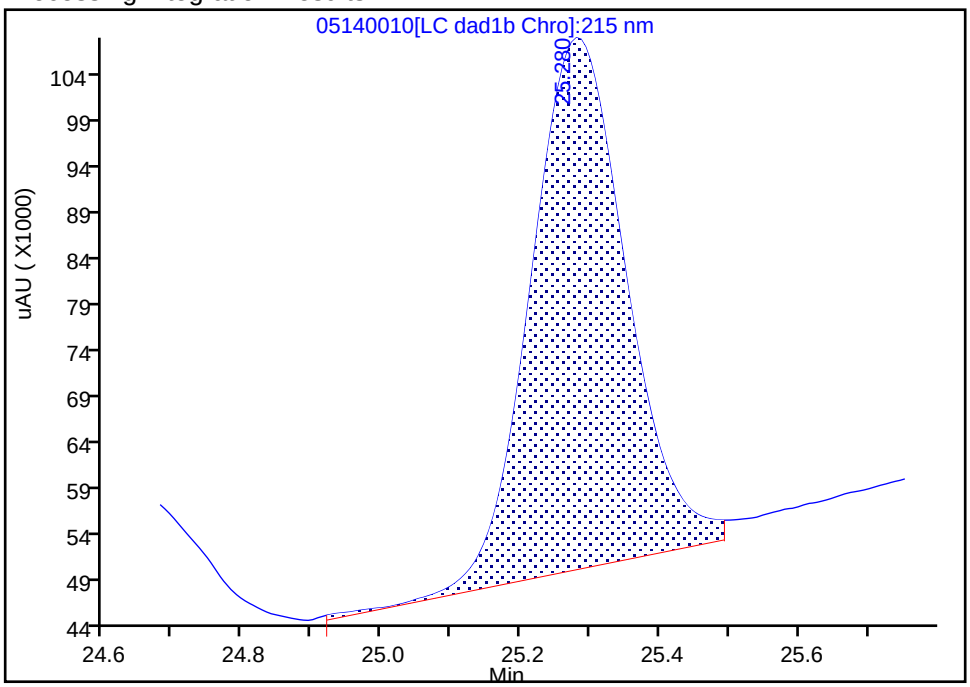
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

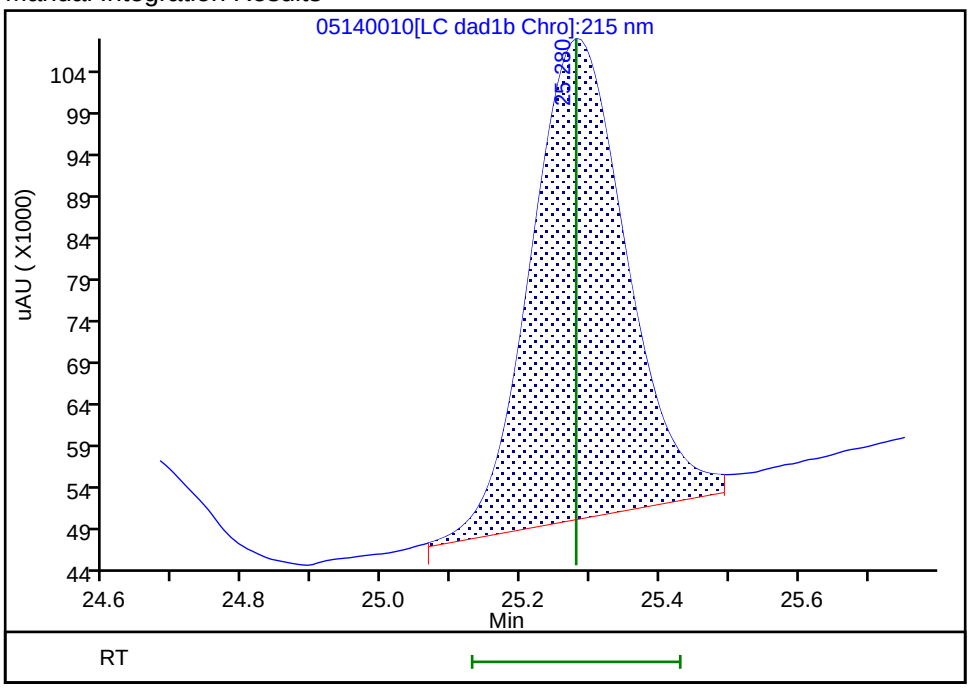
Processing Integration Results

RT: 25.28
Area: 559852
Amount: 4.200524
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 557734
Amount: 4.102237
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:18

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140011.D
Lims ID: IC FULL 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-May-2020 18:36:40 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 5
Misc. Info.: 280-0091518-011
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:20:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.366	4.366	0.000	106754	0.2500	0.2487	
2 2,4-diamino-6-nitrotoluene	1	4.880	4.880	0.000	74938	0.2500	0.2919	
5 2,4,6-Trinitrophenol	1	6.300	6.300	0.000	48614	0.2500	0.2508	a
6 HMX	1	6.986	6.986	0.000	54065	0.2500	0.2754	
8 RDX	1	9.173	9.173	0.000	62626	0.2500	0.2563	
9 Nitrobenzene	1	12.106	12.106	0.000	106064	0.2510	0.2415	
$ 10 1,2-Dinitrobenzene	1	13.040	13.040	0.000	62375	0.2500	0.2184	M
11 3,5-Dinitroaniline	1	14.886	14.886	0.000	130301	0.2500	0.2629	
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	172289	0.2505	0.2556	
13 Nitroglycerin	2	15.853	15.853	0.000	330378	2.50	2.61	M
14 o-Nitrotoluene	1	16.533	16.533	0.000	63146	0.2500	0.2313	
15 p-Nitrotoluene	1	16.820	16.820	0.000	59605	0.2505	0.2474	
16 4-Amino-2,6-dinitrotoluene	1	17.146	17.146	0.000	79168	0.2503	0.2293	
17 m-Nitrotoluene	1	17.753	17.753	0.000	71162	0.2503	0.2385	
18 2-Amino-4,6-dinitrotoluene	1	18.046	18.046	0.000	112860	0.2510	0.2426	
19 1,3,5-Trinitrobenzene	1	18.886	18.886	0.000	118709	0.2505	0.2513	
20 2,6-Dinitrotoluene	1	19.806	19.806	0.000	74317	0.2510	0.2416	
21 2,4-Dinitrotoluene	1	20.293	20.293	0.000	153249	0.2510	0.2394	
22 Tetryl	1	23.553	23.553	0.000	92236	0.2505	0.2502	
23 2,4,6-Trinitrotoluene	1	24.653	24.653	0.000	100168	0.2510	0.2416	
24 PETN	2	25.280	25.280	0.000	338241	2.50	2.40	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

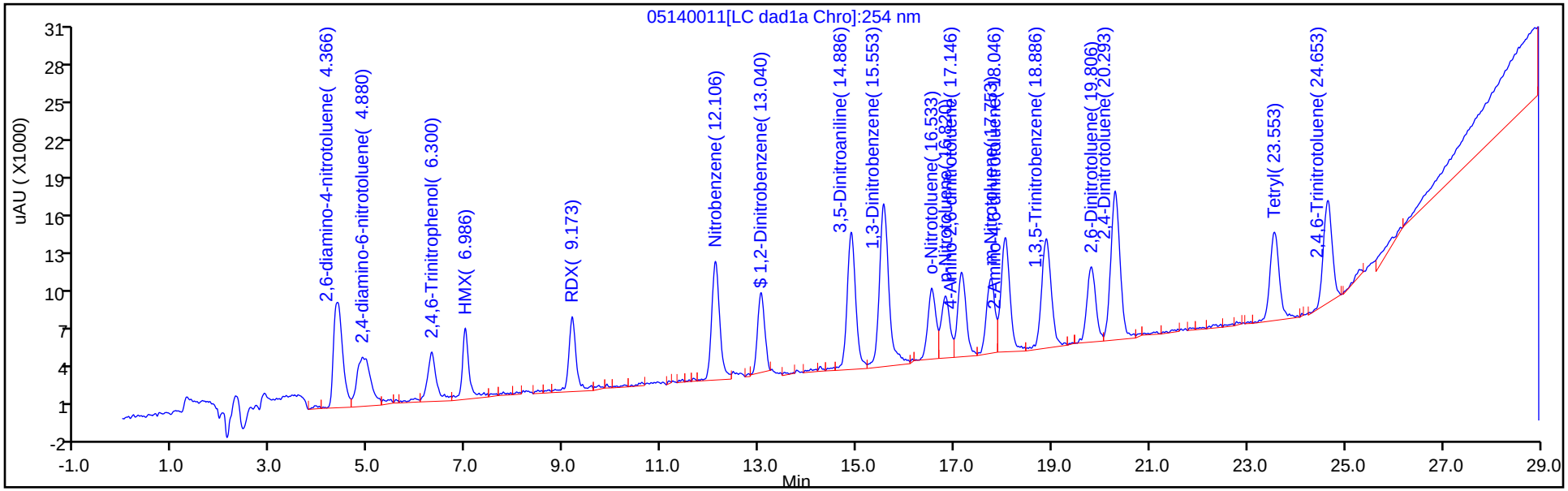
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00026	Amount Added:	12.50	Units: uL

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

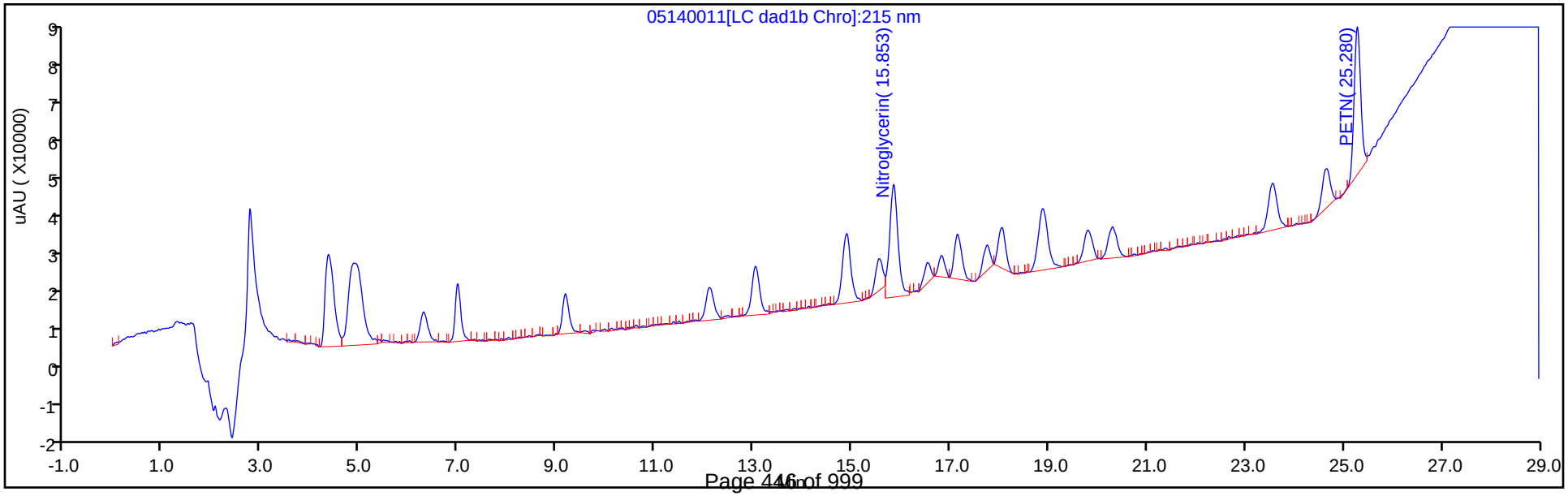
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 5			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

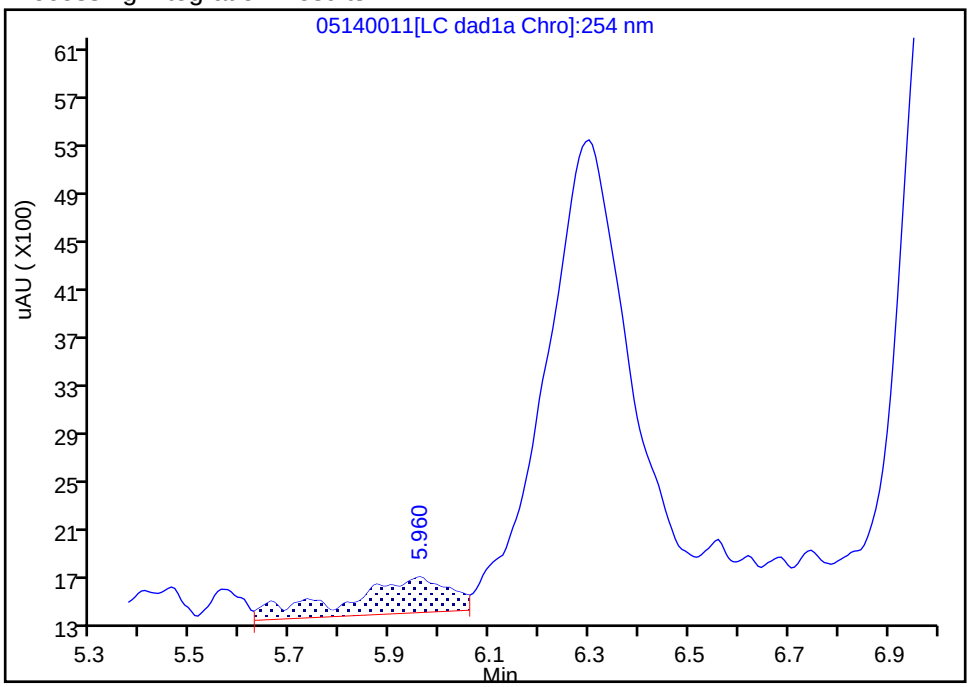
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

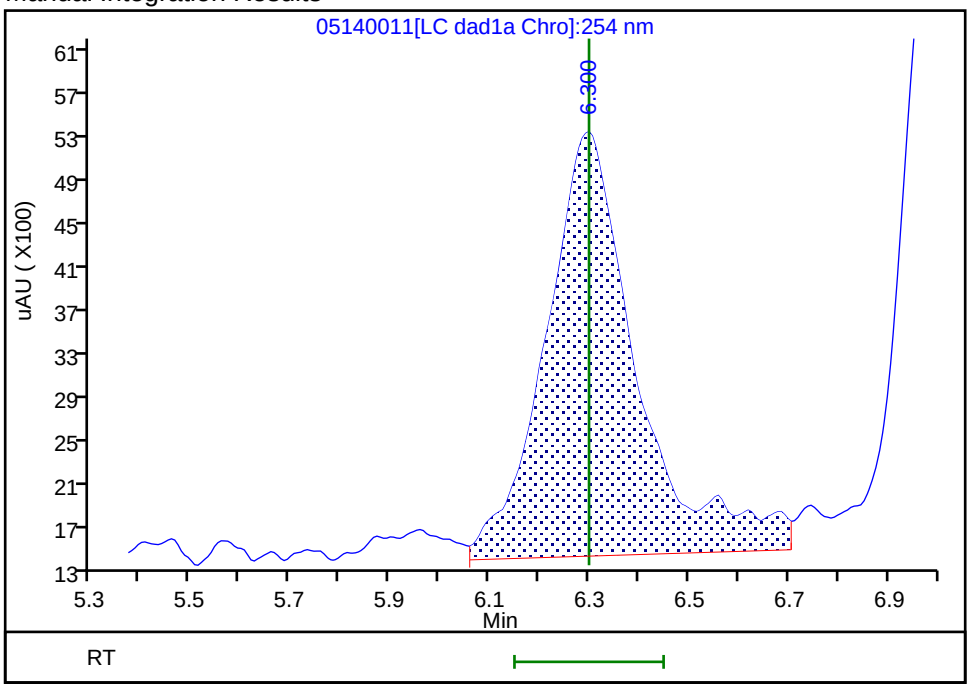
Processing Integration Results

RT: 5.96
Area: 4251
Amount: 0.036696
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 48614
Amount: 0.250833
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:52
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

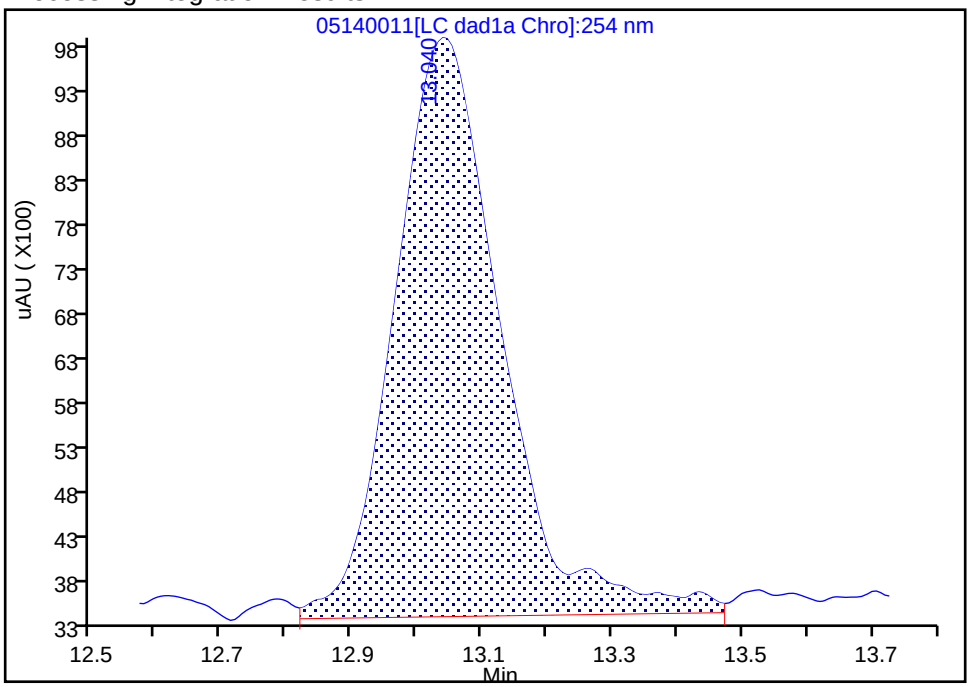
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

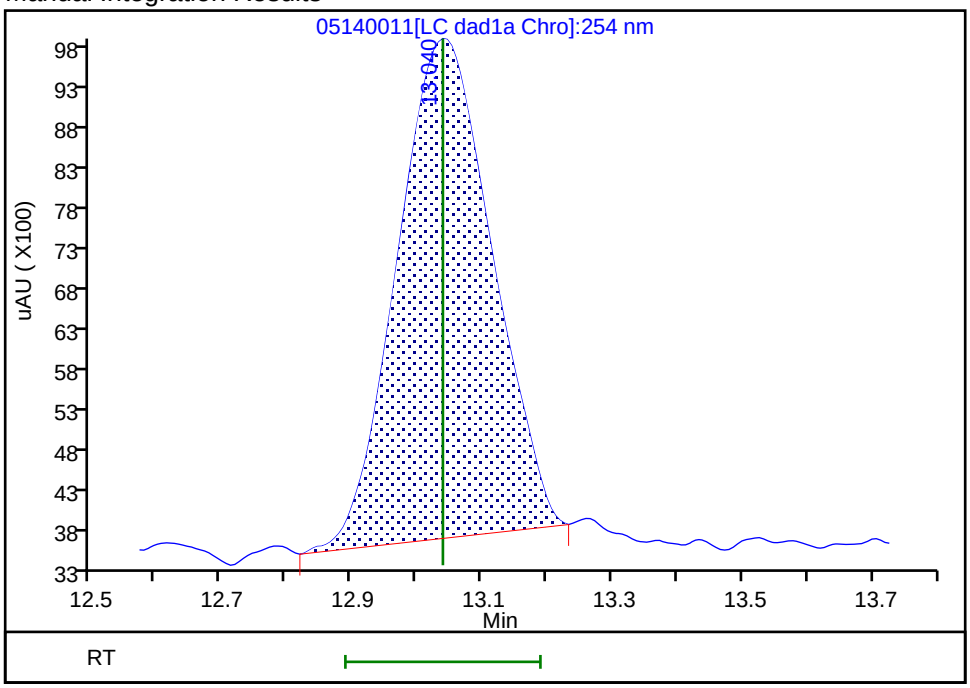
Processing Integration Results

RT: 13.04
Area: 73345
Amount: 0.234804
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 62375
Amount: 0.218362
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

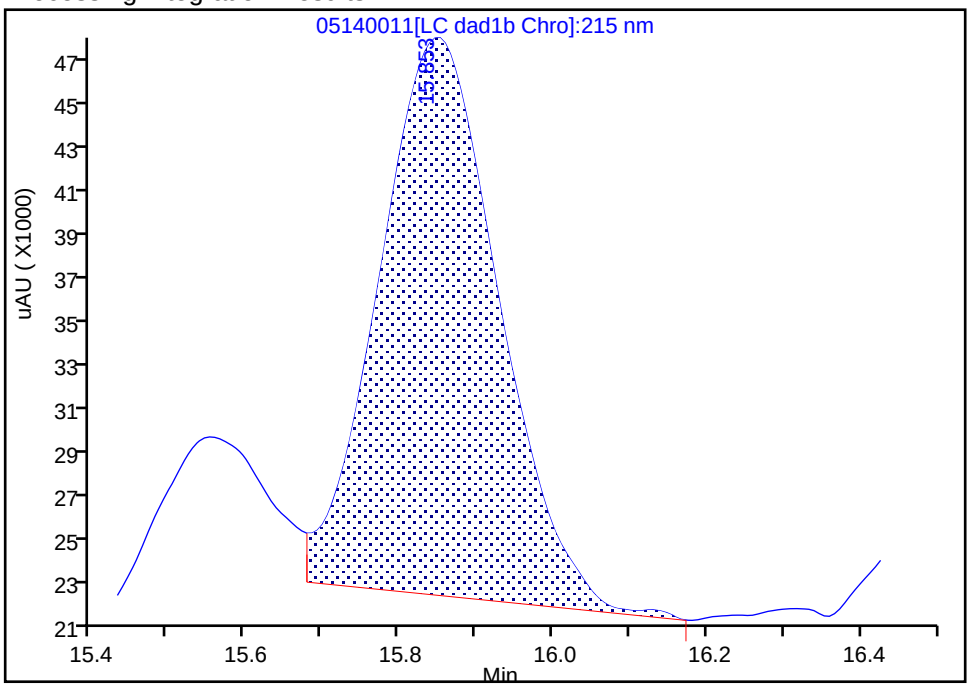
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

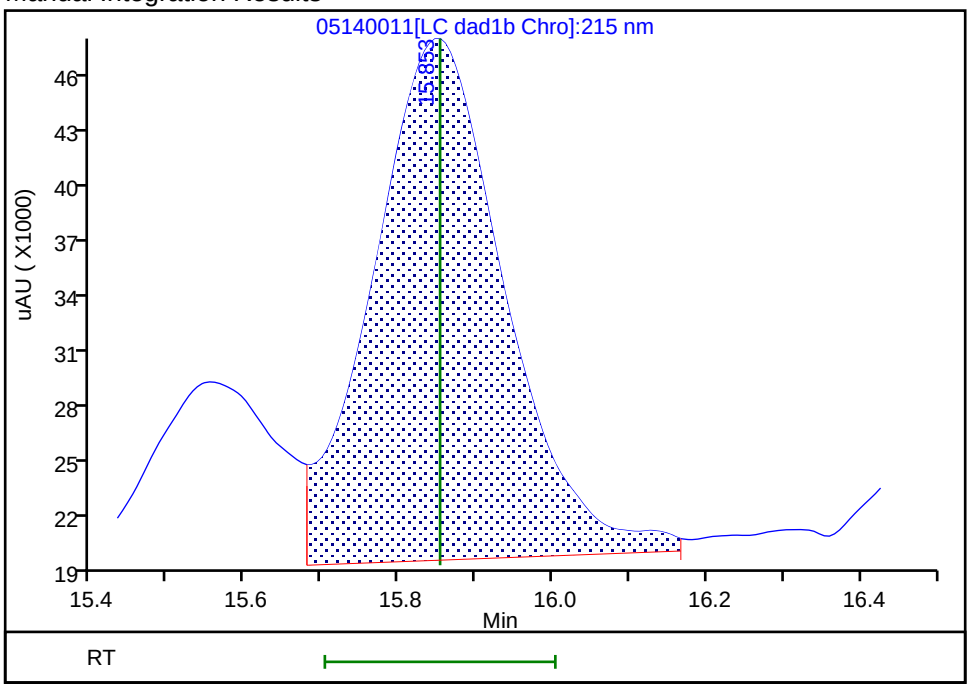
Processing Integration Results

RT: 15.85
Area: 276053
Amount: 2.464482
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 330378
Amount: 2.605436
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

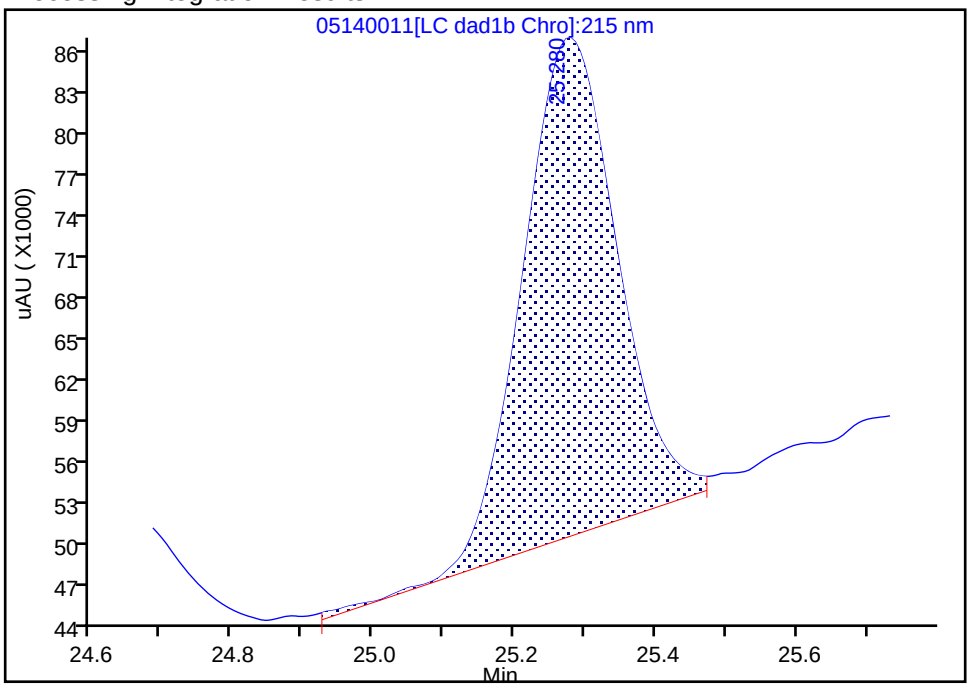
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

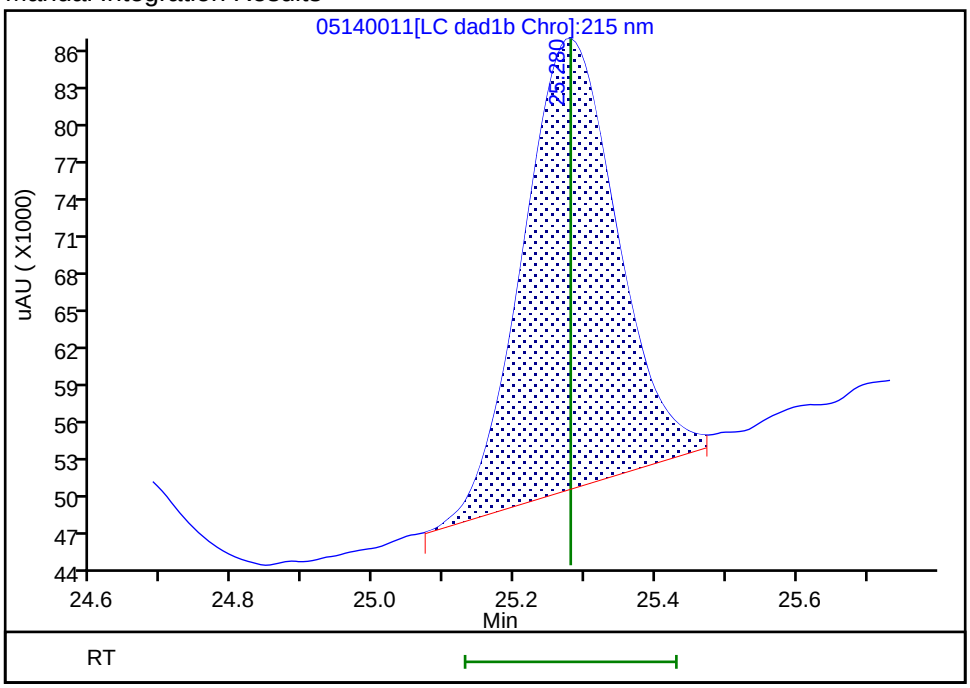
Processing Integration Results

RT: 25.28
Area: 339815
Amount: 2.534573
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 338241
Amount: 2.404524
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:08

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140012.D
Lims ID: IC FULL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-May-2020 19:11:37 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 4
Misc. Info.: 280-0091518-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:57 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:21:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.361	4.366	-0.005	44739	0.1000	0.1042	
2 2,4-diamino-6-nitrotoluene	1	4.941	4.880	0.061	33889	0.1000	0.1193	
5 2,4,6-Trinitrophenol	1	6.308	6.300	0.008	23170	0.1000	0.1195	a
6 HMX	1	6.994	6.986	0.008	24294	0.1000	0.1072	
8 RDX	1	9.181	9.173	0.008	27233	0.1000	0.1114	
9 Nitrobenzene	1	12.114	12.106	0.008	42679	0.1004	0.0972	
$ 10 1,2-Dinitrobenzene	1	13.048	13.040	0.008	30683	0.1000	0.1040	
11 3,5-Dinitroaniline	1	14.901	14.886	0.015	51716	0.1000	0.1009	M
12 1,3-Dinitrobenzene	1	15.554	15.553	0.001	69012	0.1002	0.1024	M
13 Nitroglycerin	2	15.848	15.853	-0.005	141489	1.00	1.12	M
14 o-Nitrotoluene	1	16.534	16.533	0.001	29062	0.1000	0.1065	M
15 p-Nitrotoluene	1	16.828	16.820	0.008	25956	0.1002	0.1078	M
16 4-Amino-2,6-dinitrotoluene	1	17.148	17.146	0.002	32448	0.1001	0.0940	M
17 m-Nitrotoluene	1	17.741	17.753	-0.012	30586	0.1001	0.1025	M
18 2-Amino-4,6-dinitrotoluene	1	18.054	18.046	0.008	47526	0.1004	0.1022	M
19 1,3,5-Trinitrobenzene	1	18.881	18.886	-0.005	51028	0.1002	0.1080	M
20 2,6-Dinitrotoluene	1	19.794	19.806	-0.012	34659	0.1004	0.1045	M
21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	67500	0.1004	0.1055	M
22 Tetryl	1	23.548	23.553	-0.005	38547	0.1002	0.1046	
23 2,4,6-Trinitrotoluene	1	24.654	24.653	0.001	43208	0.1004	0.0997	
24 PETN	2	25.281	25.280	0.001	132172	1.00	0.8106	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

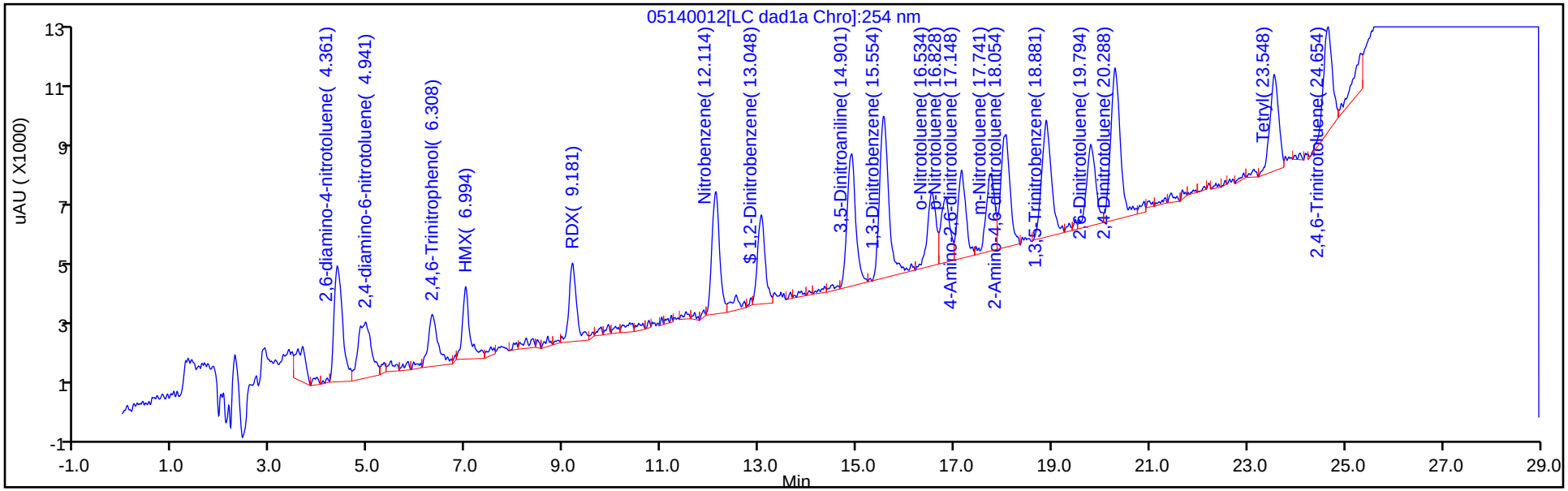
8330IntermStk_00064	Amount Added: 10.00	Units: uL
8330_ADDs_00026	Amount Added: 5.00	Units: uL

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

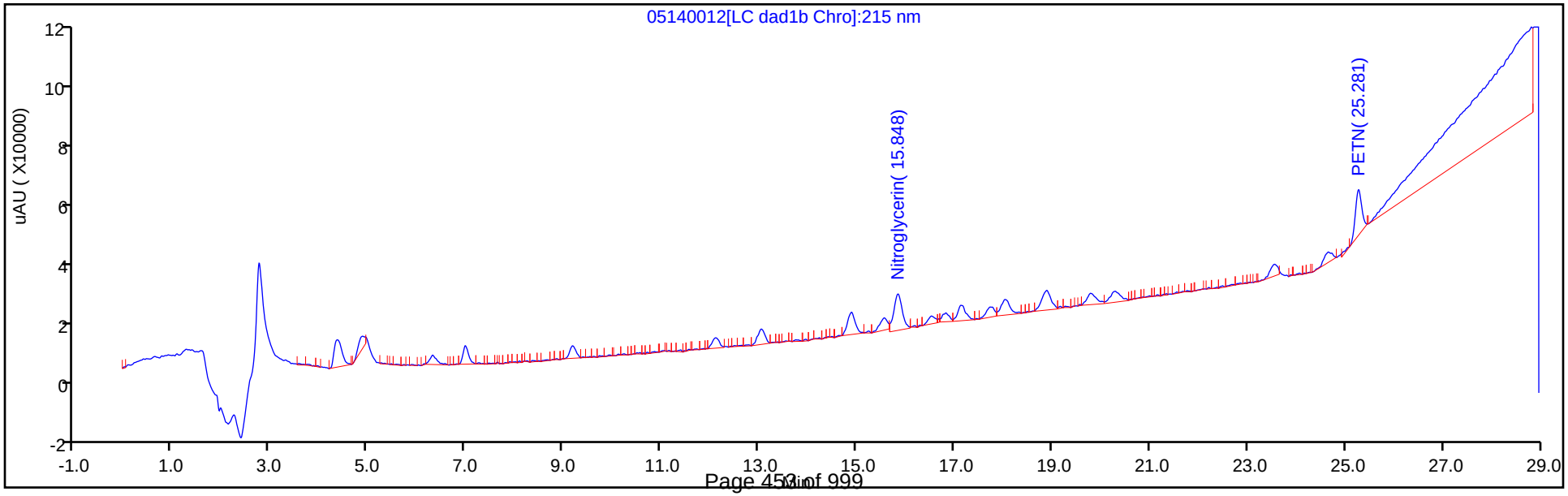
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 4			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

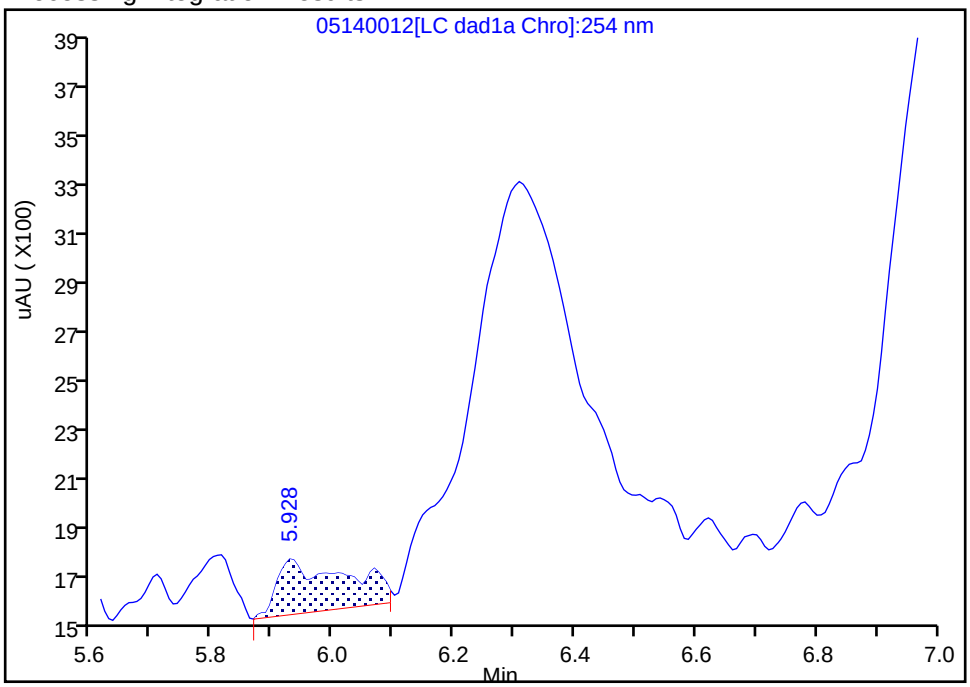
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

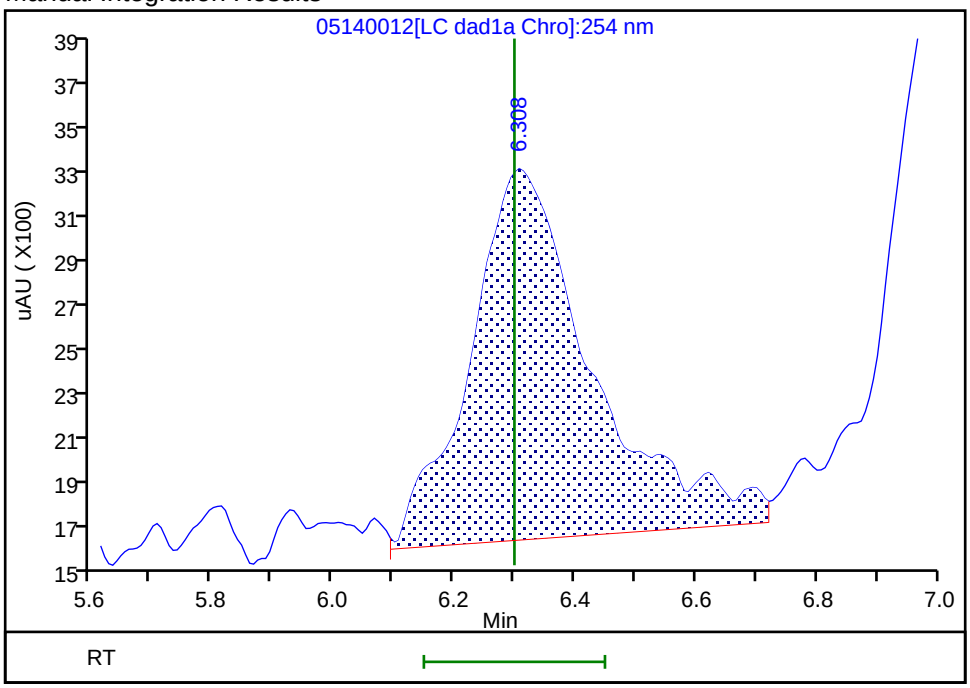
Processing Integration Results

RT: 5.93
Area: 1700
Amount: 0.010784
Amount Units: ug/ml



Manual Integration Results

RT: 6.31
Area: 23170
Amount: 0.119550
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

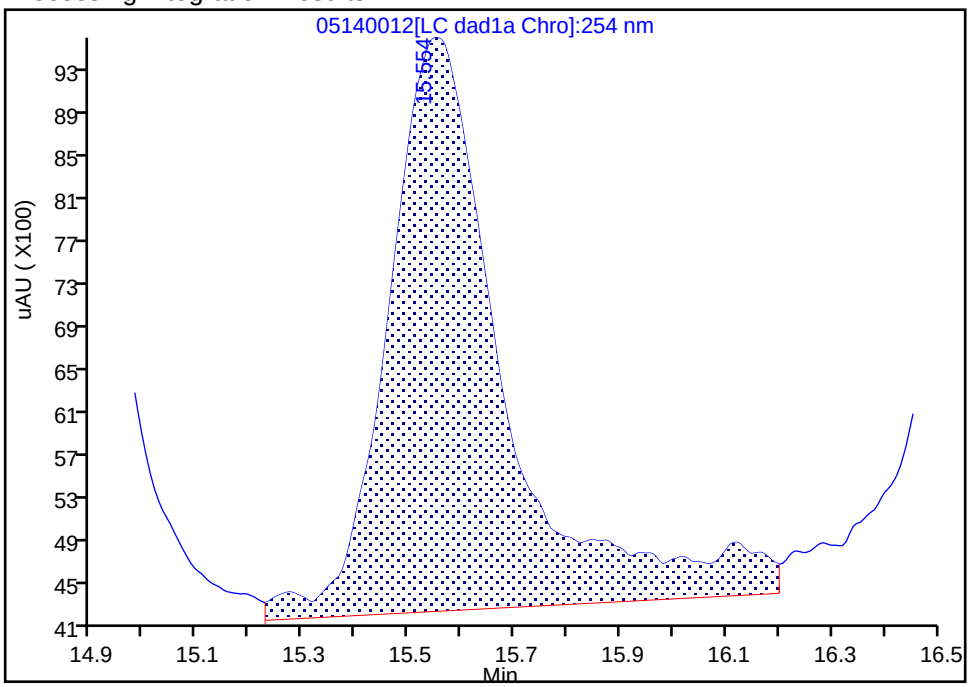
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

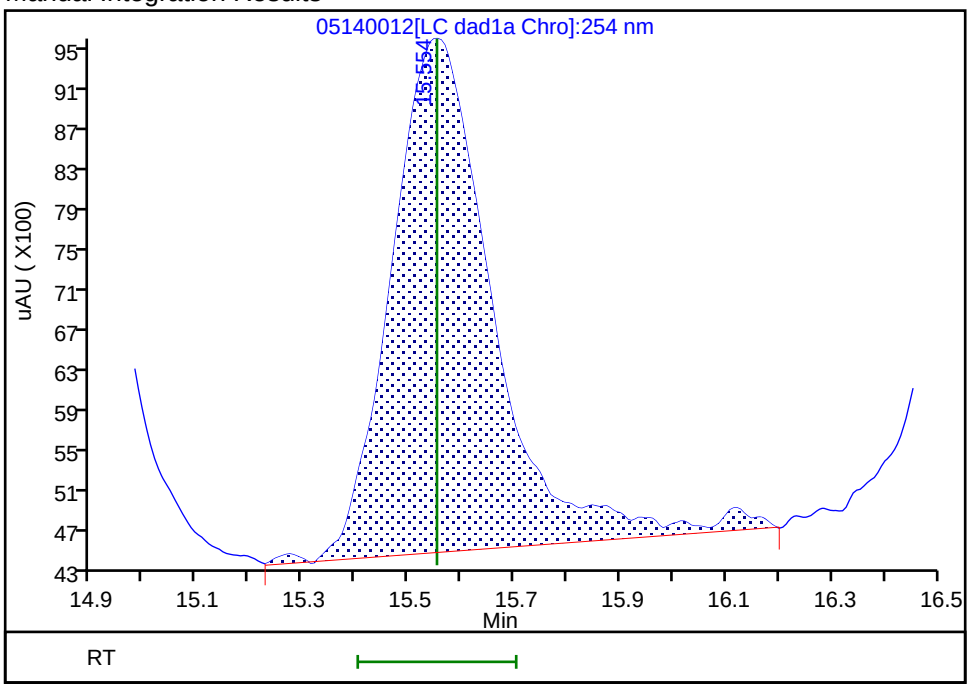
Processing Integration Results

RT: 15.55
Area: 81626
Amount: 0.119366
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 69012
Amount: 0.102363
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

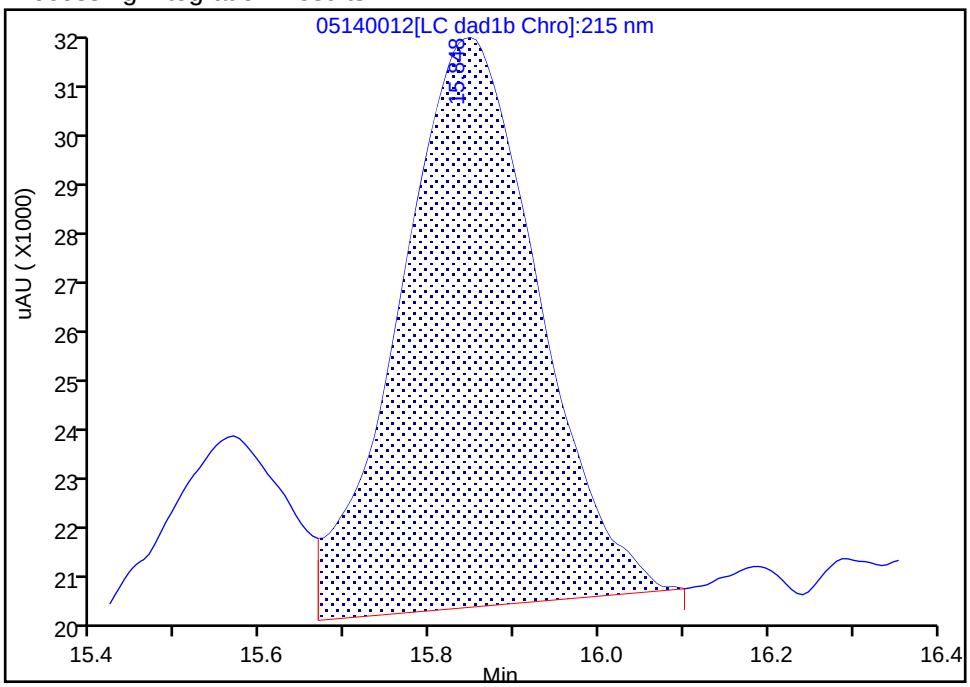
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

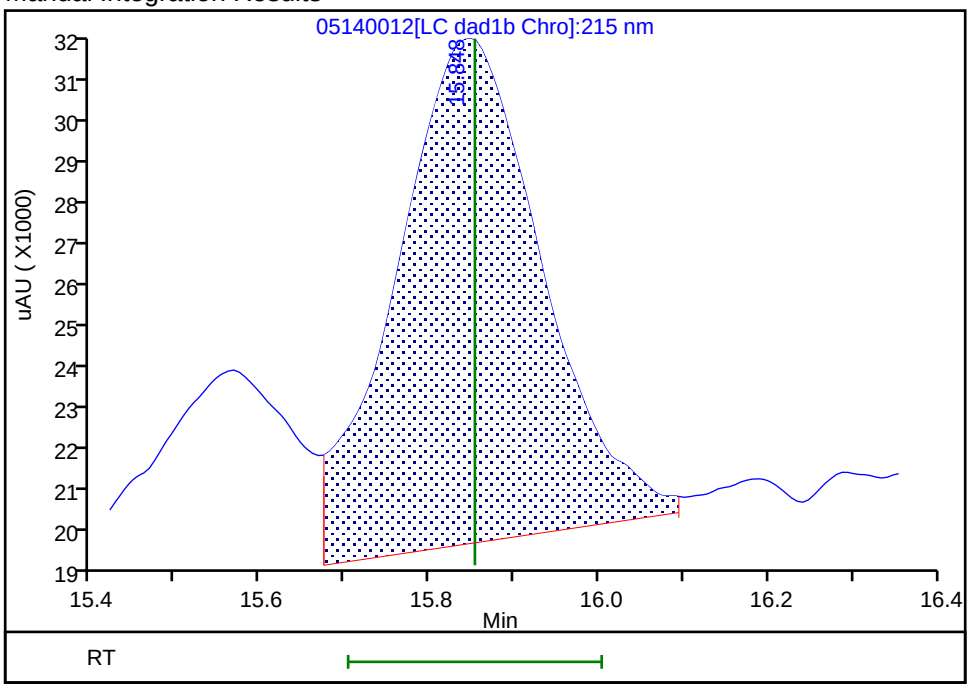
Processing Integration Results

RT: 15.85
Area: 125471
Amount: 1.093631
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 141489
Amount: 1.115815
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

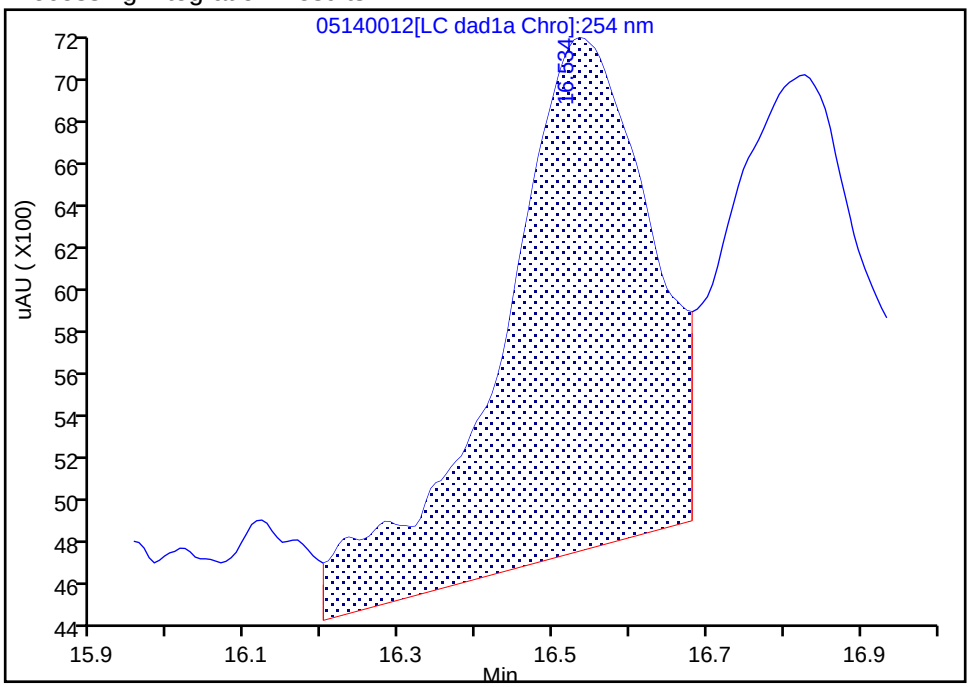
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

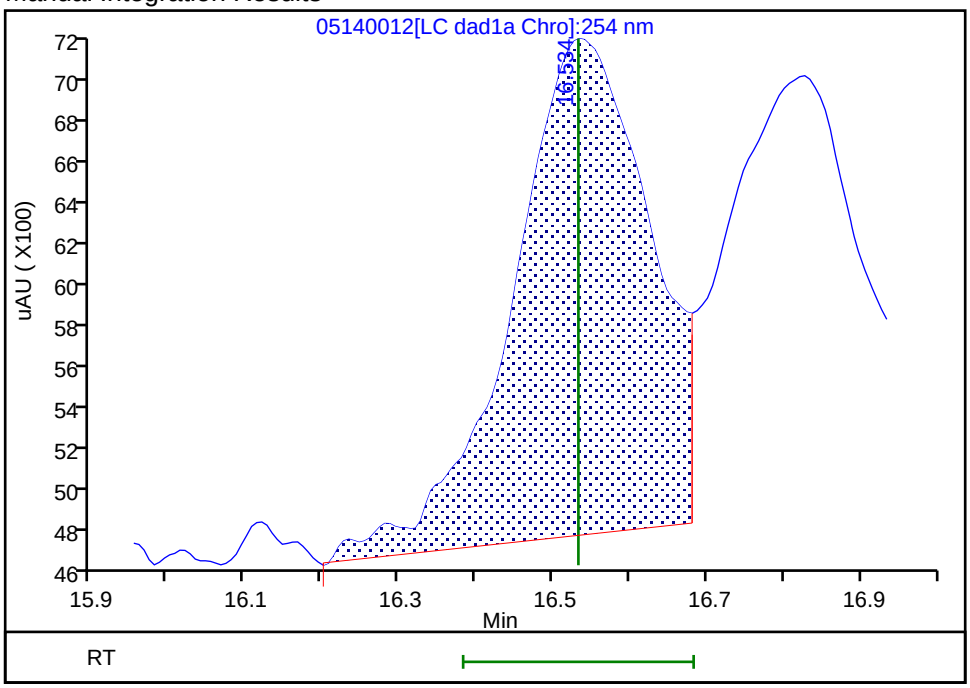
Processing Integration Results

RT: 16.53
Area: 33080
Amount: 0.118510
Amount Units: ug/ml



Manual Integration Results

RT: 16.53
Area: 29062
Amount: 0.106468
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

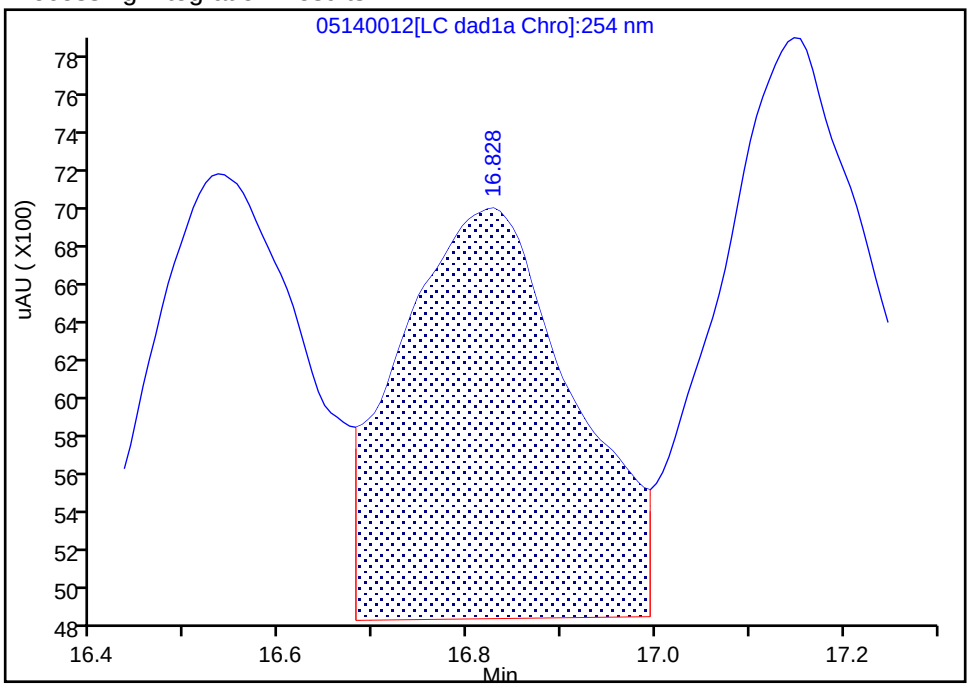
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

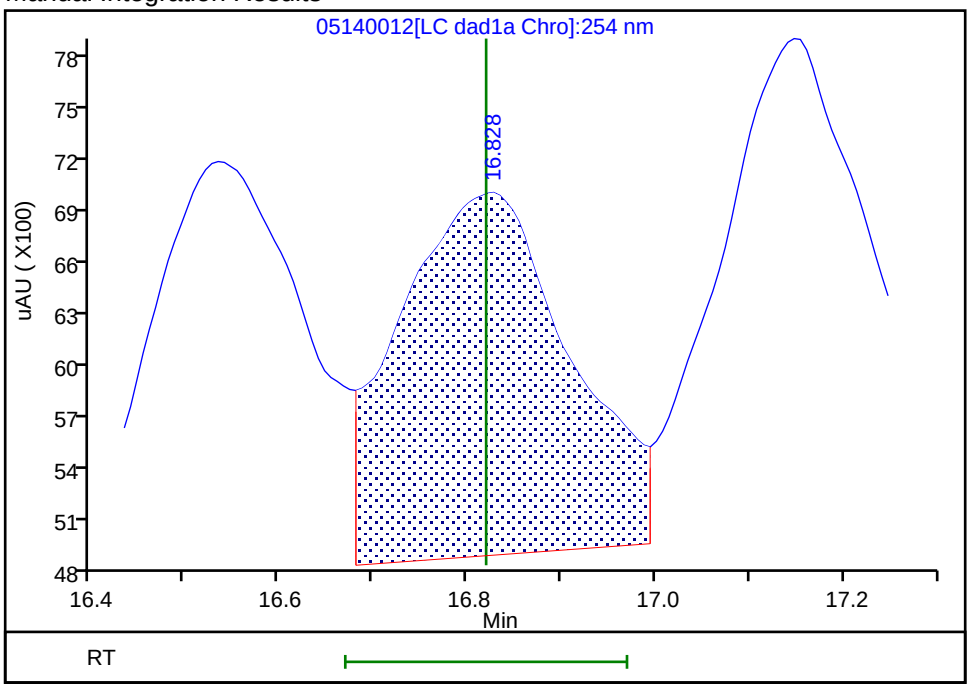
Processing Integration Results

RT: 16.83
Area: 26887
Amount: 0.106277
Amount Units: ug/ml



Manual Integration Results

RT: 16.83
Area: 25956
Amount: 0.107754
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

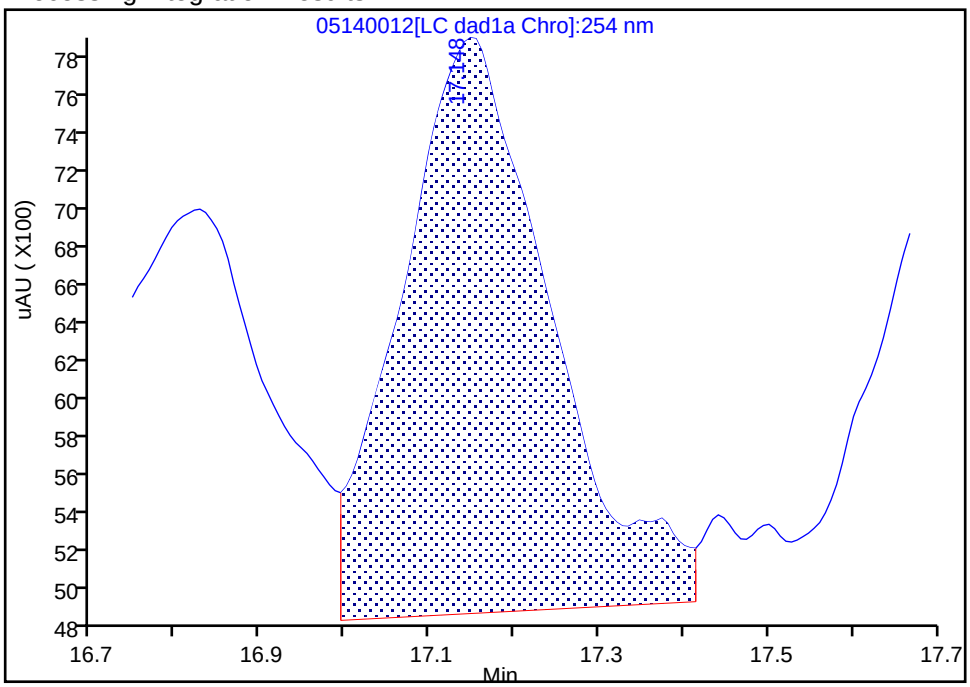
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

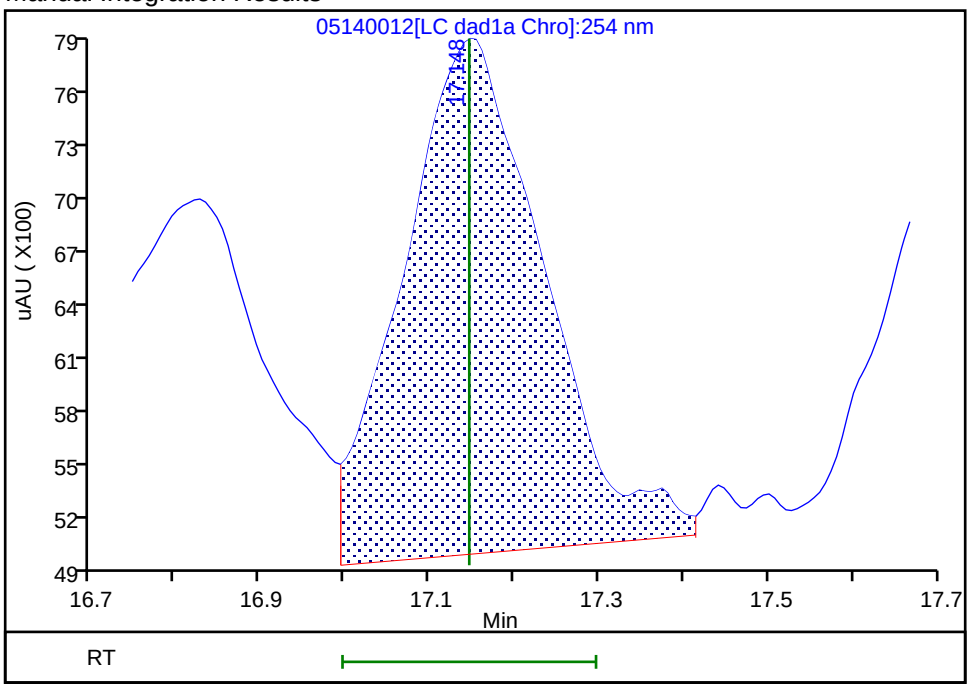
Processing Integration Results

RT: 17.15
Area: 35863
Amount: 0.102237
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 32448
Amount: 0.093988
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

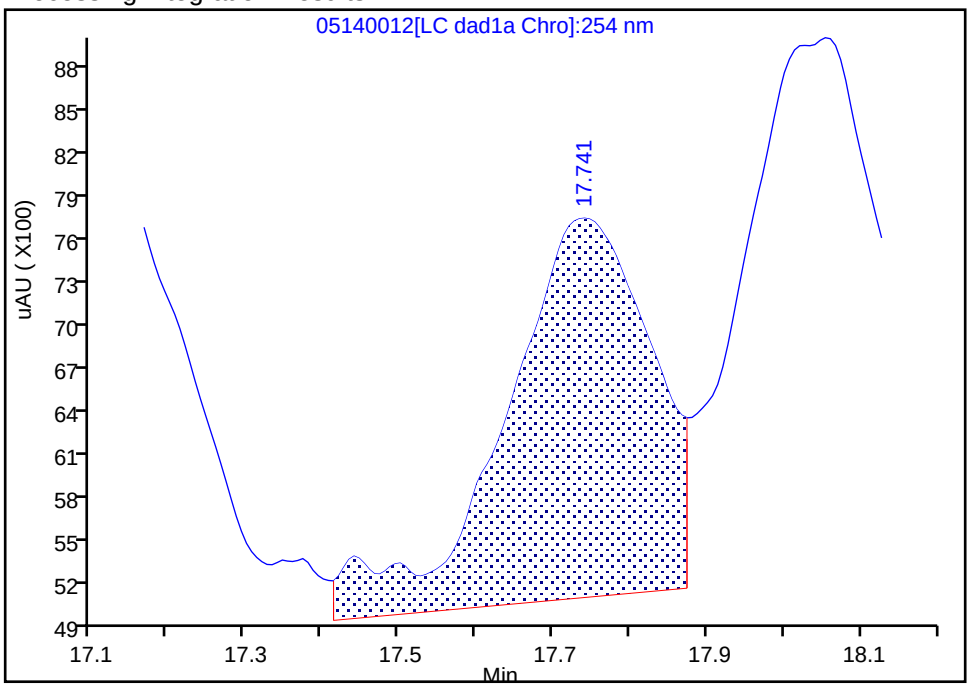
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

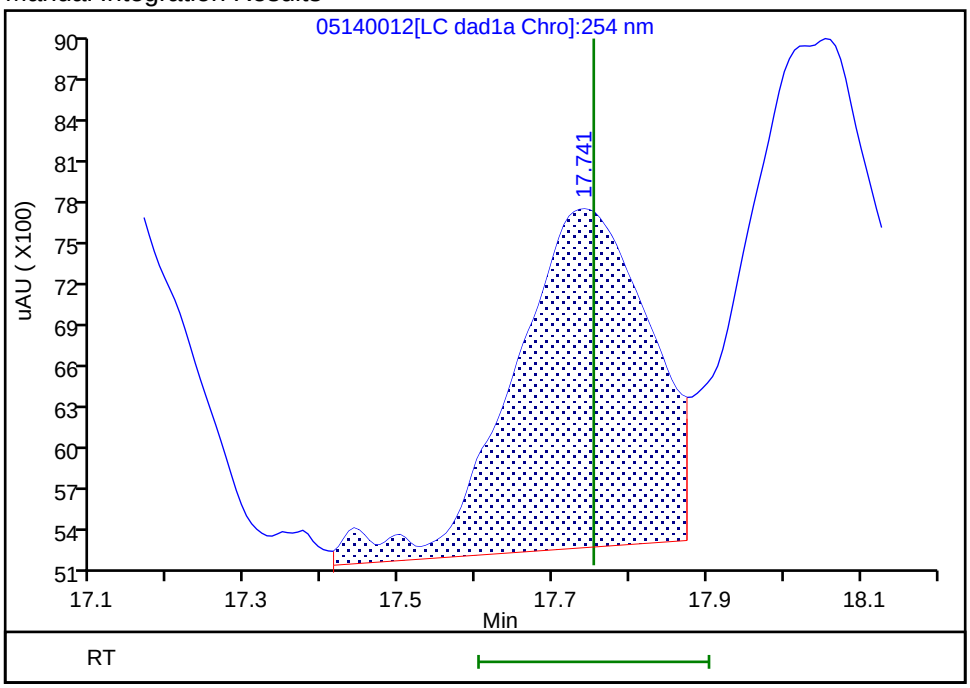
Processing Integration Results

RT: 17.74
Area: 34712
Amount: 0.117045
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 30586
Amount: 0.102525
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

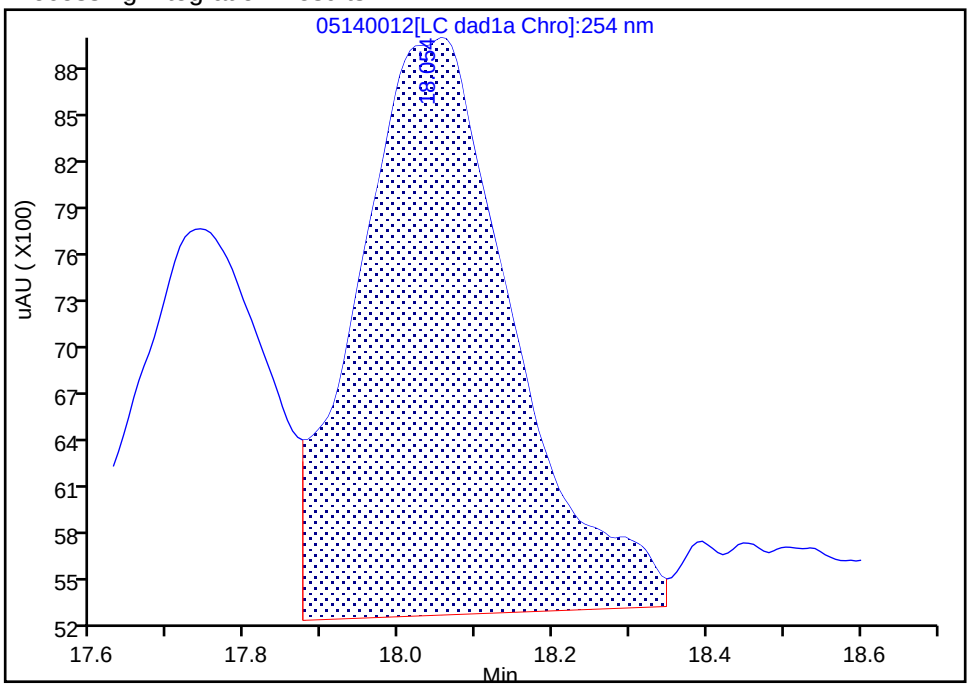
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

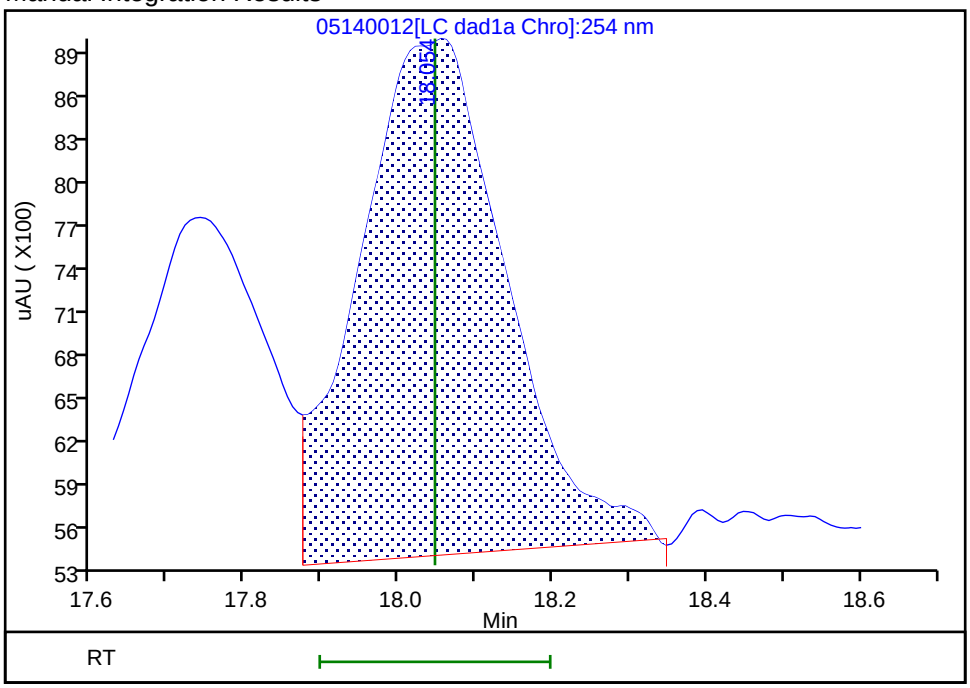
Processing Integration Results

RT: 18.05
Area: 52538
Amount: 0.110599
Amount Units: ug/ml



Manual Integration Results

RT: 18.05
Area: 47526
Amount: 0.102160
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

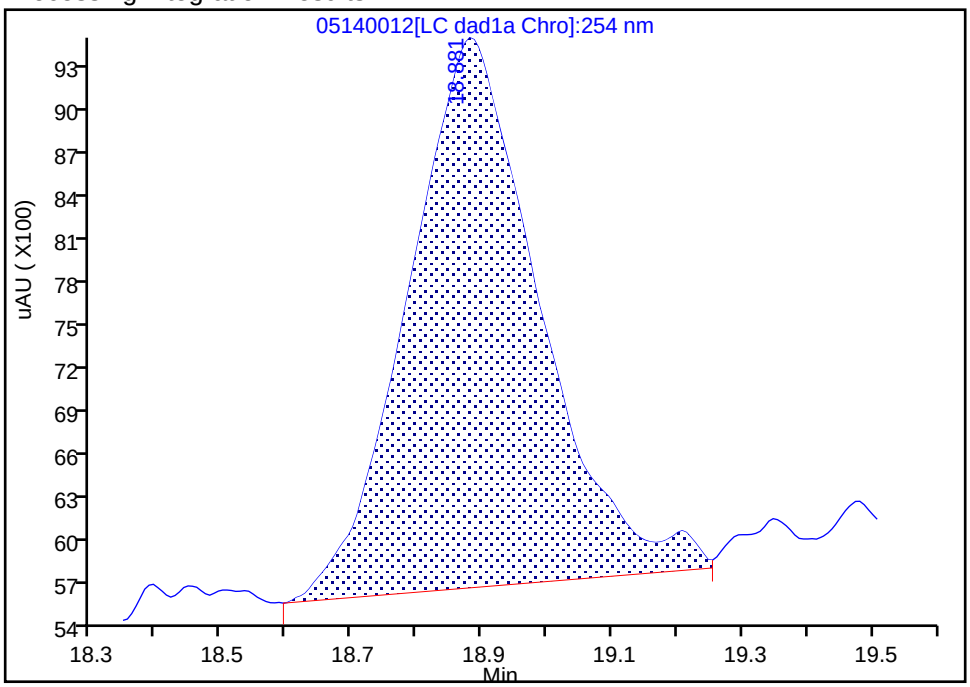
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

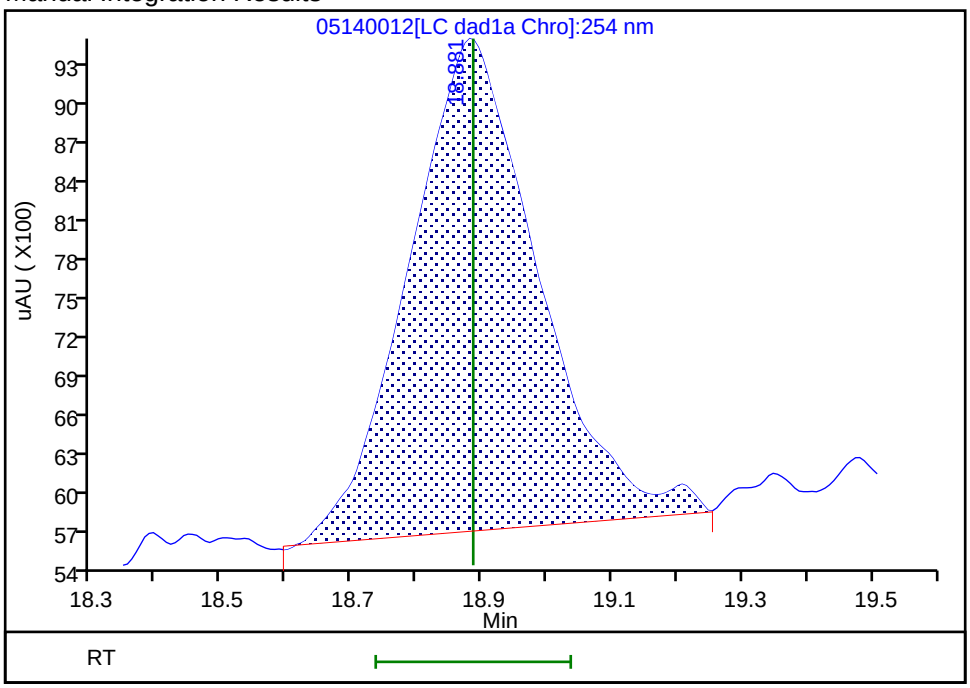
Processing Integration Results

RT: 18.88
Area: 52433
Amount: 0.109995
Amount Units: ug/ml



Manual Integration Results

RT: 18.88
Area: 51028
Amount: 0.108007
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

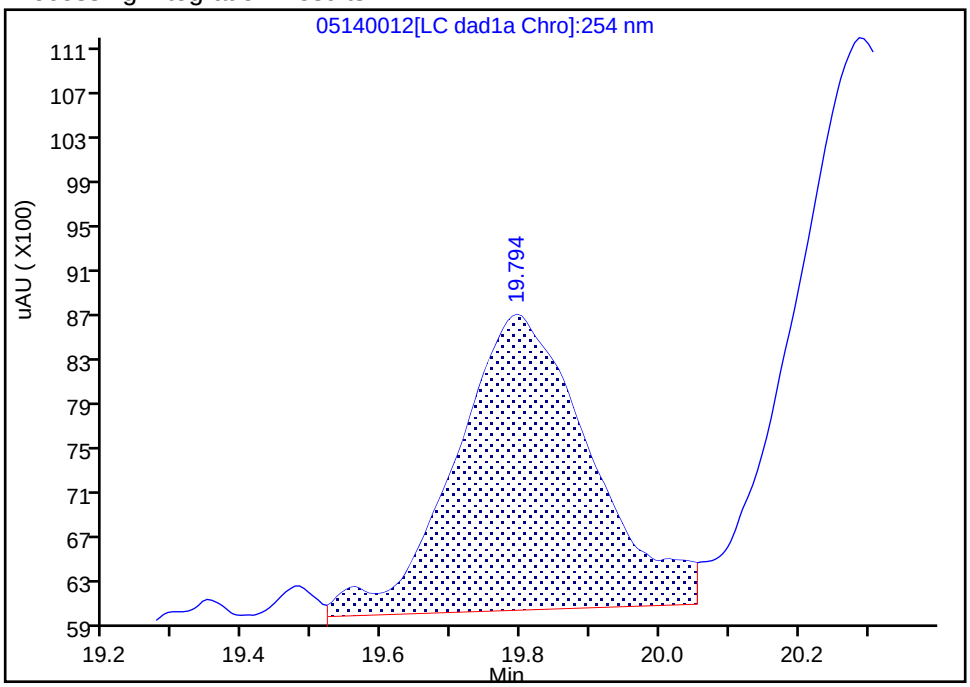
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

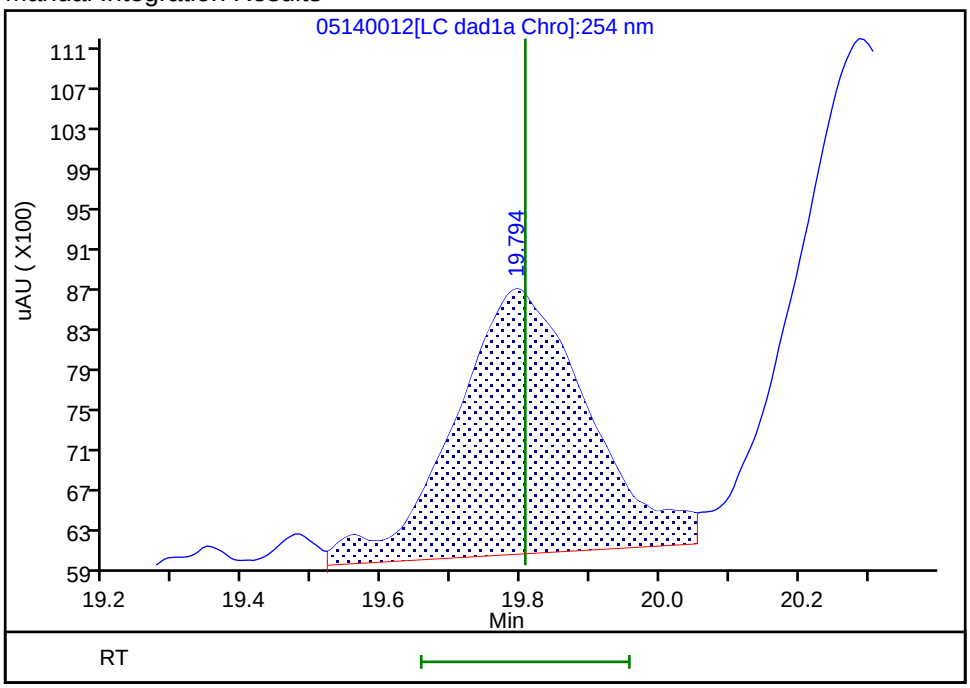
Processing Integration Results

RT: 19.79
Area: 35123
Amount: 0.102517
Amount Units: ug/ml



Manual Integration Results

RT: 19.79
Area: 34659
Amount: 0.104499
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

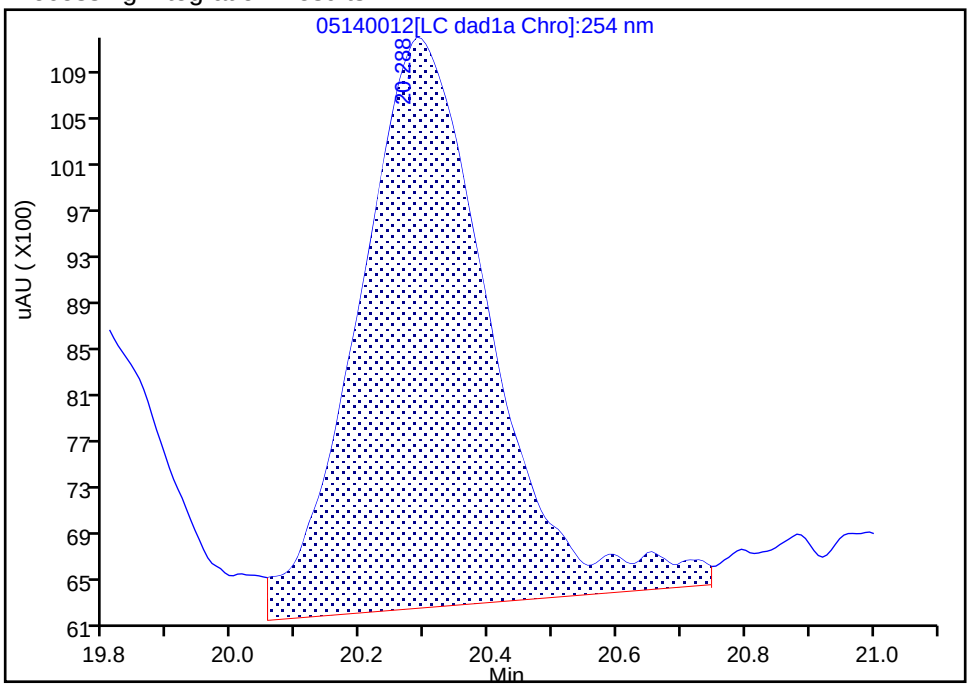
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

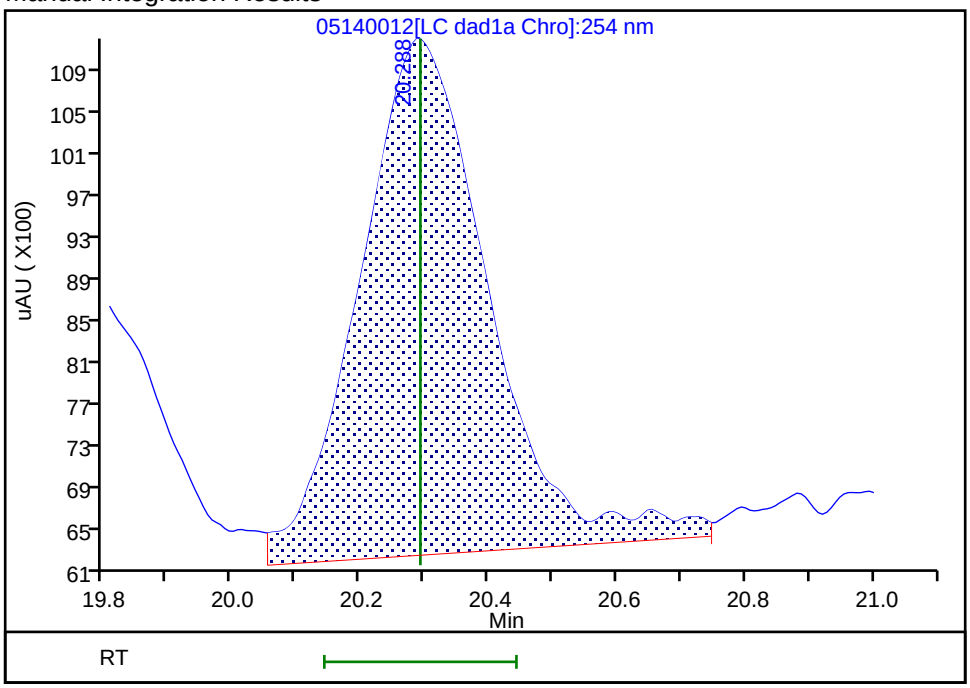
Processing Integration Results

RT: 20.29
Area: 69455
Amount: 0.105715
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 67500
Amount: 0.105450
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

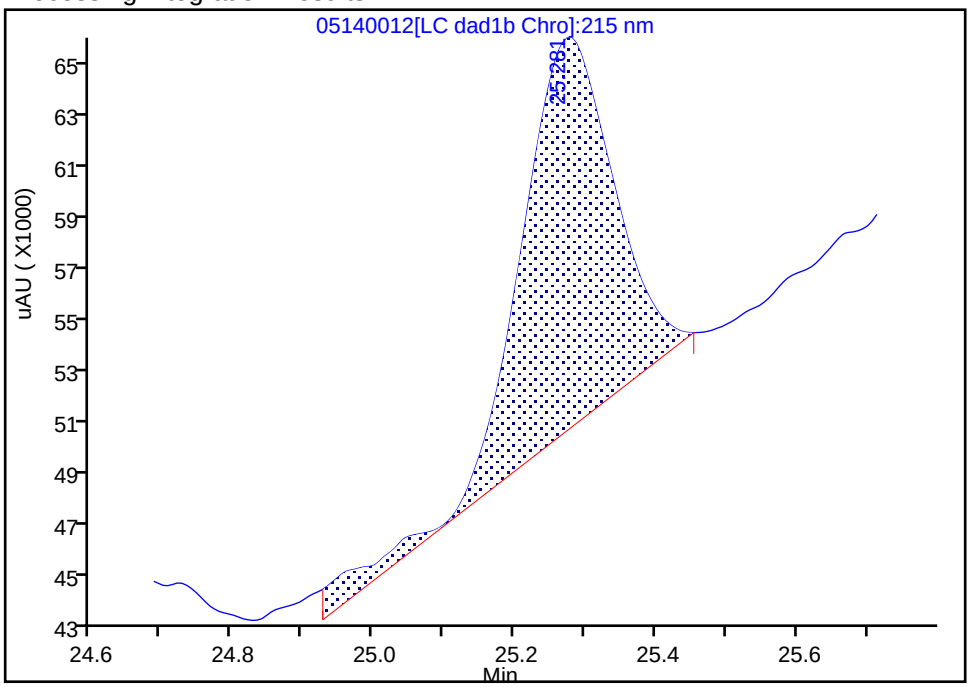
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

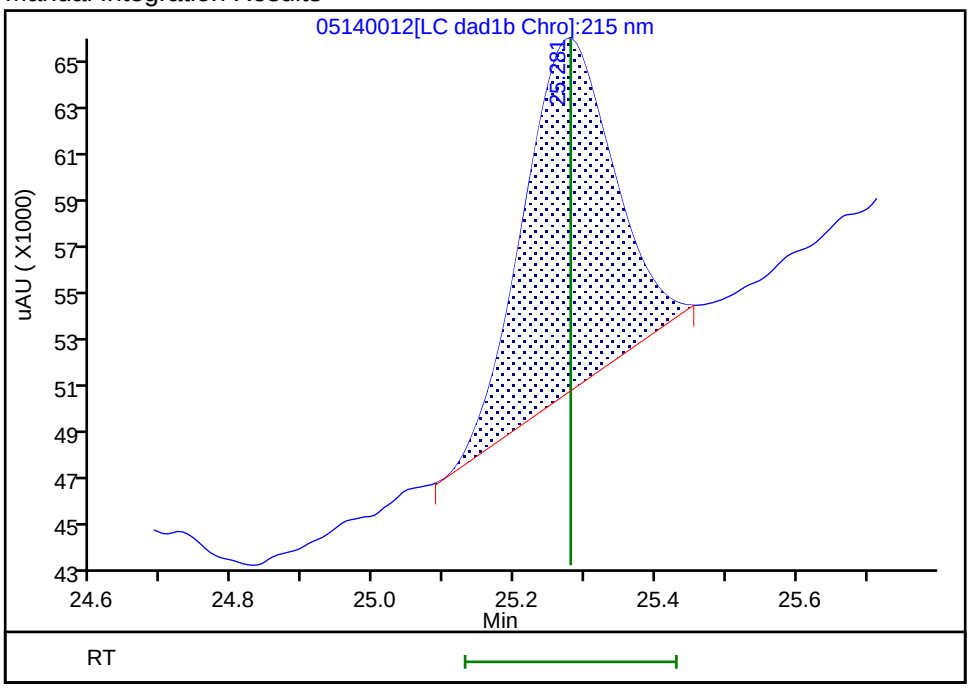
Processing Integration Results

RT: 25.28
Area: 139443
Amount: 1.011611
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 132172
Amount: 0.810643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:59

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140013.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-May-2020 19:46:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0091518-013
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.357	4.366	-0.009	22969	0.0500	0.0535	
2 2,4-diamino-6-nitrotoluene	1	4.851	4.880	-0.029	16562	0.0500	0.0464	
5 2,4,6-Trinitrophenol	1	6.331	6.300	0.031	9462	0.0500	0.0488	a
6 HMX	1	6.984	6.986	-0.002	12646	0.0500	0.0414	
8 RDX	1	9.184	9.173	0.011	15119	0.0500	0.0619	
9 Nitrobenzene	1	12.110	12.106	0.004	28424	0.0502	0.0647	
$ 10 1,2-Dinitrobenzene	1	13.037	13.040	-0.003	18744	0.0500	0.0610	M
11 3,5-Dinitroaniline	1	14.890	14.886	0.004	27916	0.0500	0.0518	M
12 1,3-Dinitrobenzene	1	15.544	15.553	-0.009	37161	0.0501	0.0551	M
13 Nitroglycerin	2	15.844	15.853	-0.009	64042	0.5000	0.5050	M
14 o-Nitrotoluene	1	16.550	16.533	0.017	16003	0.0500	0.0586	M
15 p-Nitrotoluene	1	16.837	16.820	0.017	15492	0.0501	0.0643	M
16 4-Amino-2,6-dinitrotoluene	1	17.157	17.146	0.011	22118	0.0501	0.0641	M
17 m-Nitrotoluene	1	17.724	17.753	-0.029	19280	0.0501	0.0646	M
18 2-Amino-4,6-dinitrotoluene	1	18.030	18.046	-0.016	28982	0.0502	0.0623	M
19 1,3,5-Trinitrobenzene	1	18.864	18.886	-0.022	26649	0.0501	0.0564	M
20 2,6-Dinitrotoluene	1	19.817	19.806	0.011	19107	0.0502	0.0507	M
21 2,4-Dinitrotoluene	1	20.290	20.293	-0.003	37302	0.0502	0.0583	M
22 Tetryl	1	23.557	23.553	0.004	20202	0.0501	0.0548	
23 2,4,6-Trinitrotoluene	1	24.637	24.653	-0.016	28366	0.0502	0.0628	
24 PETN	2	25.277	25.280	-0.003	102120	0.5000	0.5782	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

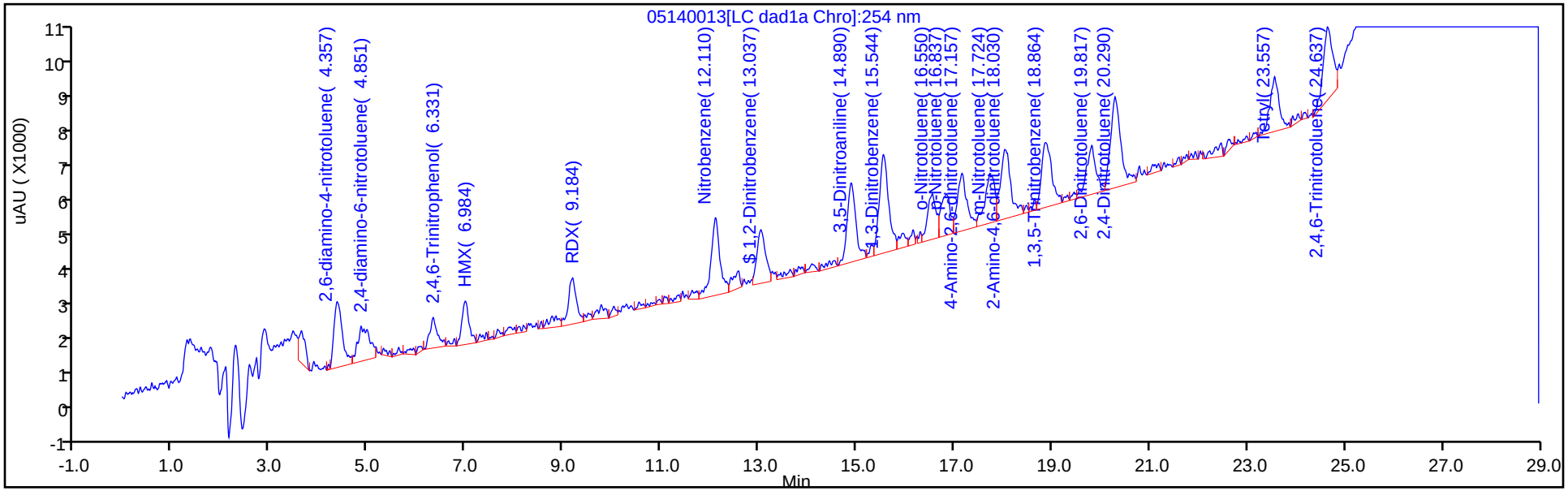
8330IntermStk_00064	Amount Added:	5.00	Units: uL
8330_ADDs_00026	Amount Added:	2.50	Units: uL

Report Date: 15-May-2020 12:00:58 Chrom Revision: 2.3 05-May-2020 17:48:18

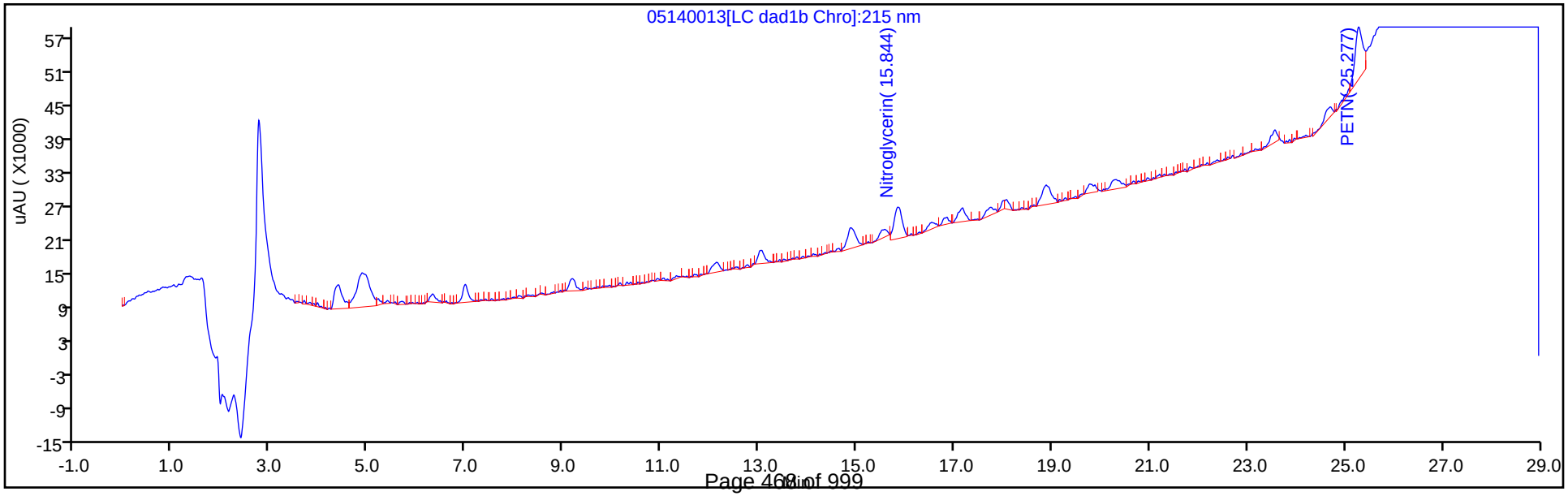
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 3			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

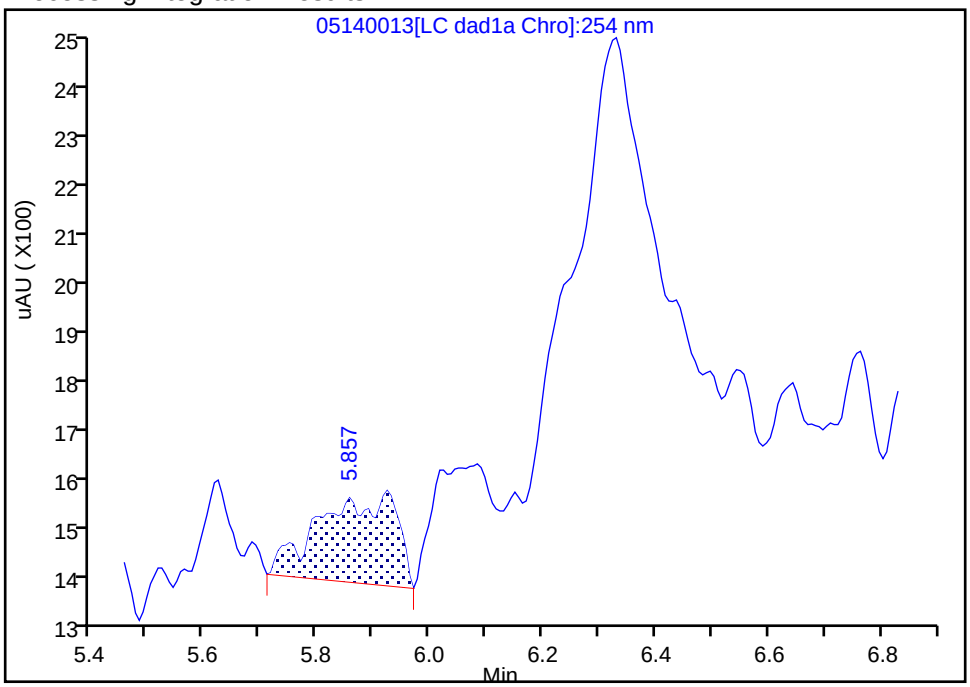
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

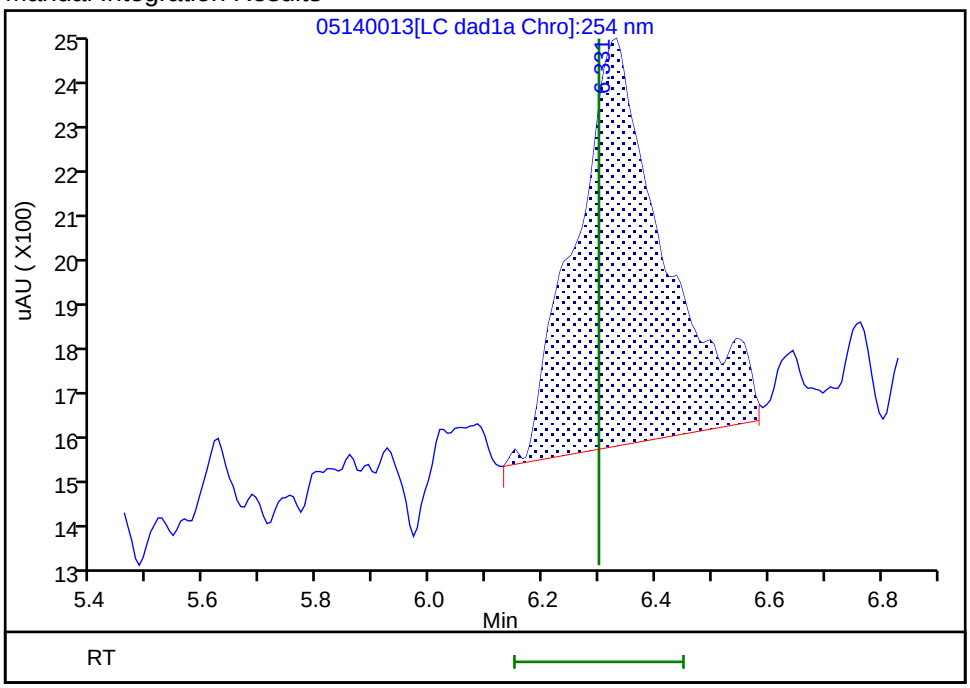
Processing Integration Results

RT: 5.86
Area: 1615
Amount: 0.011701
Amount Units: ug/ml



Manual Integration Results

RT: 6.33
Area: 9462
Amount: 0.048821
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:16
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

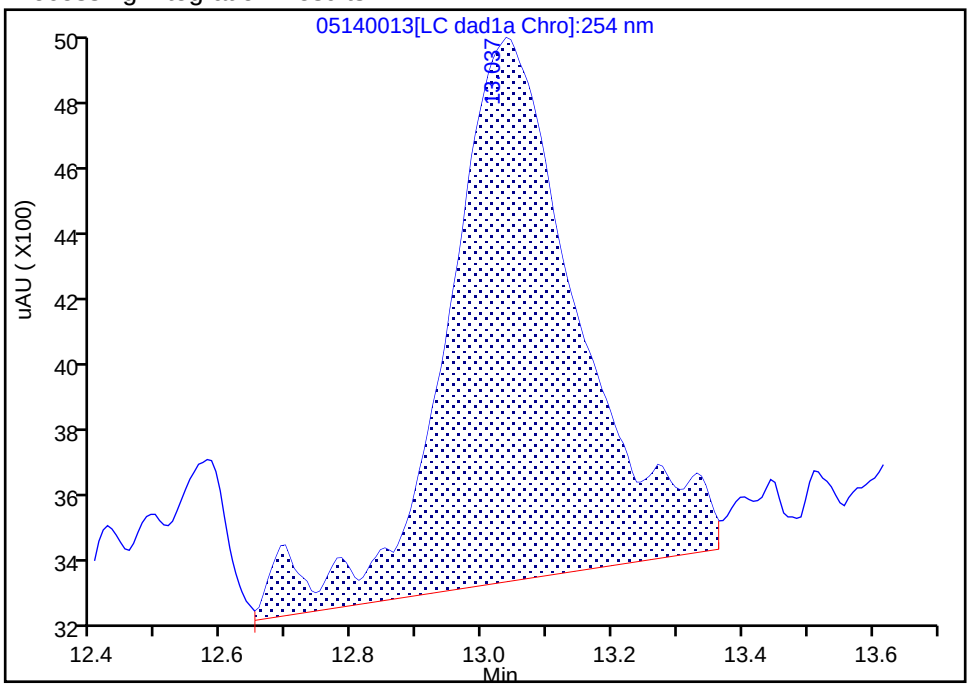
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

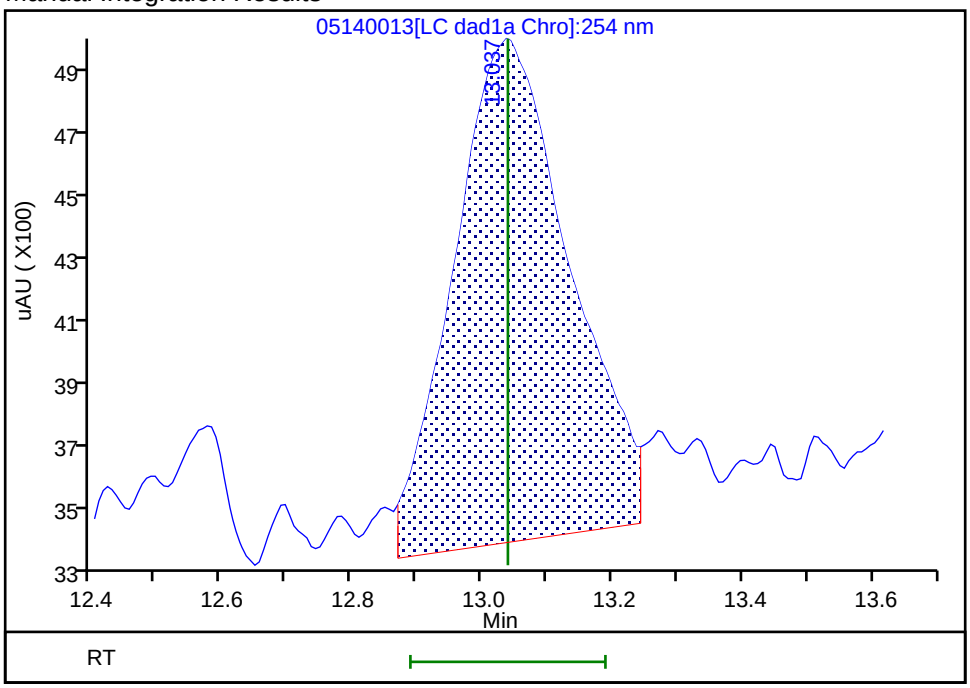
Processing Integration Results

RT: 13.04
Area: 21320
Amount: 0.066490
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 18744
Amount: 0.060979
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

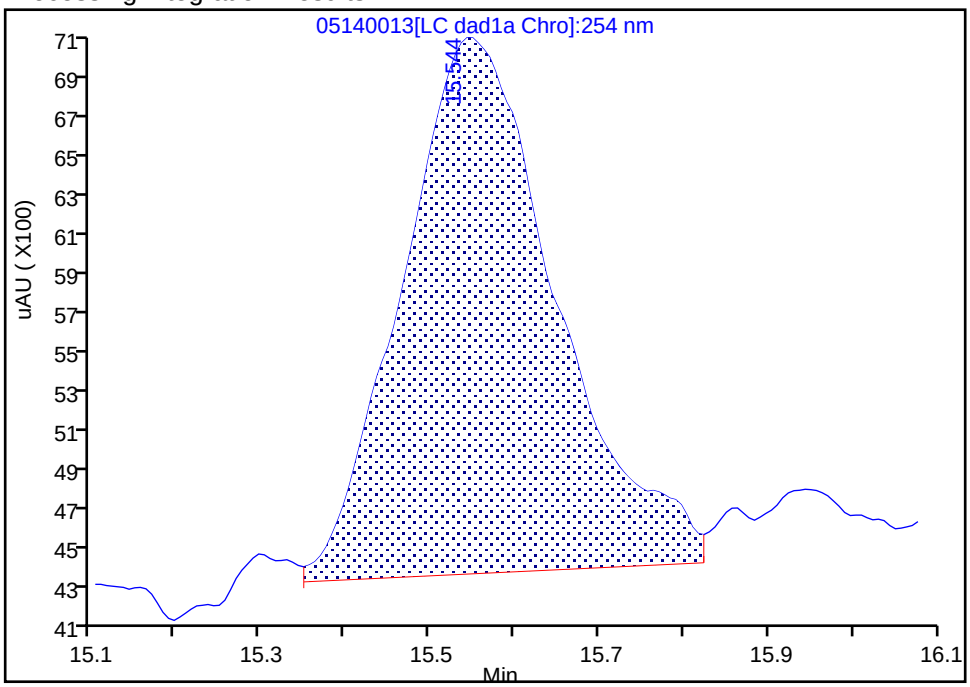
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

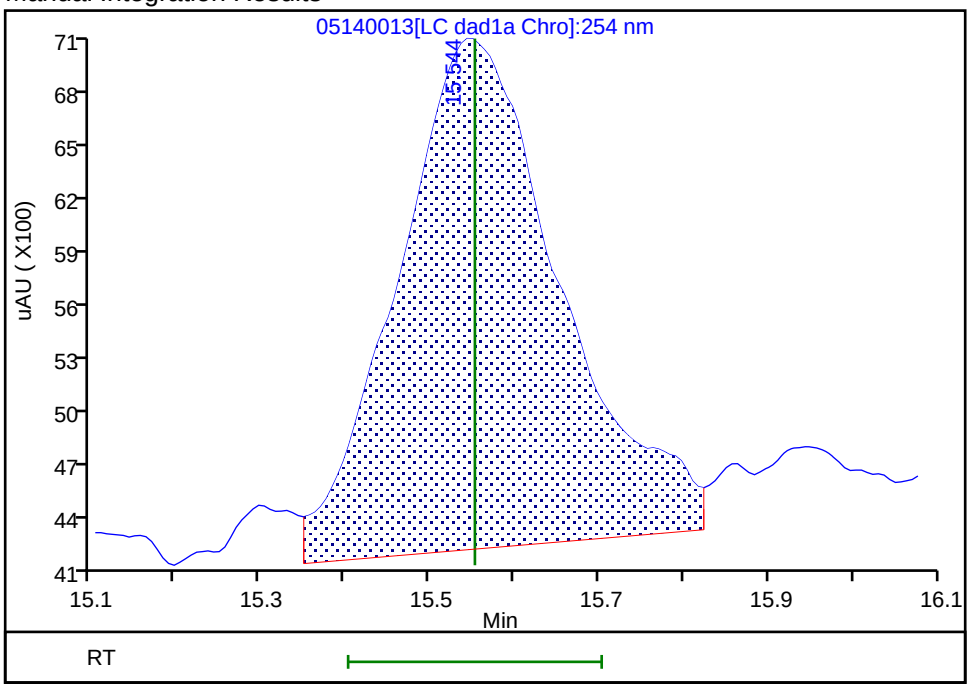
Processing Integration Results

RT: 15.54
Area: 33327
Amount: 0.049753
Amount Units: ug/ml



Manual Integration Results

RT: 15.54
Area: 37161
Amount: 0.055120
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

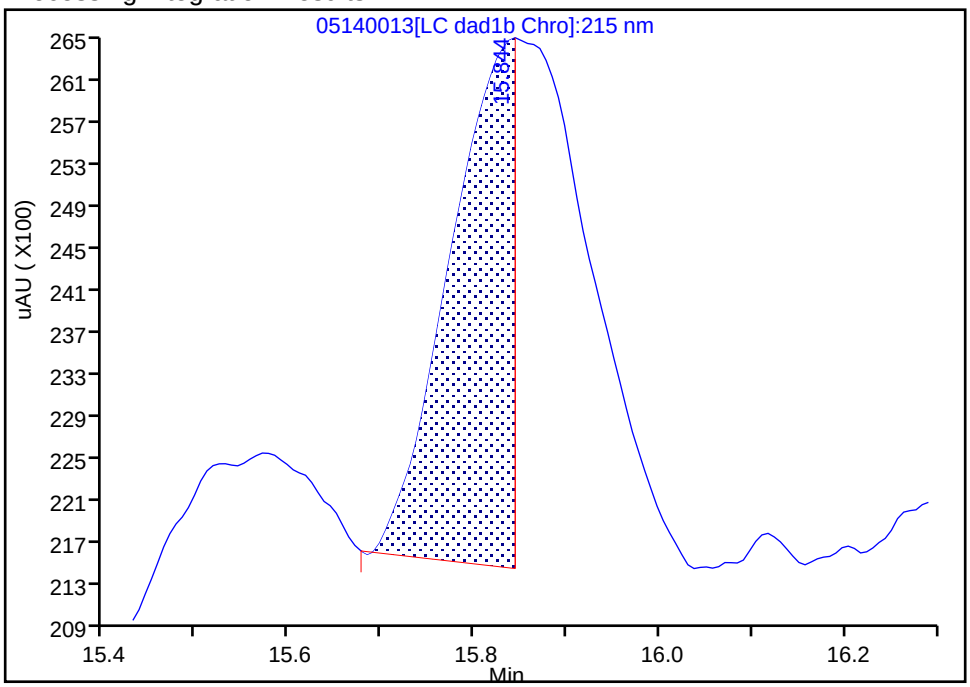
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

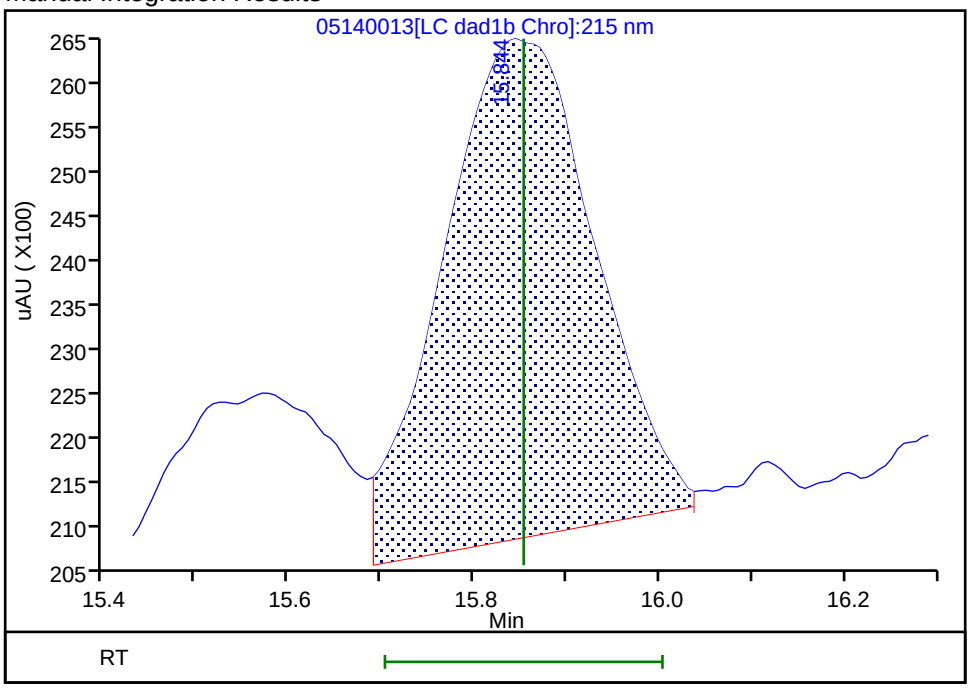
Processing Integration Results

RT: 15.84
Area: 23753
Amount: 0.203485
Amount Units: ug/ml



Manual Integration Results

RT: 15.84
Area: 64042
Amount: 0.505050
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

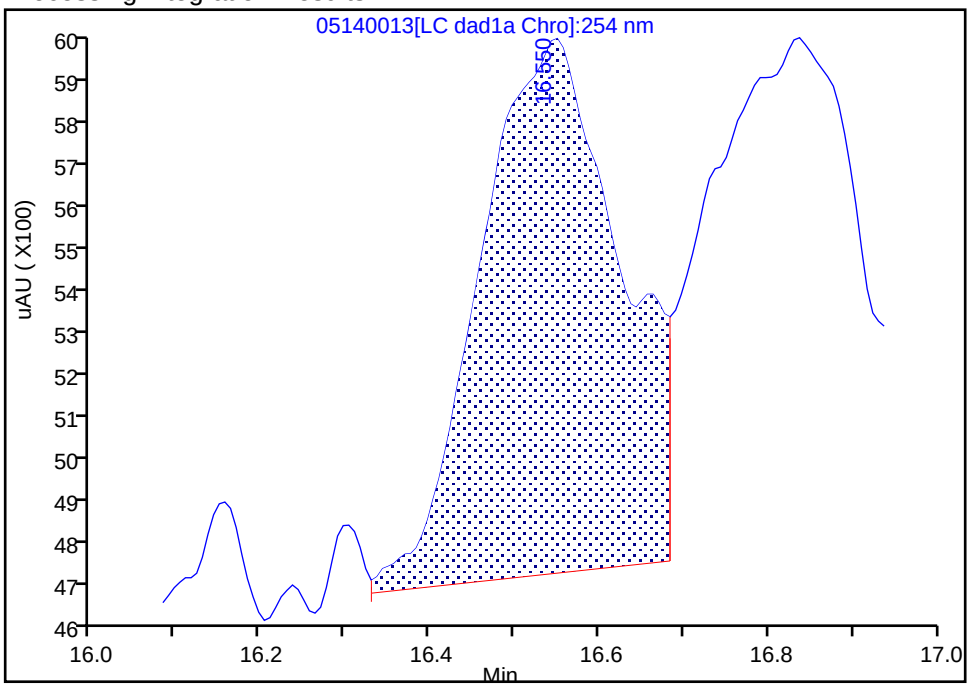
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

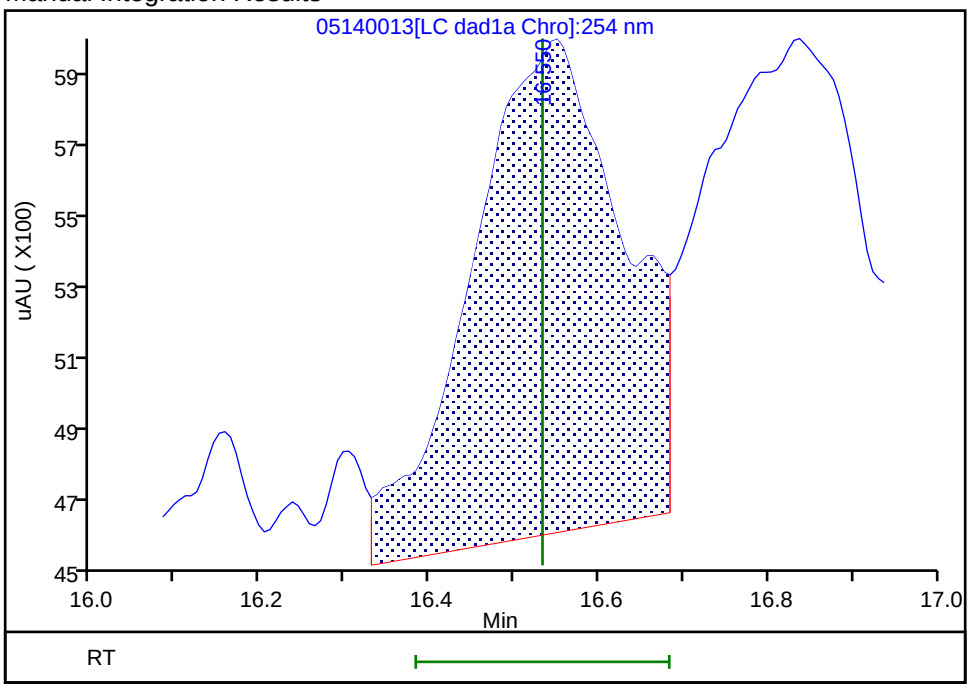
Processing Integration Results

RT: 16.55
Area: 13586
Amount: 0.049463
Amount Units: ug/ml



Manual Integration Results

RT: 16.55
Area: 16003
Amount: 0.058627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

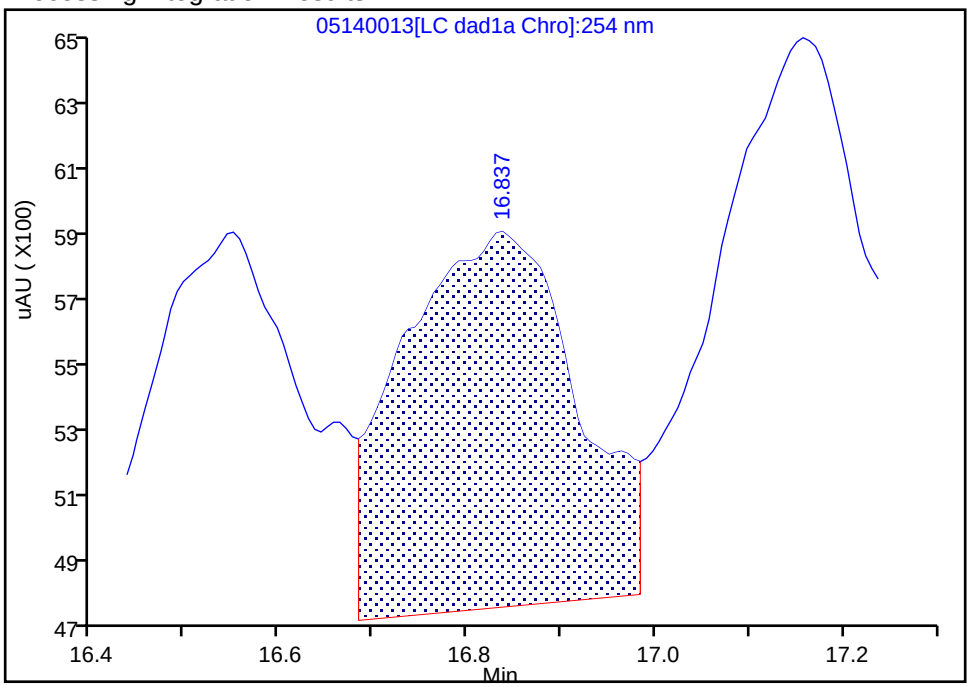
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

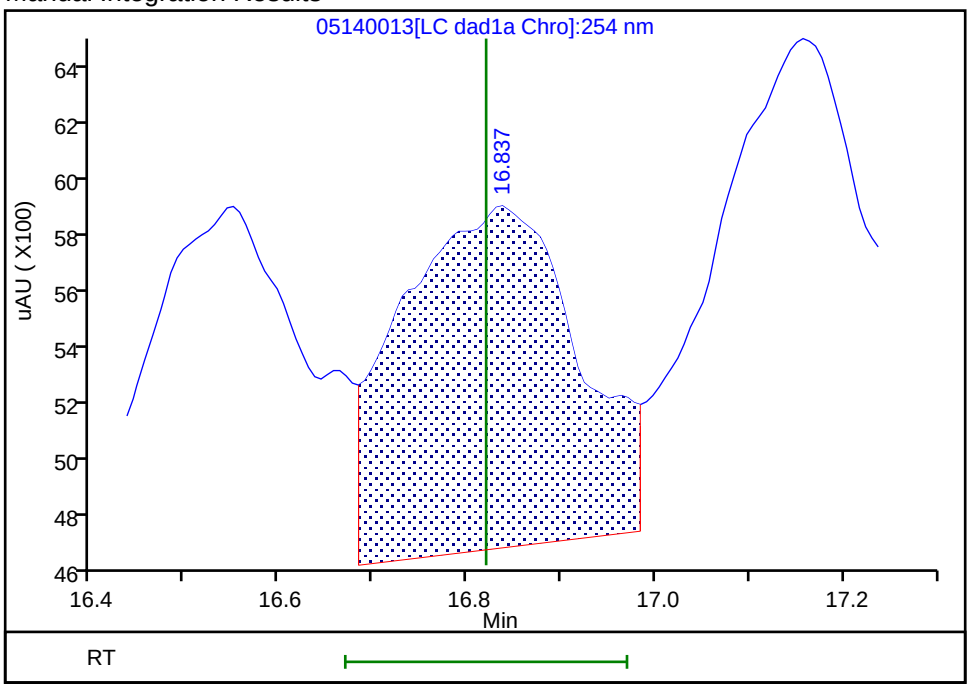
Processing Integration Results

RT: 16.84
Area: 14394
Amount: 0.057129
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 15492
Amount: 0.064314
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

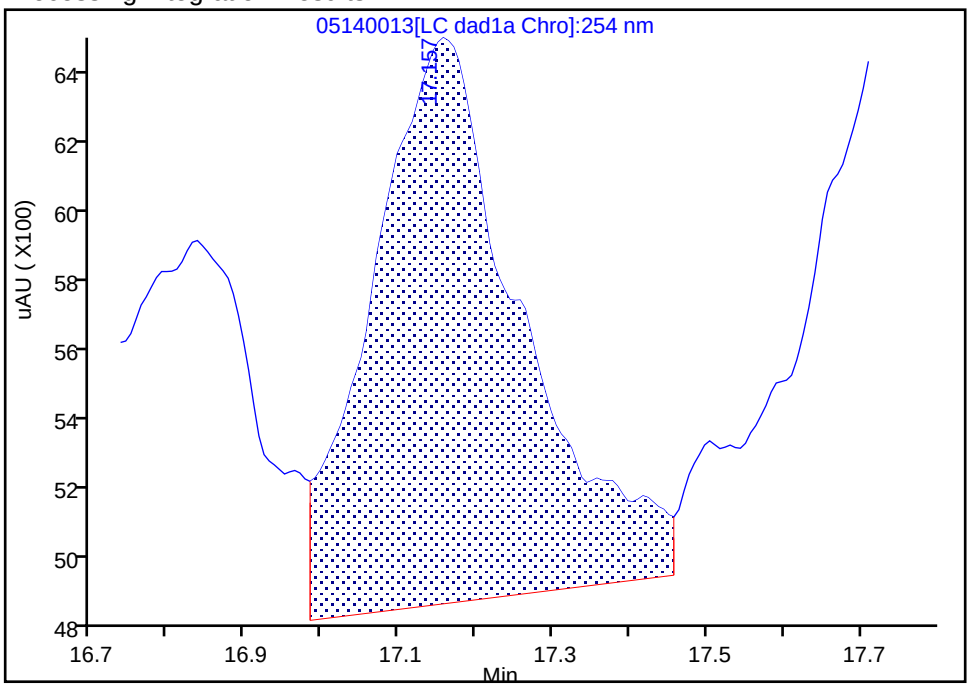
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

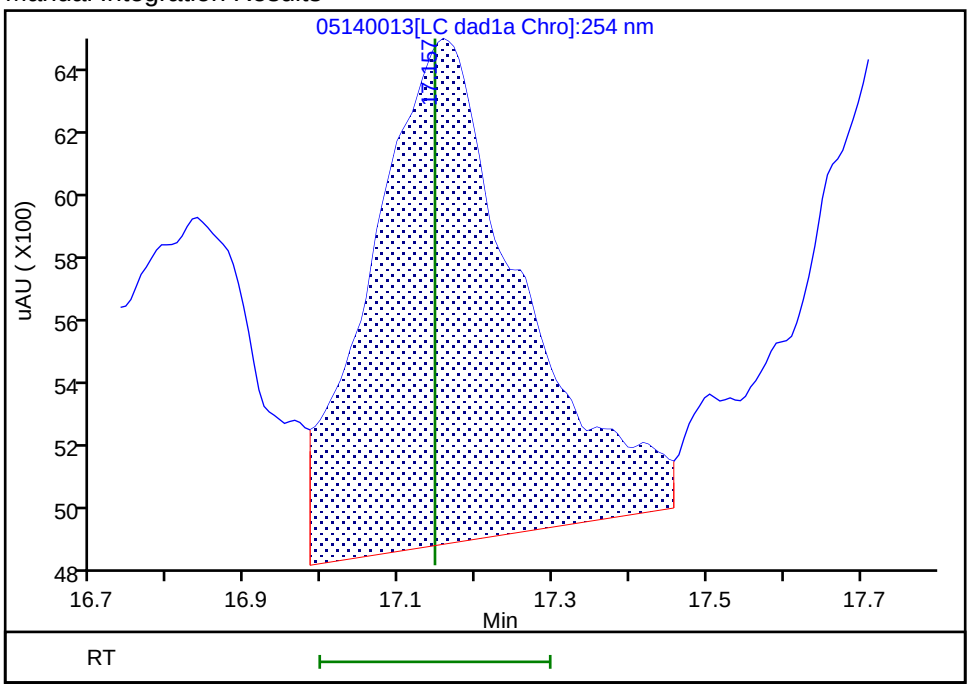
Processing Integration Results

RT: 17.16
Area: 21749
Amount: 0.062679
Amount Units: ug/ml



Manual Integration Results

RT: 17.16
Area: 22118
Amount: 0.064067
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

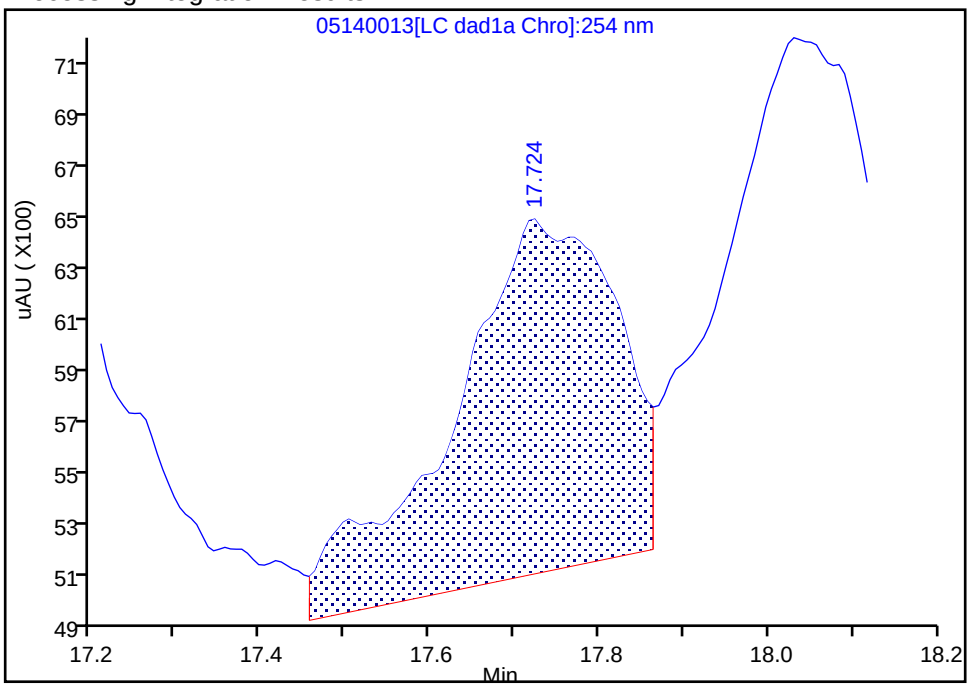
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

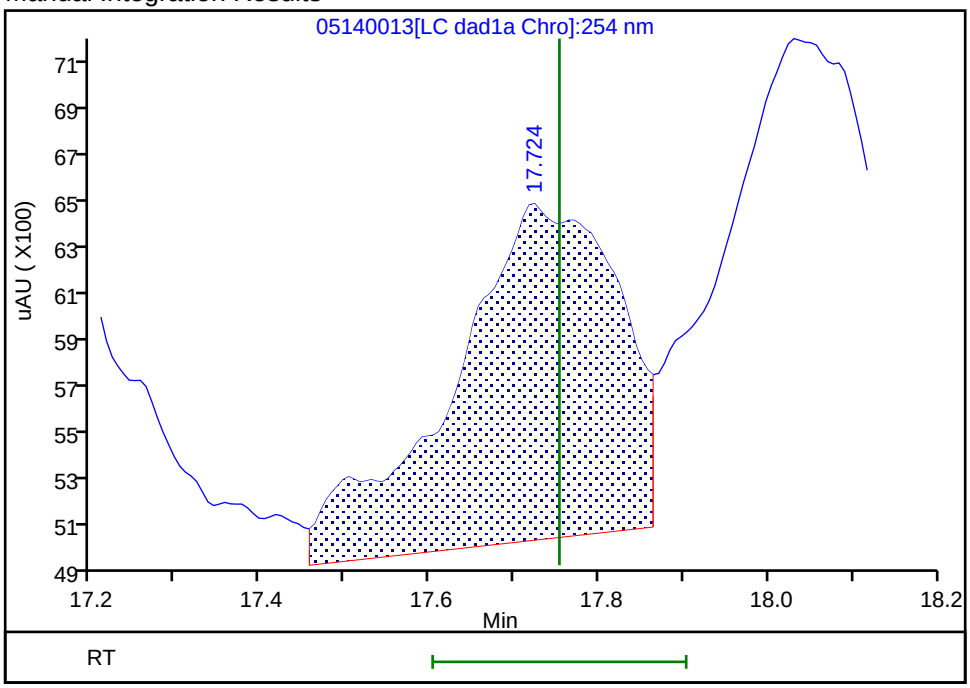
Processing Integration Results

RT: 17.72
Area: 18317
Amount: 0.062732
Amount Units: ug/ml



Manual Integration Results

RT: 17.72
Area: 19280
Amount: 0.064627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

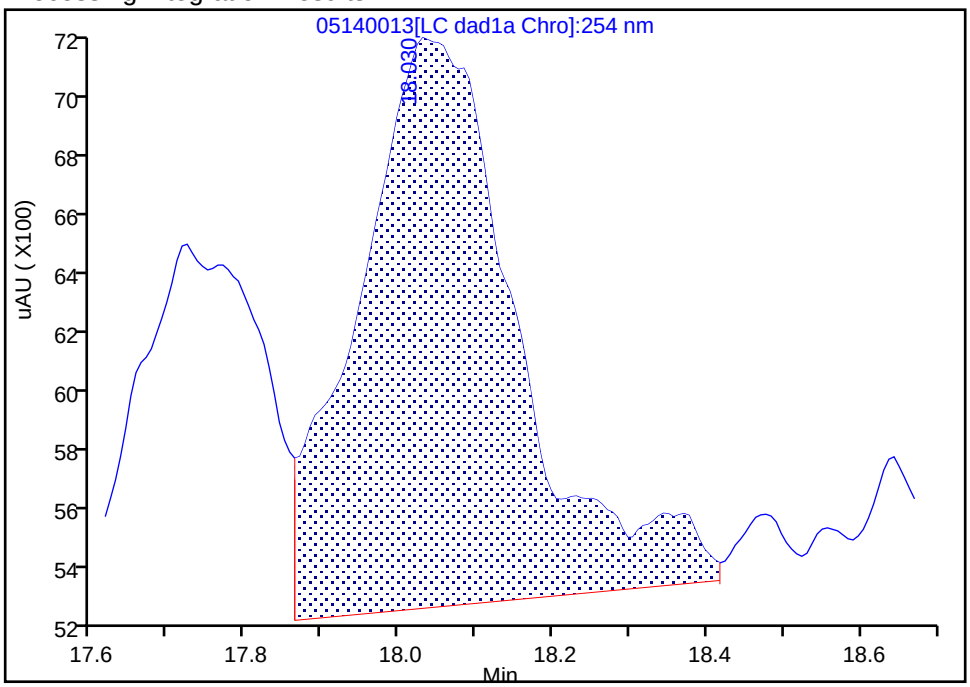
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

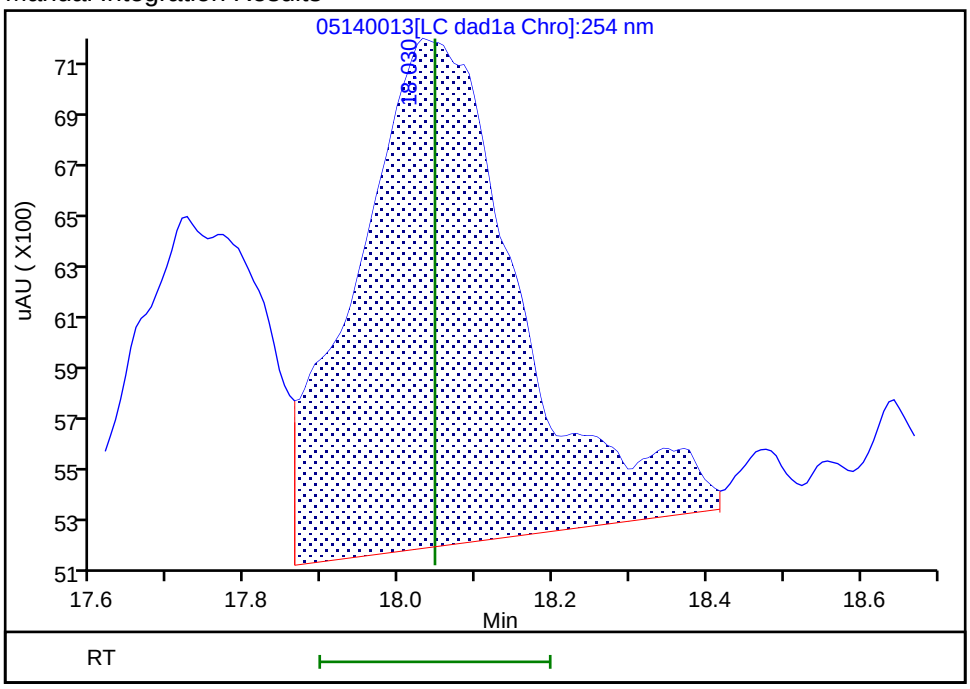
Processing Integration Results

RT: 18.03
Area: 27239
Amount: 0.055134
Amount Units: ug/ml



Manual Integration Results

RT: 18.03
Area: 28982
Amount: 0.062299
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

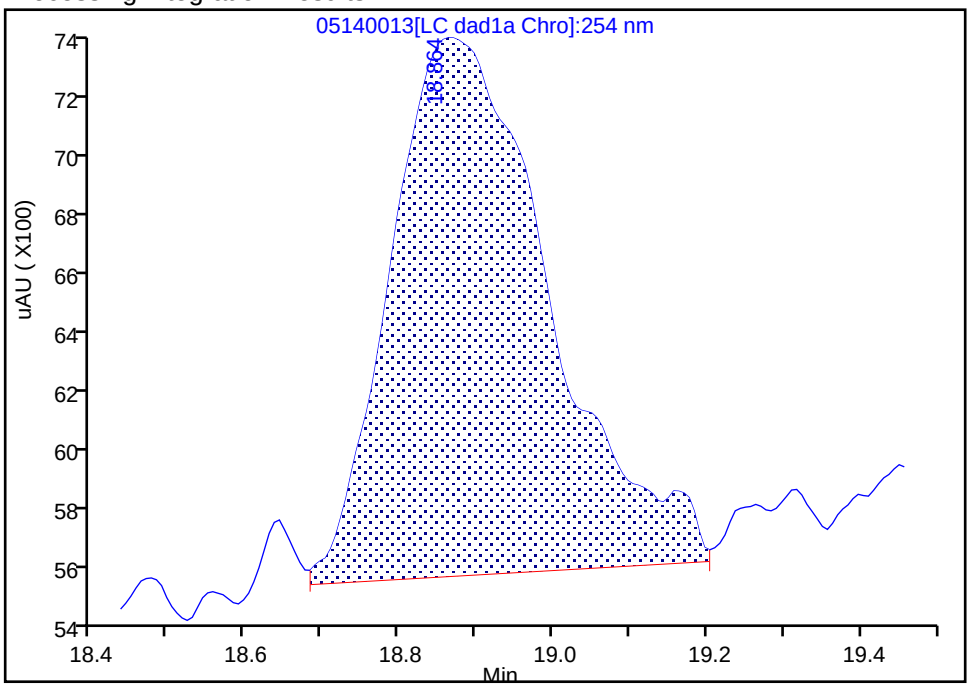
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

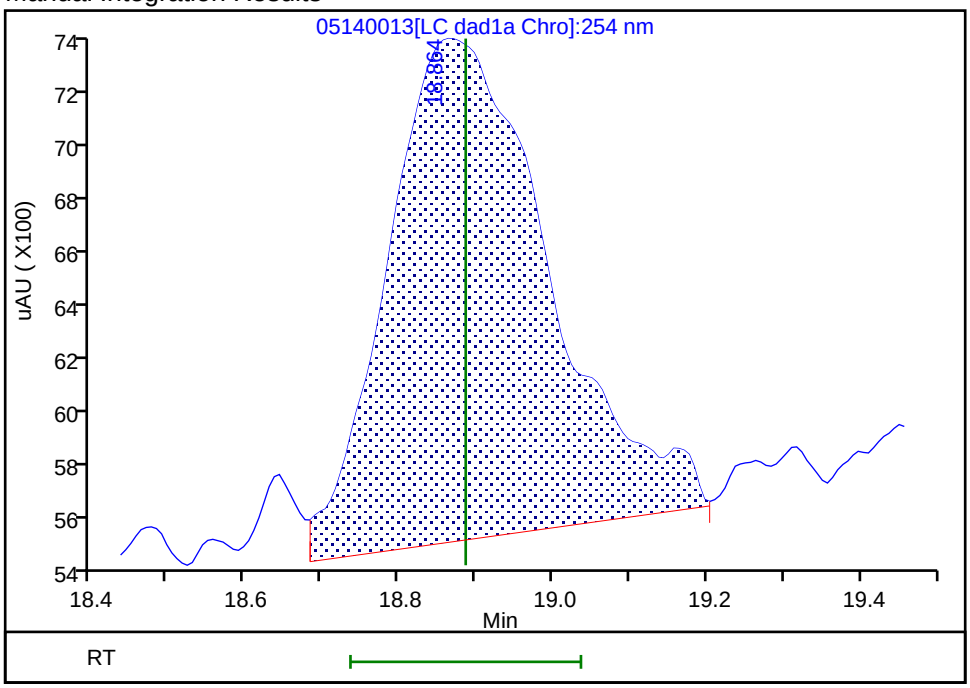
Processing Integration Results

RT: 18.86
Area: 25370
Amount: 0.053396
Amount Units: ug/ml



Manual Integration Results

RT: 18.86
Area: 26649
Amount: 0.056406
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

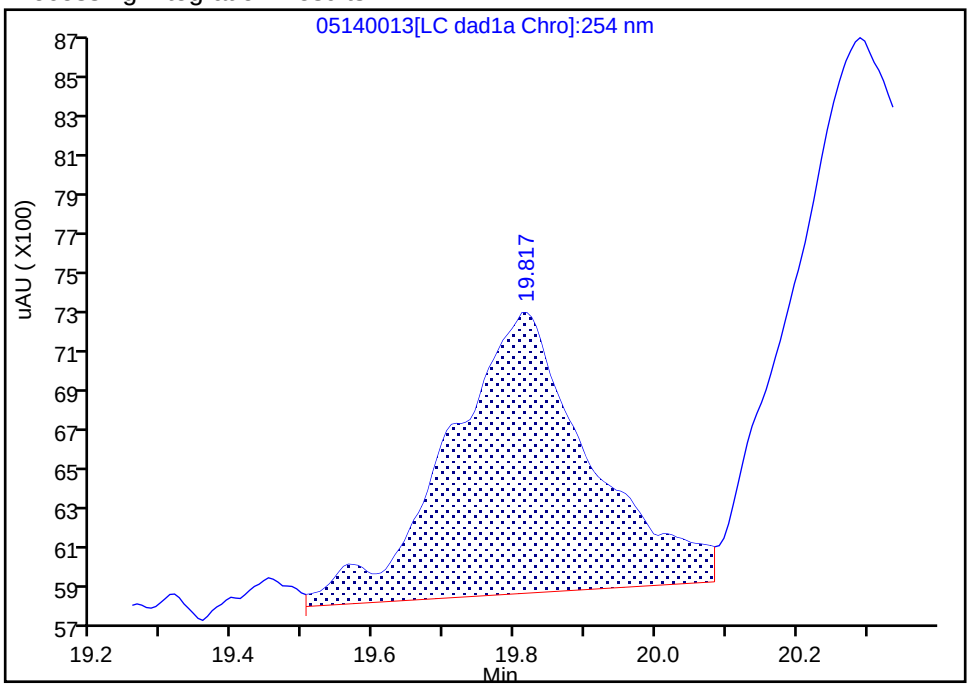
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

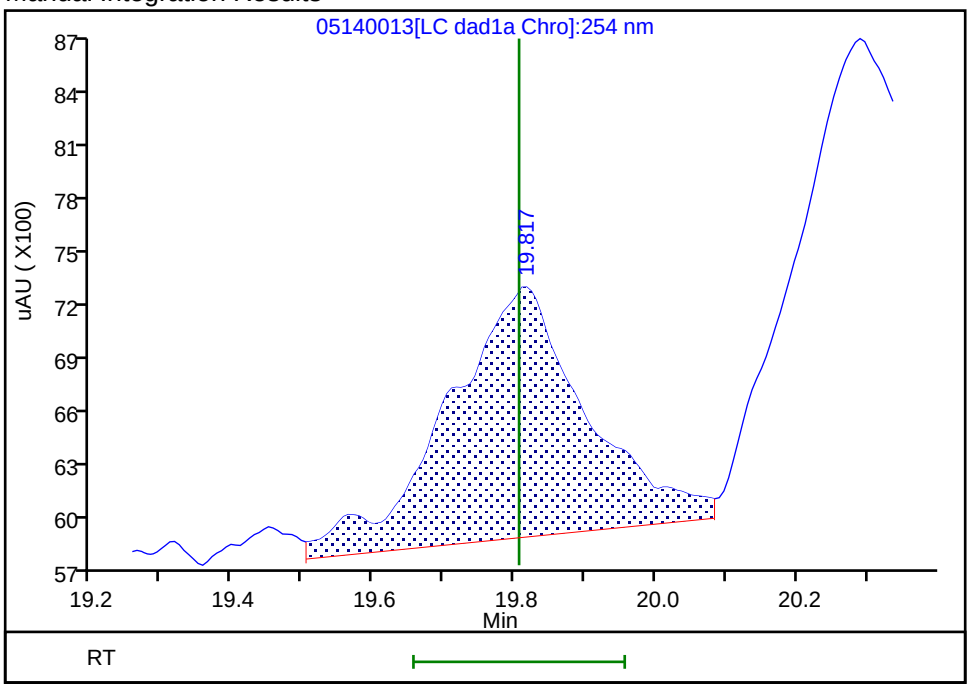
Processing Integration Results

RT: 19.82
Area: 19664
Amount: 0.057481
Amount Units: ug/ml



Manual Integration Results

RT: 19.82
Area: 19107
Amount: 0.050727
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

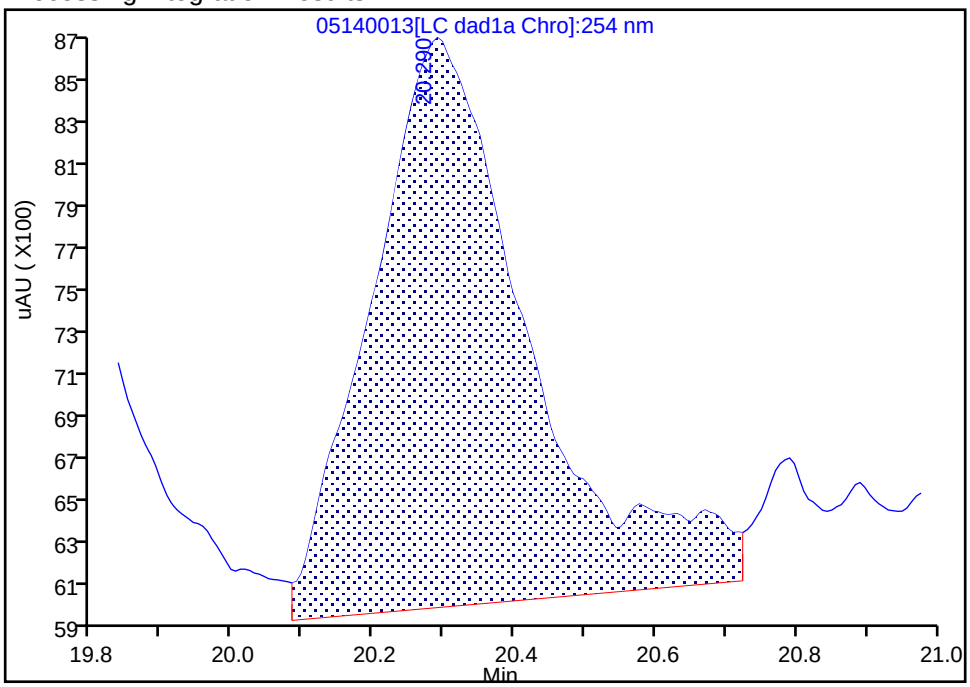
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

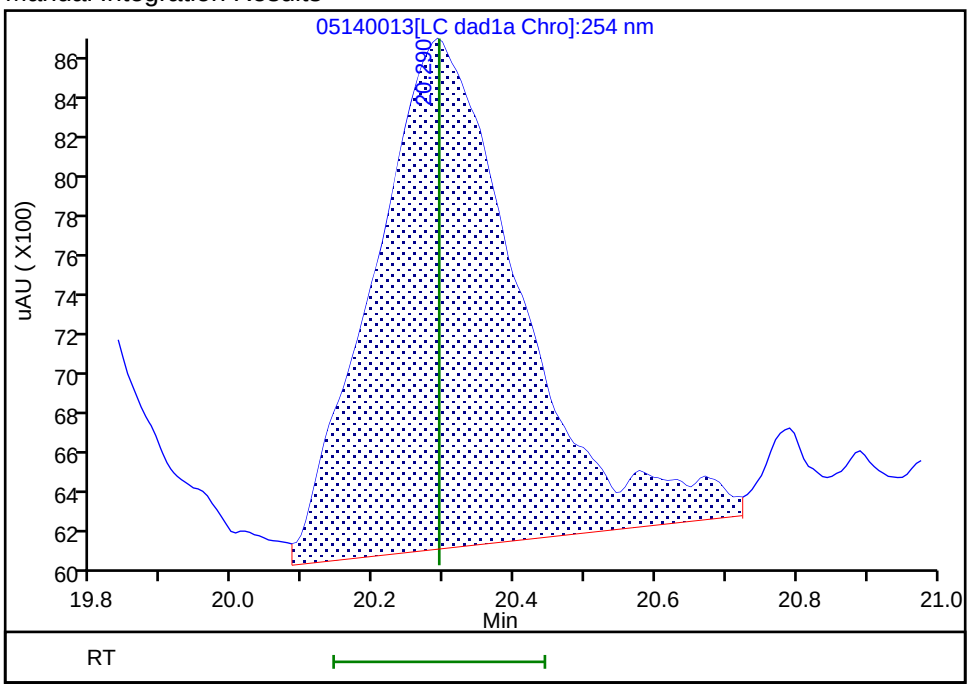
Processing Integration Results

RT: 20.29
Area: 41123
Amount: 0.062799
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 37302
Amount: 0.058274
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

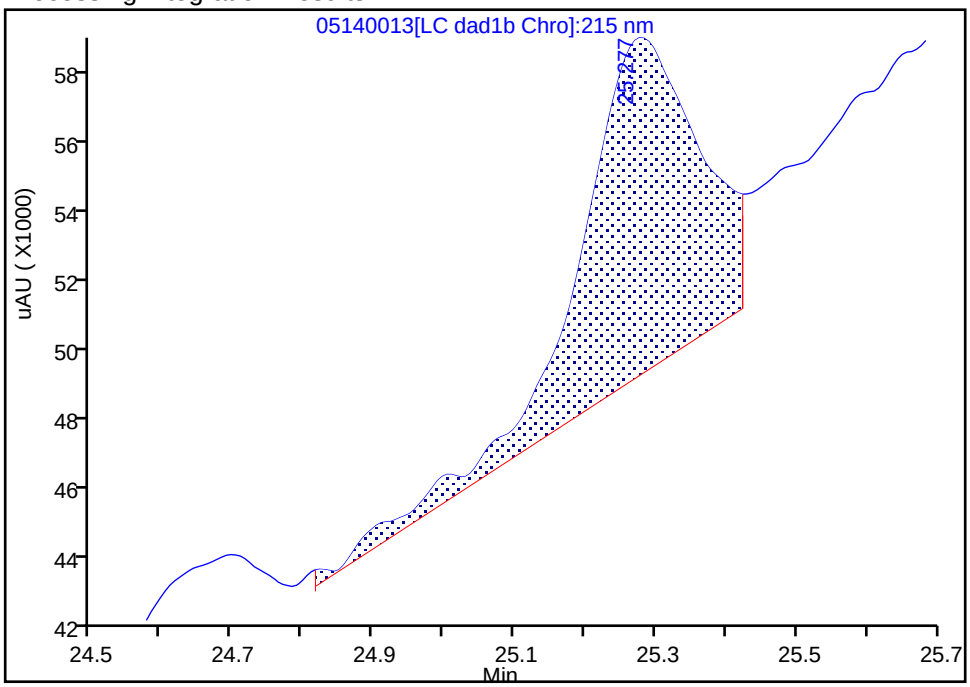
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

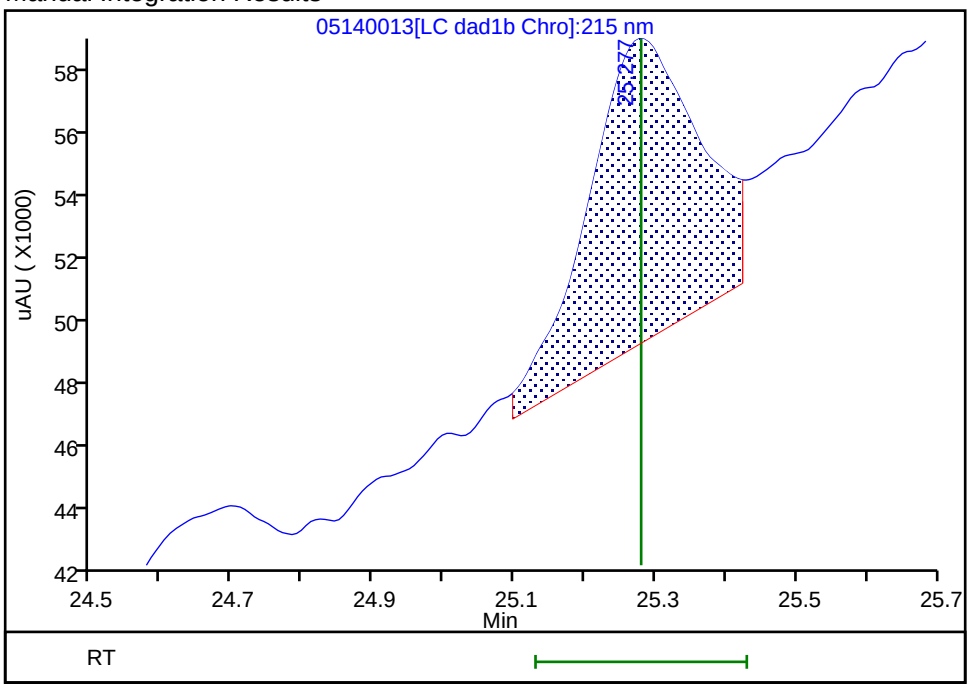
Processing Integration Results

RT: 25.28
Area: 109947
Amount: 0.773174
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 102120
Amount: 0.578199
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:48

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140014.D
Lims ID: IC FULL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-May-2020 20:21:33 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 2
Misc. Info.: 280-0091518-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.375	4.366	0.009	10106	0.0200	0.0235	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.880	-0.025	9147	0.0200	0.0152	
5 2,4,6-Trinitrophenol	1	6.322	6.300	0.022	5683	0.0250	0.0293	a
6 HMX	1	6.982	6.986	-0.004	10018	0.0250	0.0265	
8 RDX	1	9.095	9.173	-0.078	6286	0.0250	0.0257	
9 Nitrobenzene	1	12.095	12.106	-0.011	10325	0.0251	0.0235	
$ 10 1,2-Dinitrobenzene	1	13.022	13.040	-0.018	8436	0.0250	0.0238	M
11 3,5-Dinitroaniline	1	14.862	14.886	-0.024	12305	0.0200	0.0197	
12 1,3-Dinitrobenzene	1	15.542	15.553	-0.011	16280	0.0251	0.0241	
13 Nitroglycerin	2	15.855	15.853	0.002	26546	0.2500	0.2093	
14 o-Nitrotoluene	1	16.515	16.533	-0.018	6812	0.0250	0.0250	
15 p-Nitrotoluene	1	16.795	16.820	-0.025	5374	0.0251	0.0223	
16 4-Amino-2,6-dinitrotoluene	1	17.155	17.146	0.009	9369	0.0250	0.0271	
17 m-Nitrotoluene	1	17.748	17.753	-0.005	6920	0.0250	0.0232	
18 2-Amino-4,6-dinitrotoluene	1	18.048	18.046	0.002	10376	0.0251	0.0223	
19 1,3,5-Trinitrobenzene	1	18.855	18.886	-0.031	10822	0.0251	0.0229	
20 2,6-Dinitrotoluene	1	19.828	19.806	0.022	11618	0.0251	0.0248	
21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	16811	0.0251	0.0263	
22 Tetryl	1	23.529	23.553	-0.024	9874	0.0251	0.0268	
23 2,4,6-Trinitrotoluene	1	24.682	24.653	0.029	11547	0.0251	0.0209	
24 PETN	2	25.282	25.280	0.002	20453	0.2500	-0.0535	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

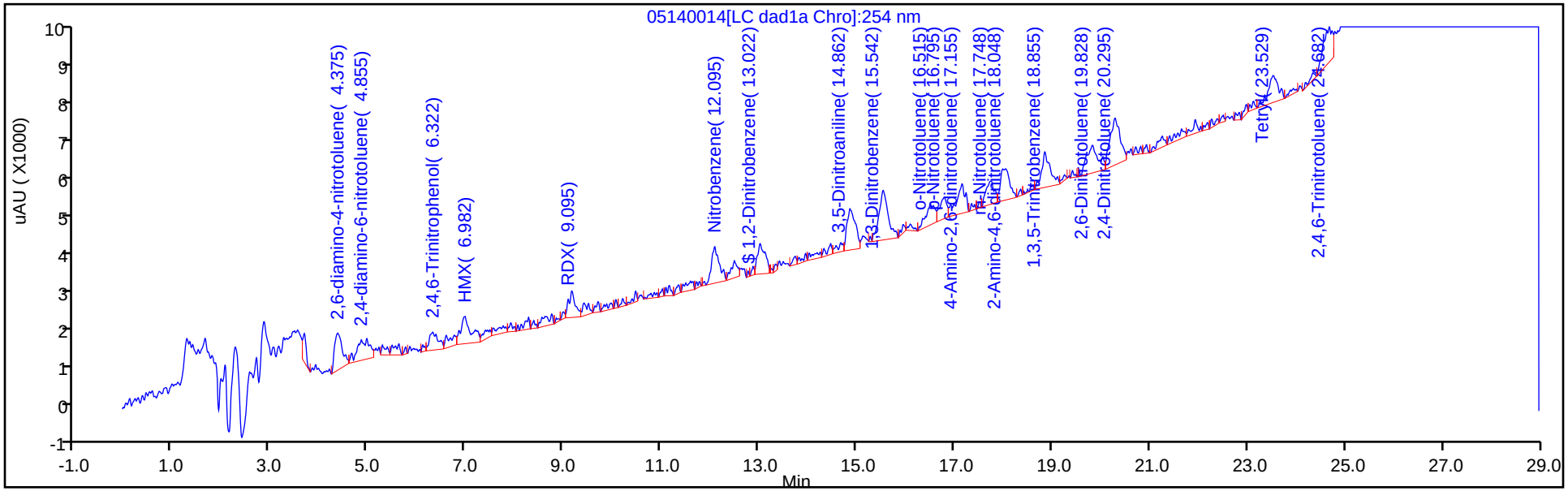
8330IntermStk_00064	Amount Added:	2.50	Units: uL
8330_ADDs_00026	Amount Added:	1.00	Units: uL

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

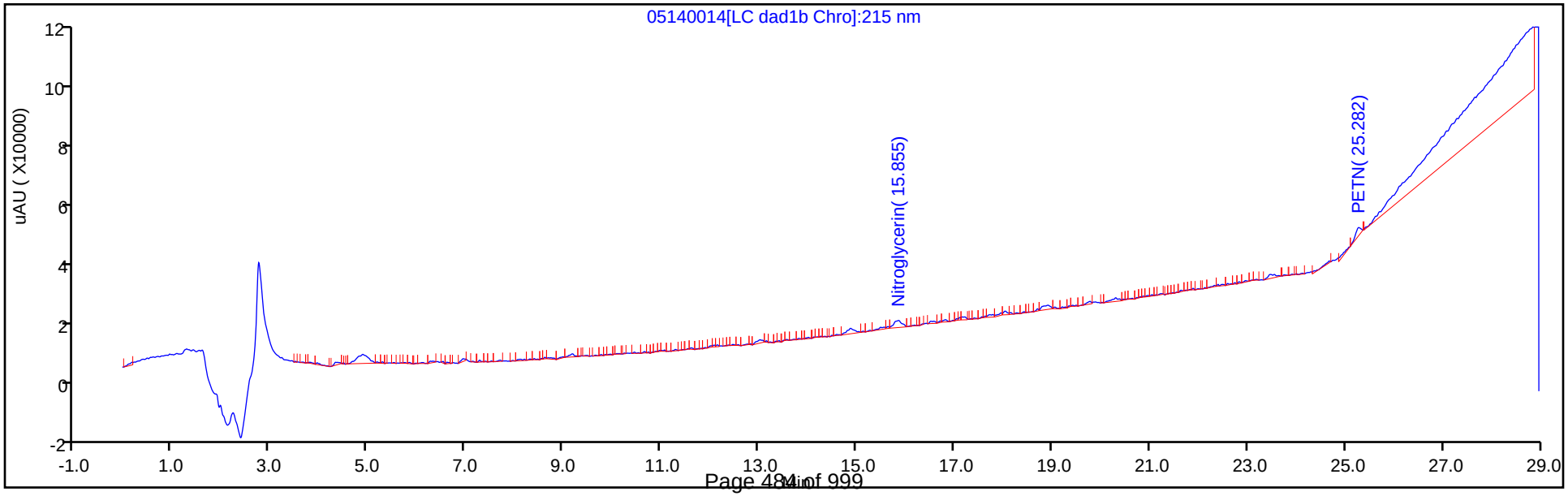
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 2			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

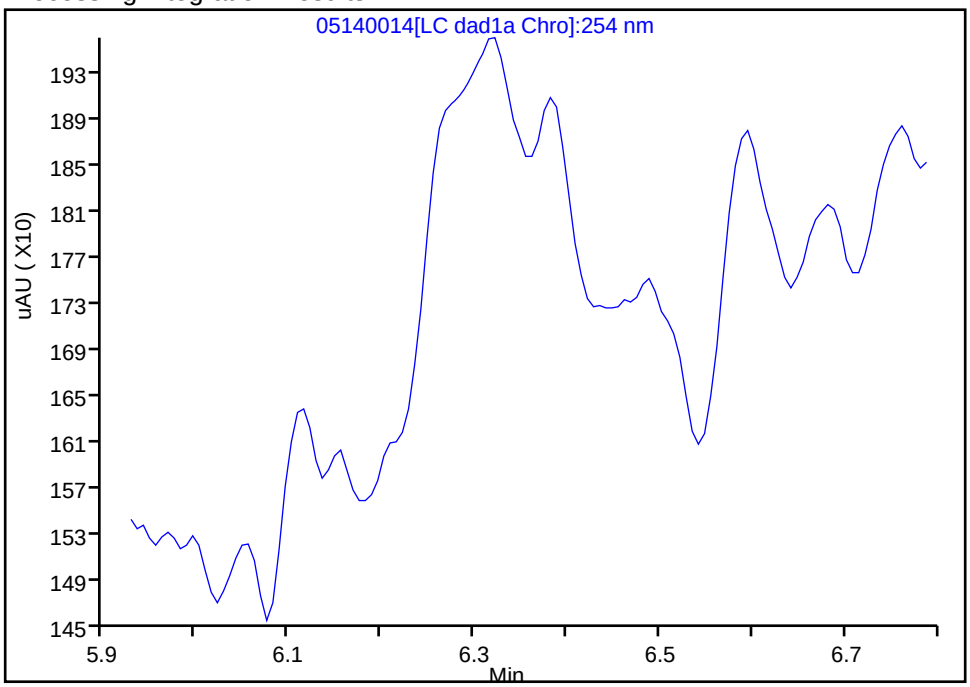
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

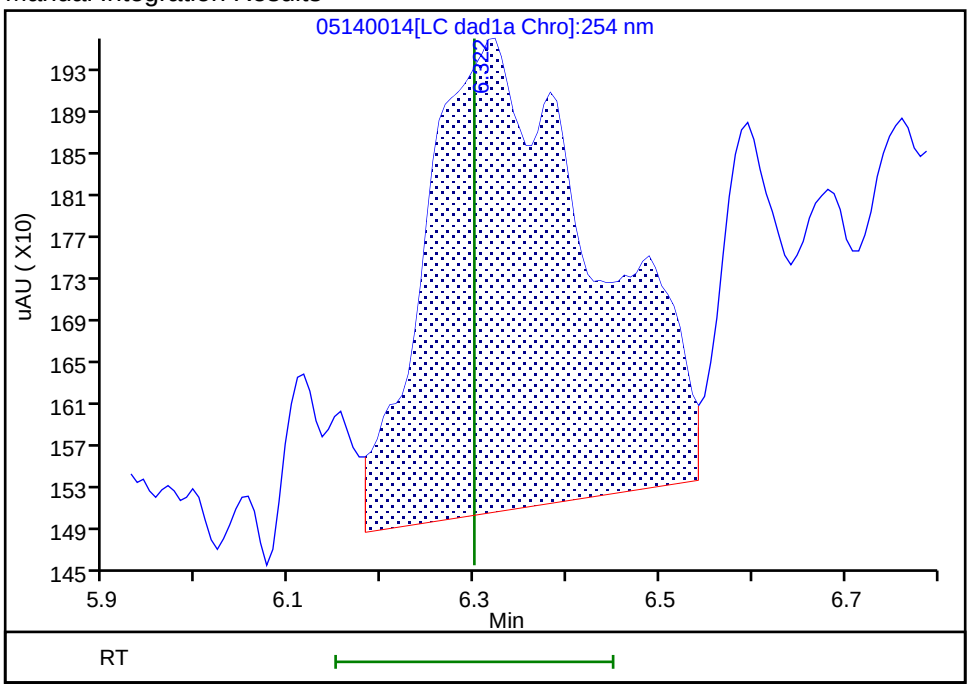
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.32
Area: 5683
Amount: 0.029323
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:29
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

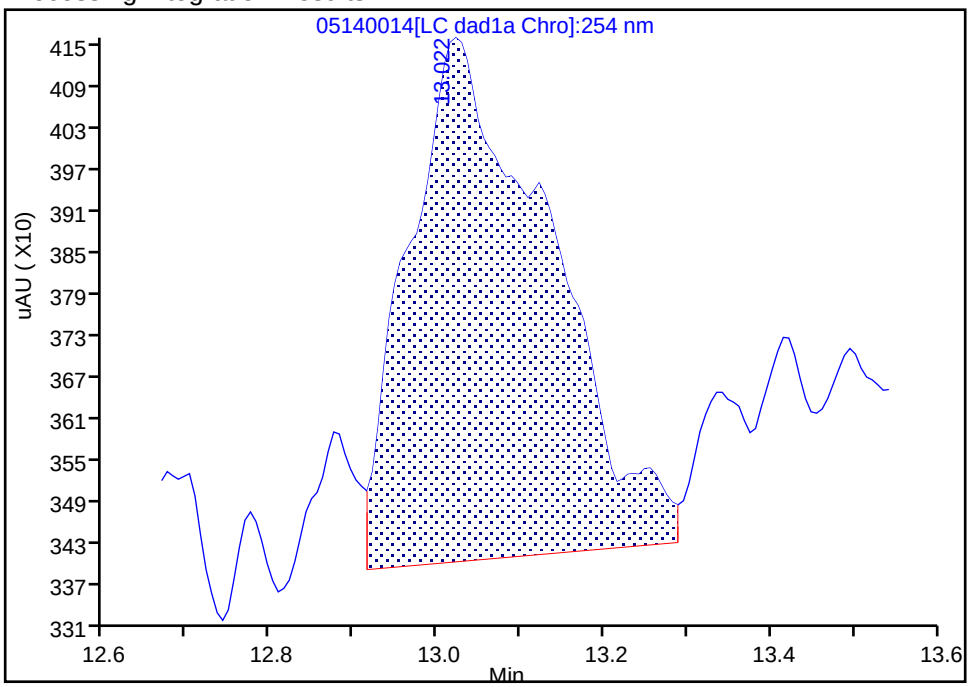
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

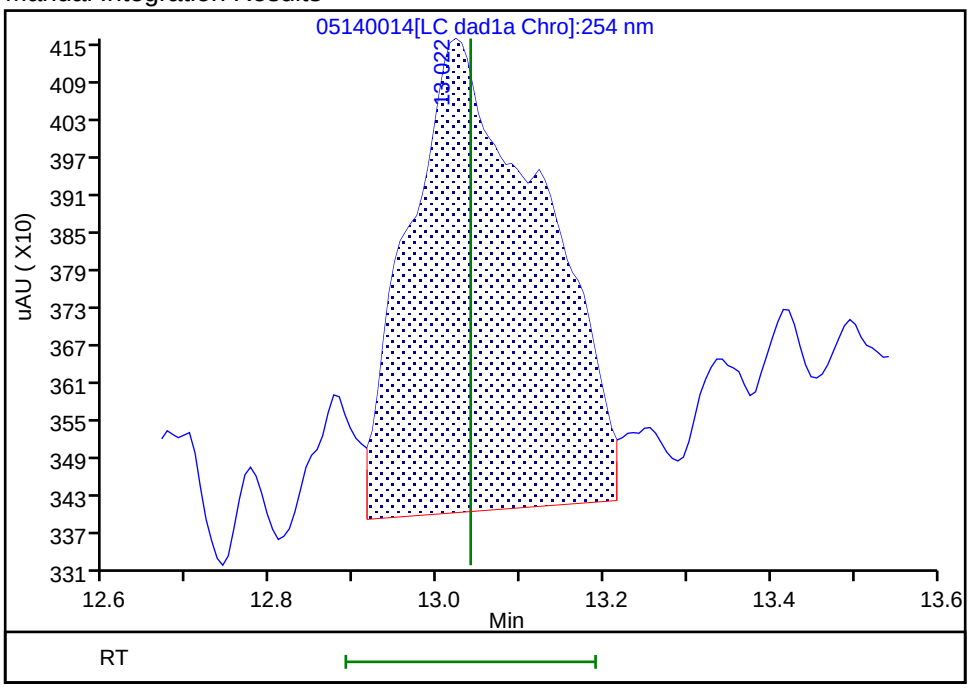
Processing Integration Results

RT: 13.02
Area: 8831
Amount: 0.029561
Amount Units: ug/ml



Manual Integration Results

RT: 13.02
Area: 8436
Amount: 0.023796
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

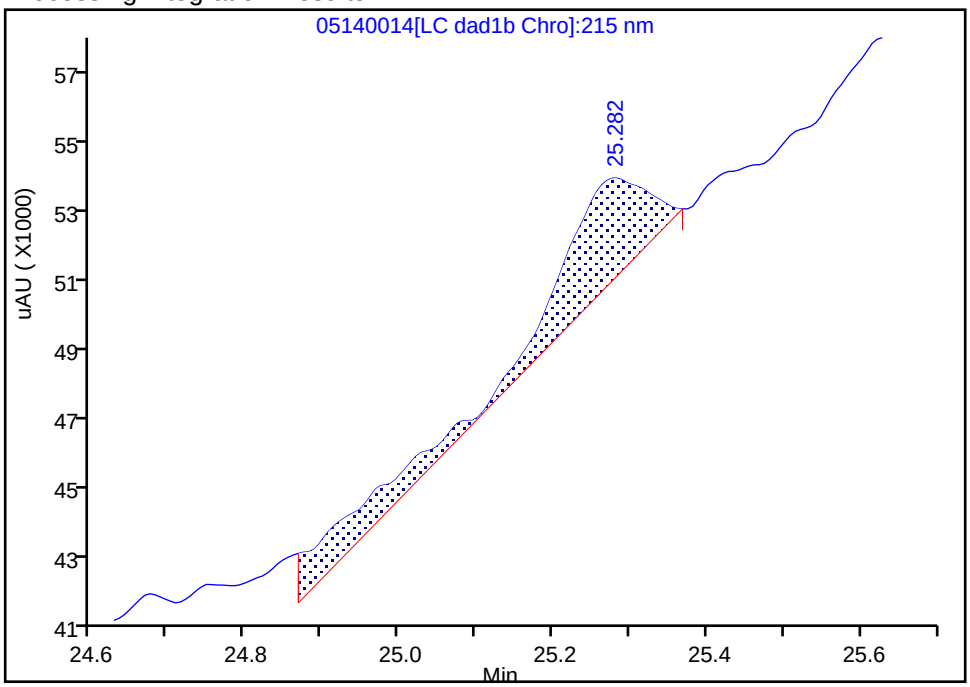
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

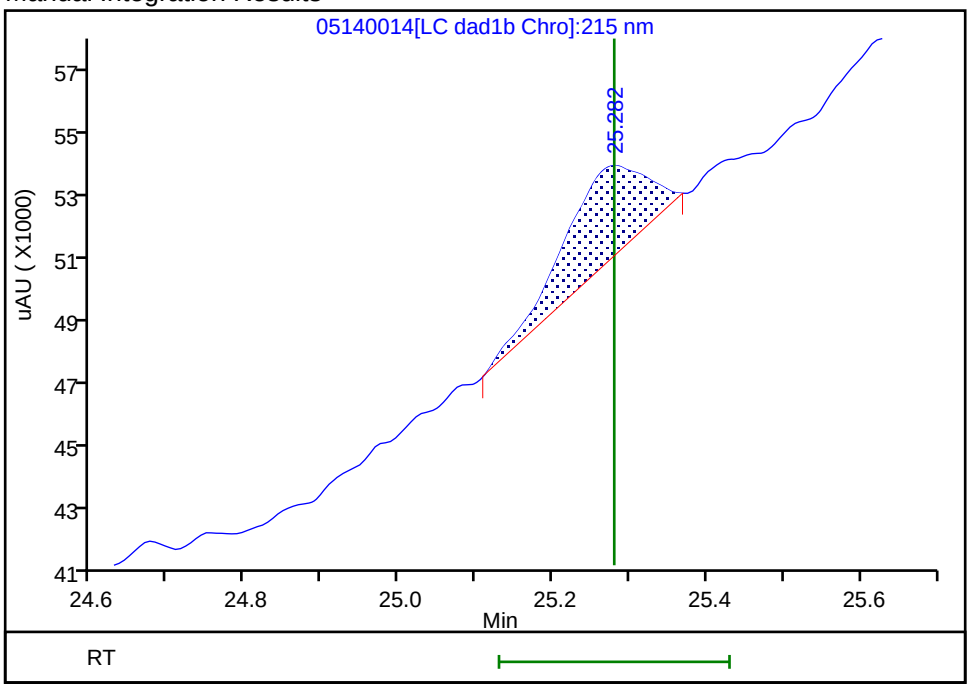
Processing Integration Results

RT: 25.28
Area: 31007
Amount: 0.129673
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 20453
Amount: -0.053470
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-May-2020 20:56:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0091518-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:24:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.366			ND	ND	U
2 2,4-diamino-6-nitrotoluene	1		4.880			ND	ND	U
5 2,4,6-Trinitrophenol	1		6.300			ND	ND	U
6 HMX	1		6.986			ND	ND	U
8 RDX	1		9.173			ND	ND	U
9 Nitrobenzene	1		12.106			ND	ND	U
$ 10 1,2-Dinitrobenzene	1		13.040			ND	ND	U
11 3,5-Dinitroaniline	1		14.886			ND	ND	U
12 1,3-Dinitrobenzene	1		15.553			ND	ND	U
13 Nitroglycerin	2		15.853			ND	ND	U
14 o-Nitrotoluene	1		16.533			ND	ND	U
15 p-Nitrotoluene	1		16.820			ND	ND	U
16 4-Amino-2,6-dinitrotoluene	1		17.146			ND	ND	U
17 m-Nitrotoluene	1		17.753			ND	ND	U
18 2-Amino-4,6-dinitrotoluene	1		18.046			ND	ND	U
19 1,3,5-Trinitrobenzene	1		18.886			ND	ND	U
20 2,6-Dinitrotoluene	1	19.755	19.806	-0.051	4758	0.0126	0.001113	M
21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	7990	0.0126	0.0125	M
22 Tetryl	1		23.553			ND	ND	U
23 2,4,6-Trinitrotoluene	1		24.653			ND	ND	U
24 PETN	2		25.280			ND	ND	U

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

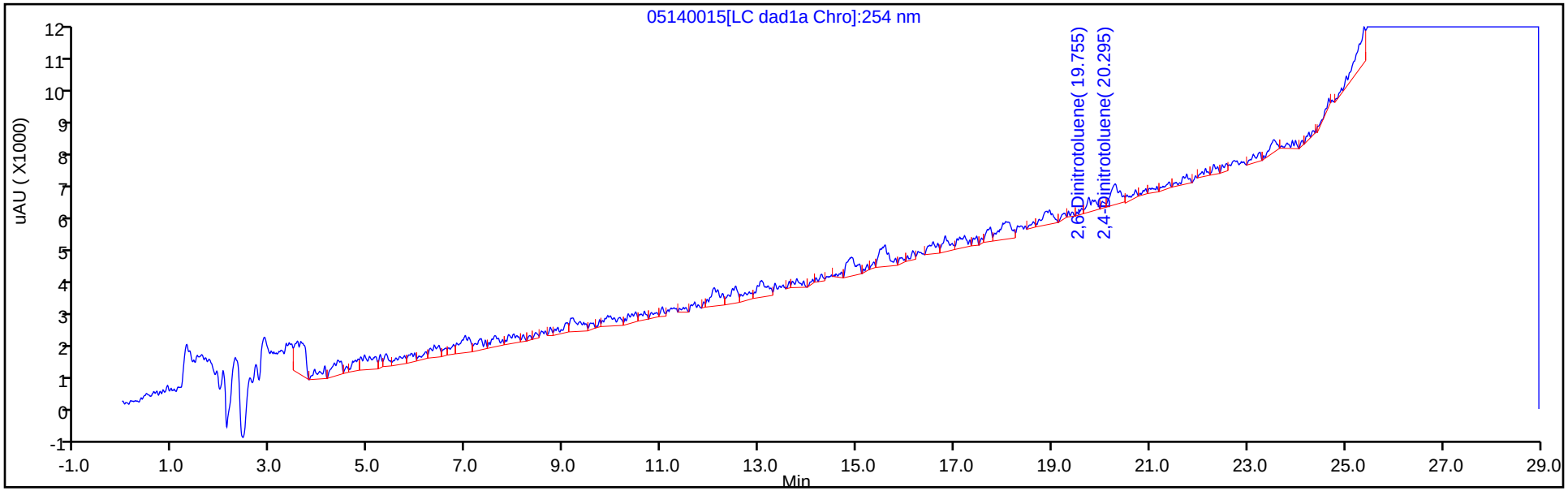
8330IntermStk_00064	Amount Added:	1.25	Units: uL
8330_ADDs_00026	Amount Added:	0.50	Units: uL

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

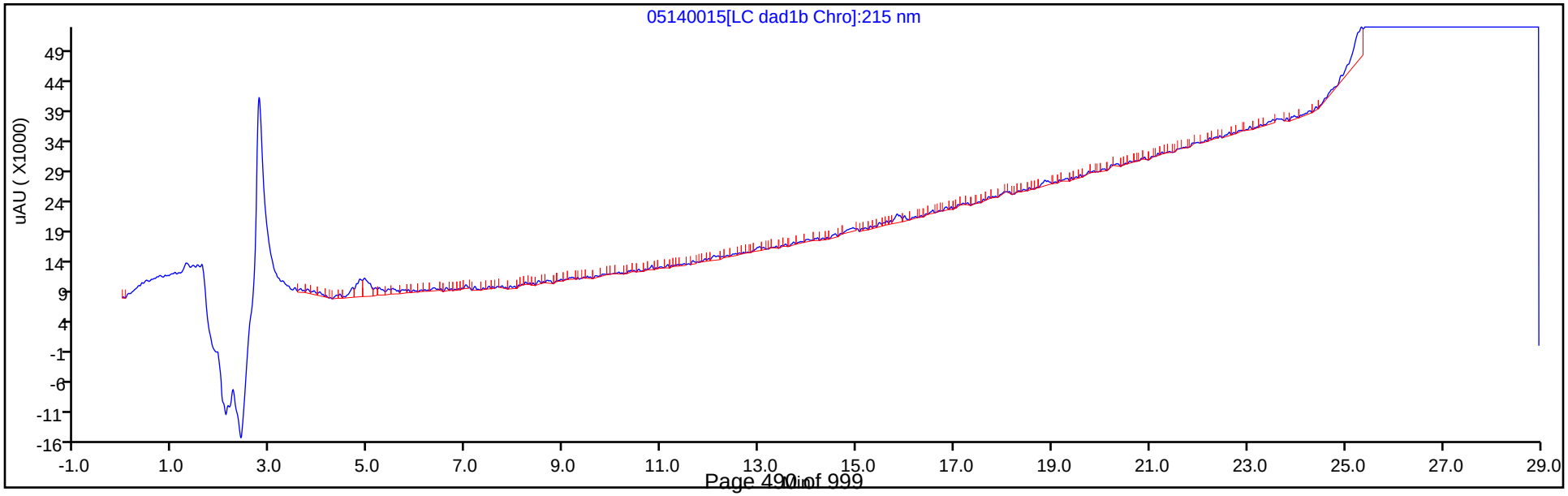
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 1			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

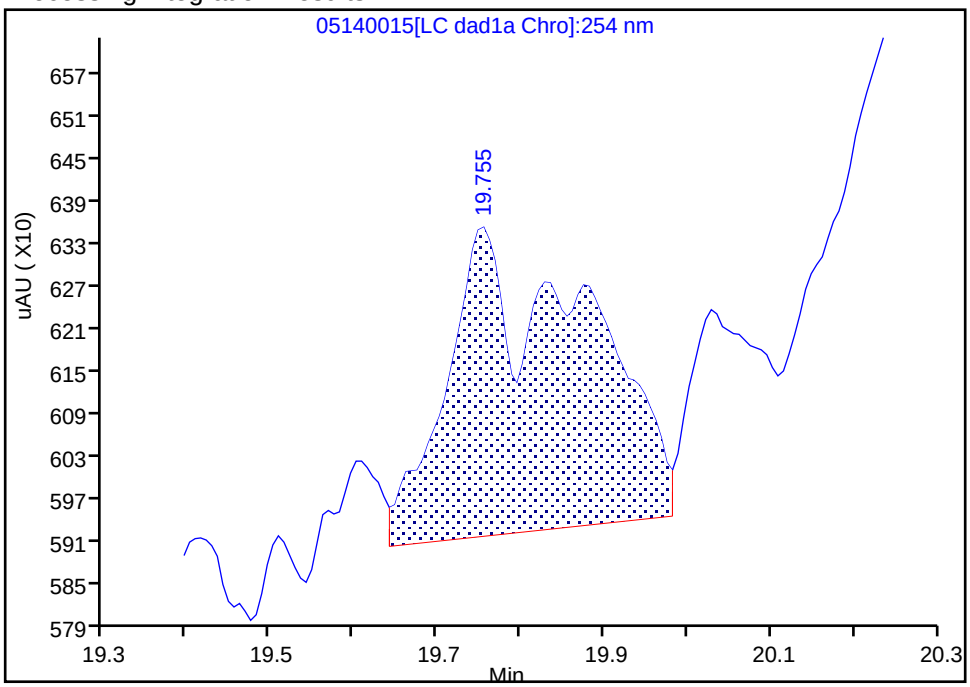
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

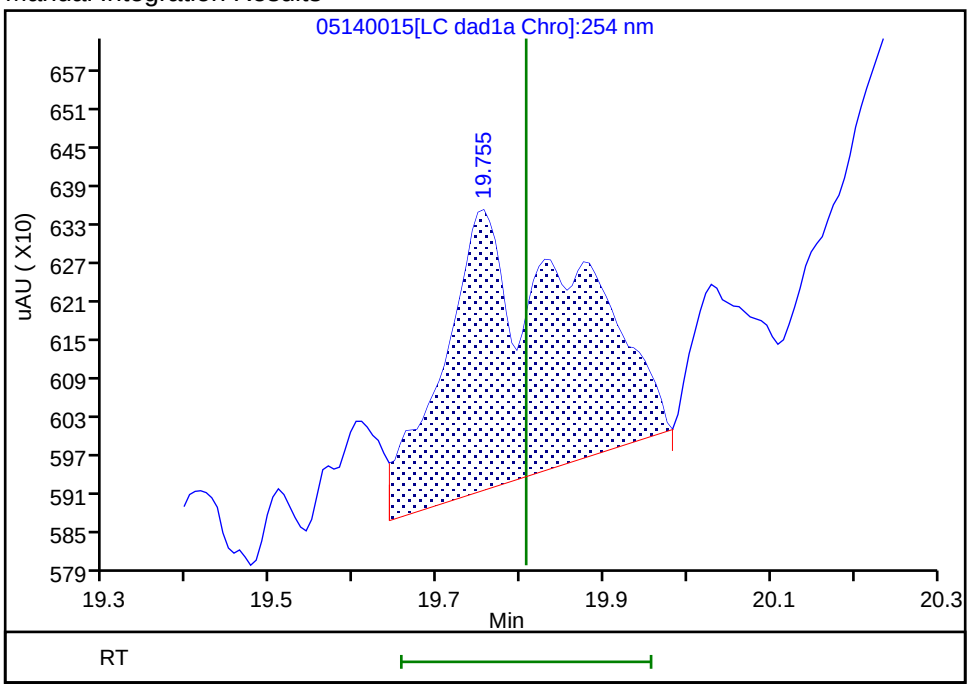
Processing Integration Results

RT: 19.76
Area: 5064
Amount: 0.014857
Amount Units: ug/ml



Manual Integration Results

RT: 19.76
Area: 4758
Amount: 0.001113
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

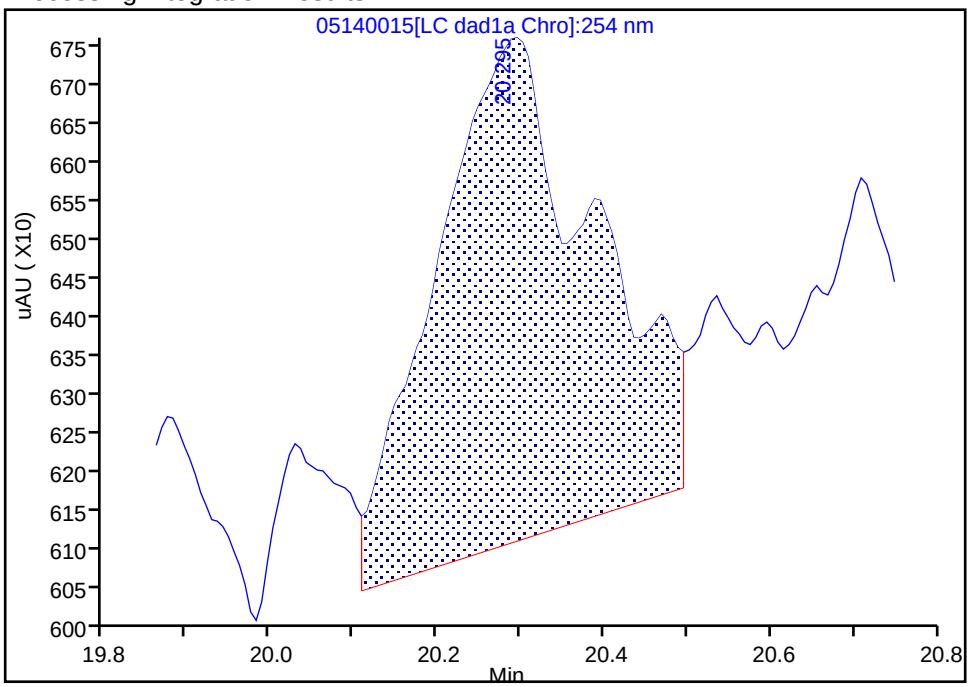
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

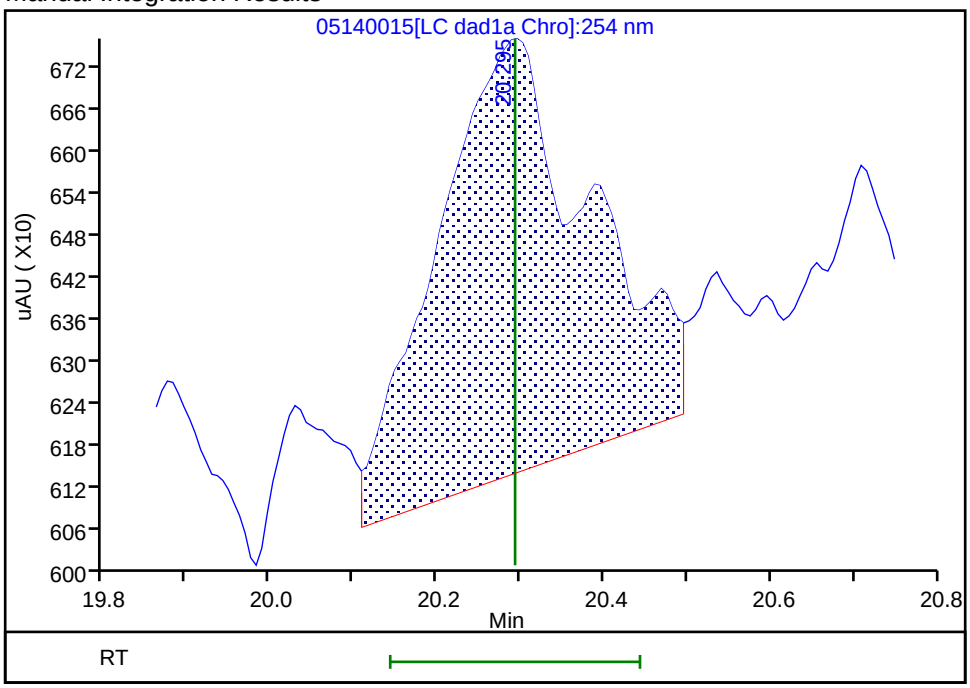
Processing Integration Results

RT: 20.30
Area: 8698
Amount: 0.013456
Amount Units: ug/ml



Manual Integration Results

RT: 20.30
Area: 7990
Amount: 0.012482
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	5.430	5.411	5.420	5.417	5.419	5.416	5.408	5.395			5.267 - 5.567	5.415
DNX	6.217	6.224	6.226	6.231	6.226	6.223	6.214	6.202			6.081 - 6.381	6.220
MNX	7.737	7.744	7.740	7.744	7.739	7.736	7.728	7.709			7.594 - 7.894	7.735

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	552048 411823	425974 414575	452338 409749	404831 415188	Ave		435815.884				11.3		20.0			
DNX	380619 318914	320939 302202	322807 308244	308000 307920	Ave		321205.643				7.8		20.0			
MNX	510454 287059	337087 281216	295227 270908	285954 281272	Lin2	5408.61434	266896.431							0.9970		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	11052 290493	21320 410159	45279 1039009	101309	164894	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	7620 211753	16063 308552	32313 770570	77077	127693	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Lin2	11914 229725	19669 316150	34453 820612	83427	133999	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140017.D				
Lims ID:	IC DMT 9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	14-May-2020 22:06:26	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 9				
Misc. Info.:	280-0091518-017				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:02	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:36:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.395	5.417	-0.022	1039009	2.50	2.38	
4 DNX	1	6.202	6.231	-0.029	770570	2.50	2.40	
7 MNX	1	7.709	7.744	-0.035	820612	2.92	3.05	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

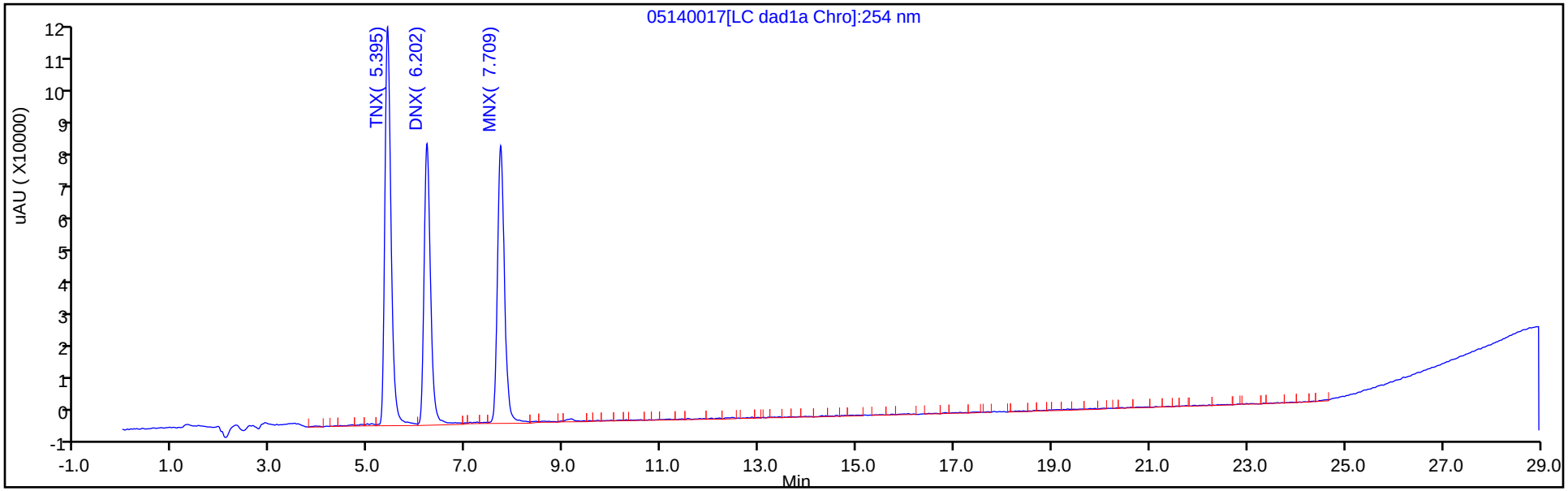
8330 DMT_00006 Amount Added: 125.00 Units: uL

Report Date: 15-May-2020 12:01:02 Chrom Revision: 2.3 05-May-2020 17:48:18

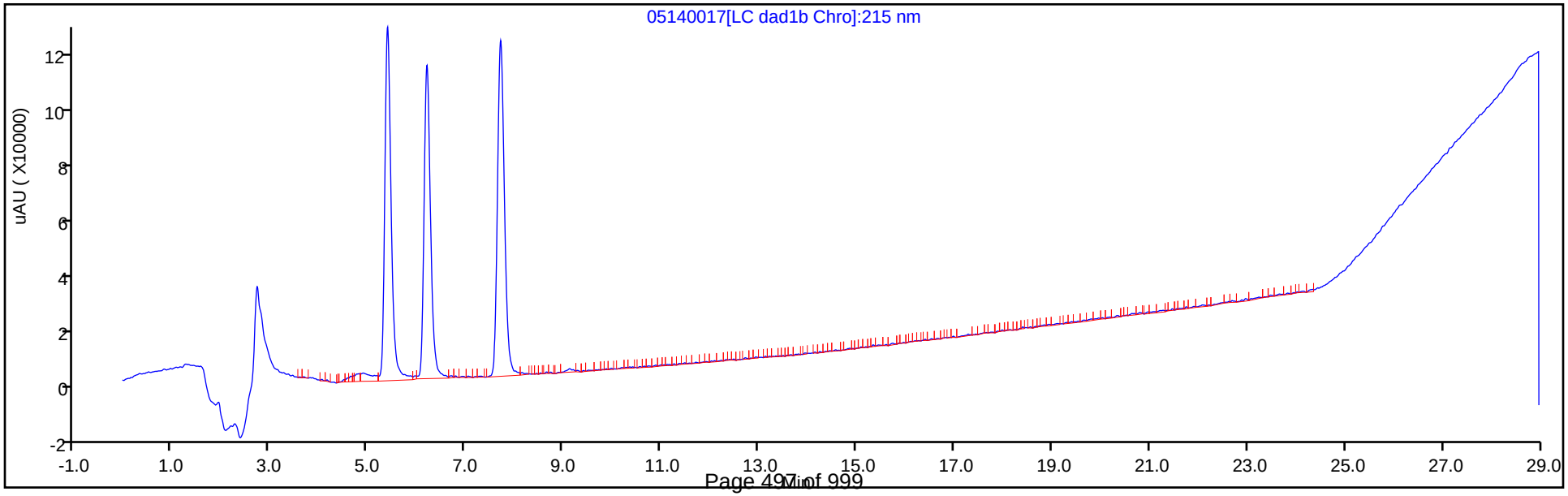
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d				
Injection Date:	14-May-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 9			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

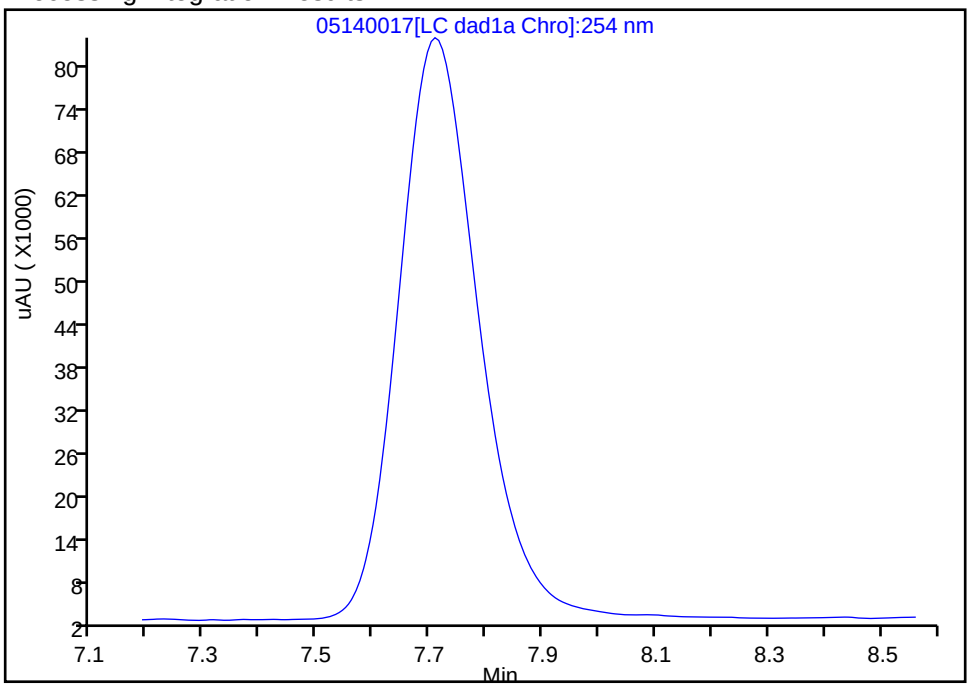
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d				
Injection Date:	14-May-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

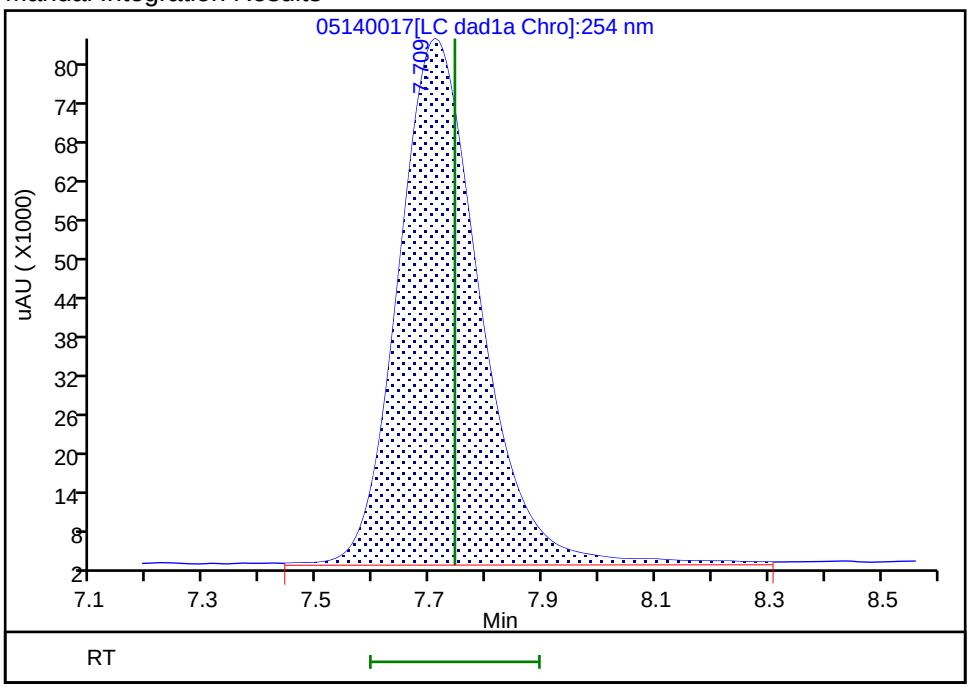
Processing Integration Results

Not Detected
Expected RT: 7.74



Manual Integration Results

RT: 7.71
Area: 820612
Amount: 3.054381
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:36:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140018.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	14-May-2020 22:41:23	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0091518-018				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:02	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:36:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.408	5.417	-0.009	410159	1.00	0.9411	
4 DNX	1	6.214	6.231	-0.017	308552	1.00	0.9606	
7 MNX	1	7.728	7.744	-0.016	316150	1.17	1.16	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

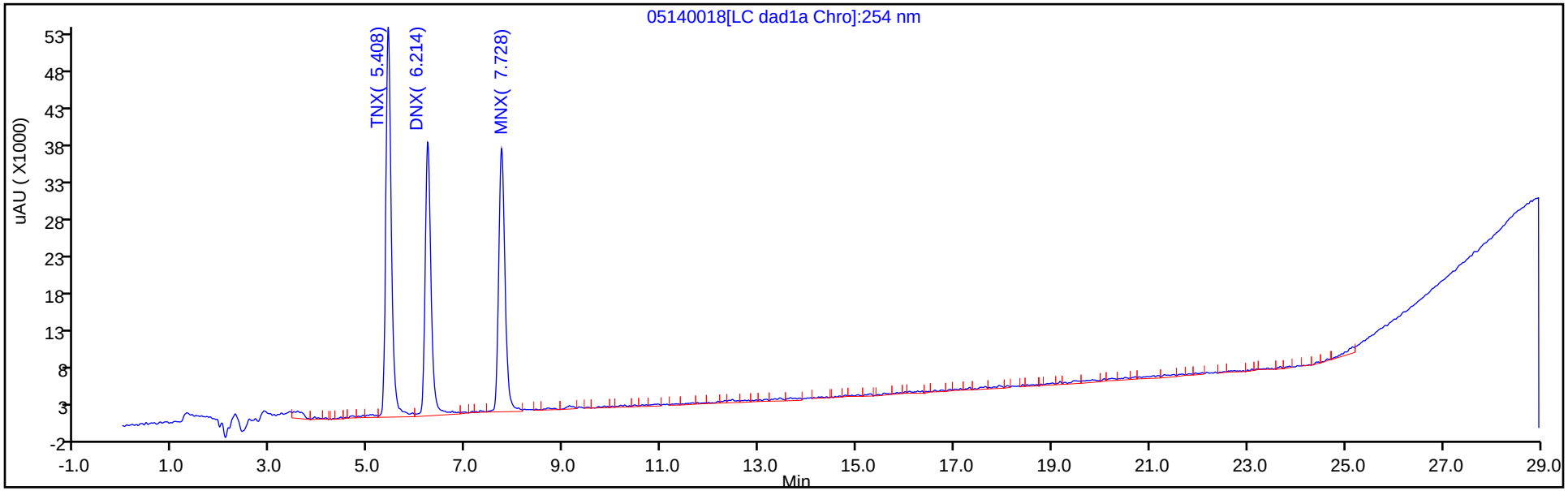
8330 DMT_00006 Amount Added: 50.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

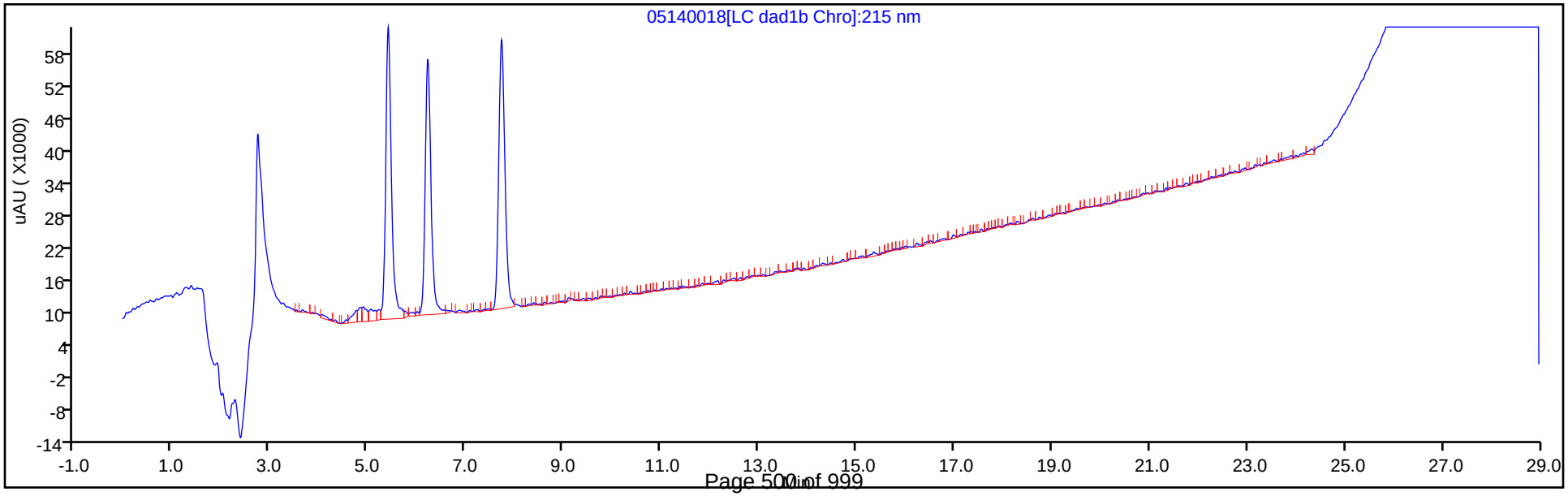
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d				
Injection Date:	14-May-2020 22:41:23	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 8			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

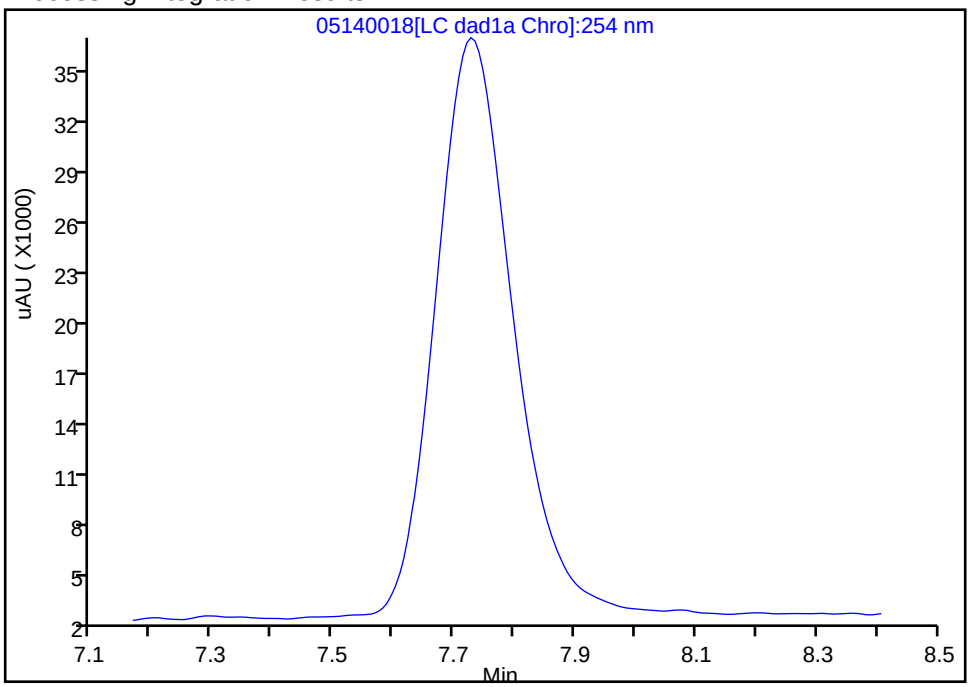
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d				
Injection Date:	14-May-2020 22:41:23	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

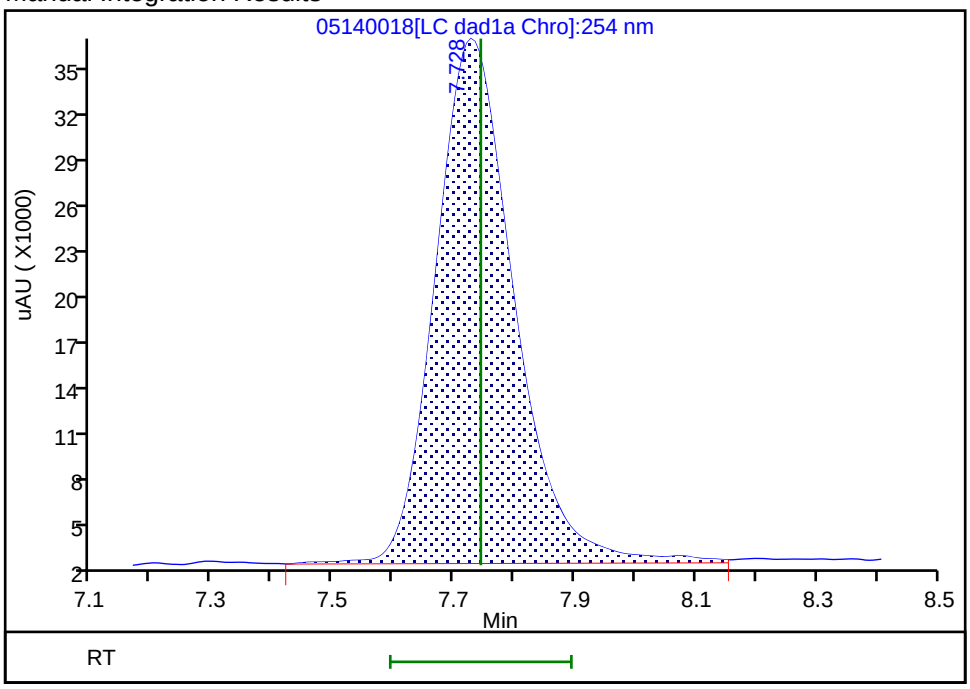
Not Detected
Expected RT: 7.74

Processing Integration Results



Manual Integration Results

RT: 7.73
Area: 316150
Amount: 1.164277
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:36:46
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140019.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	14-May-2020 23:16:26	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0091518-019				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:03	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				
First Level Reviewer: zhangji		Date:	15-May-2020 11:36:56		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.416	5.417	-0.001	290493	0.7007	0.6665	
4 DNX	1	6.223	6.231	-0.008	211753	0.7007	0.6592	
7 MNX	1	7.736	7.744	-0.008	229725	0.8169	0.8405	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

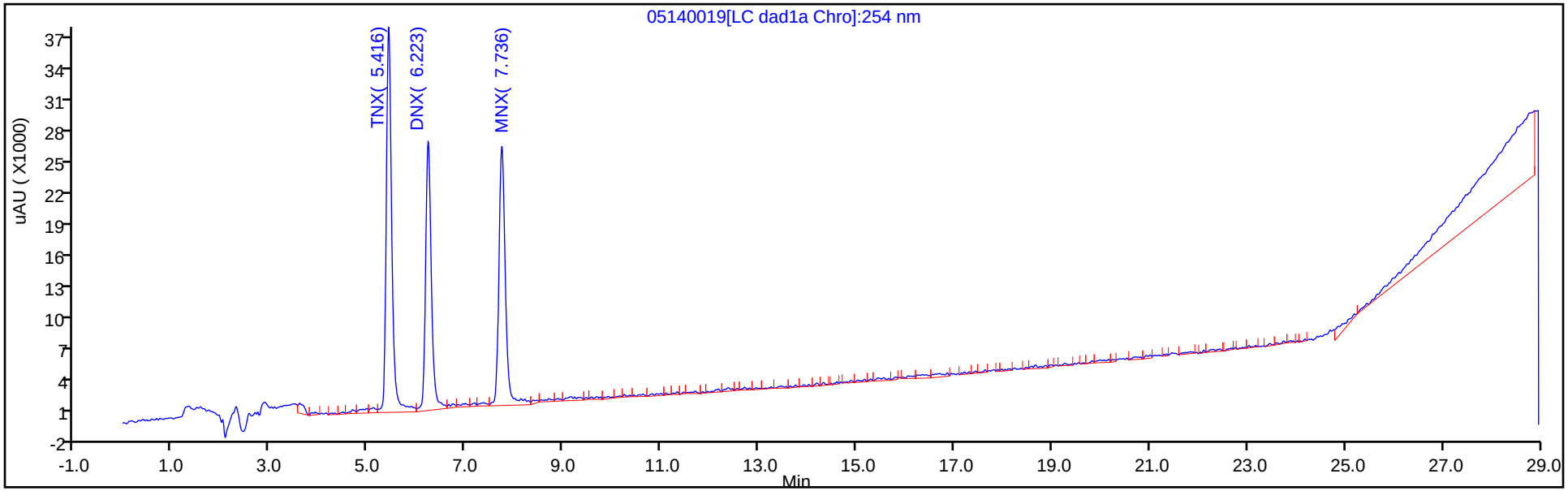
8330 DMT_00006 Amount Added: 35.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

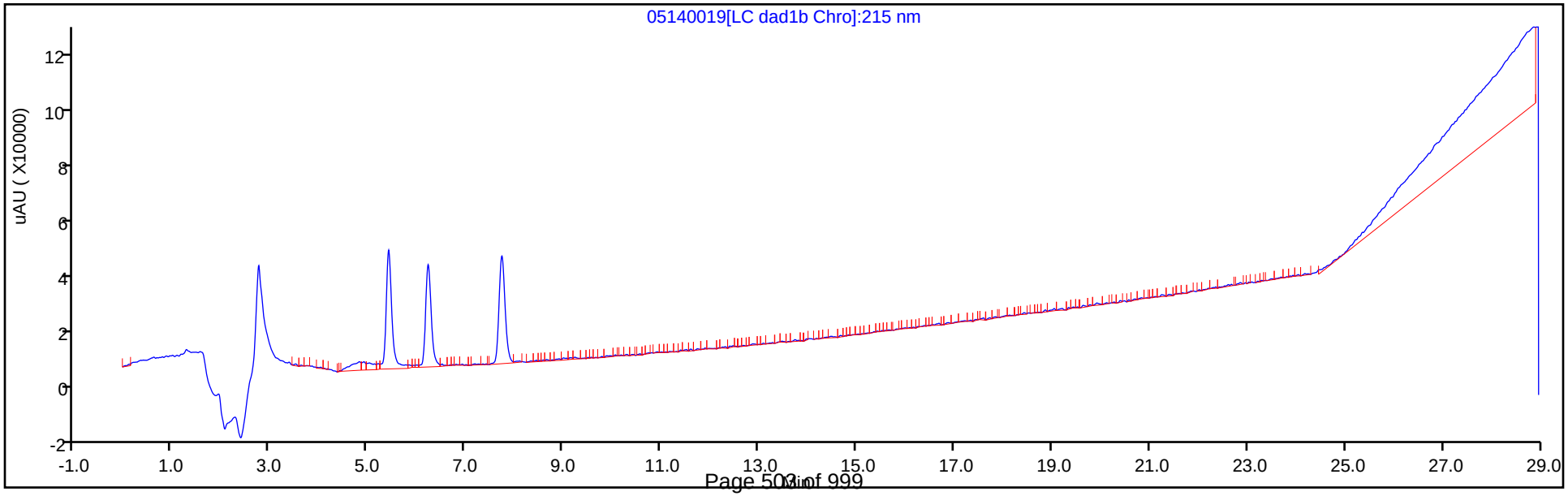
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d				
Injection Date:	14-May-2020 23:16:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 7			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

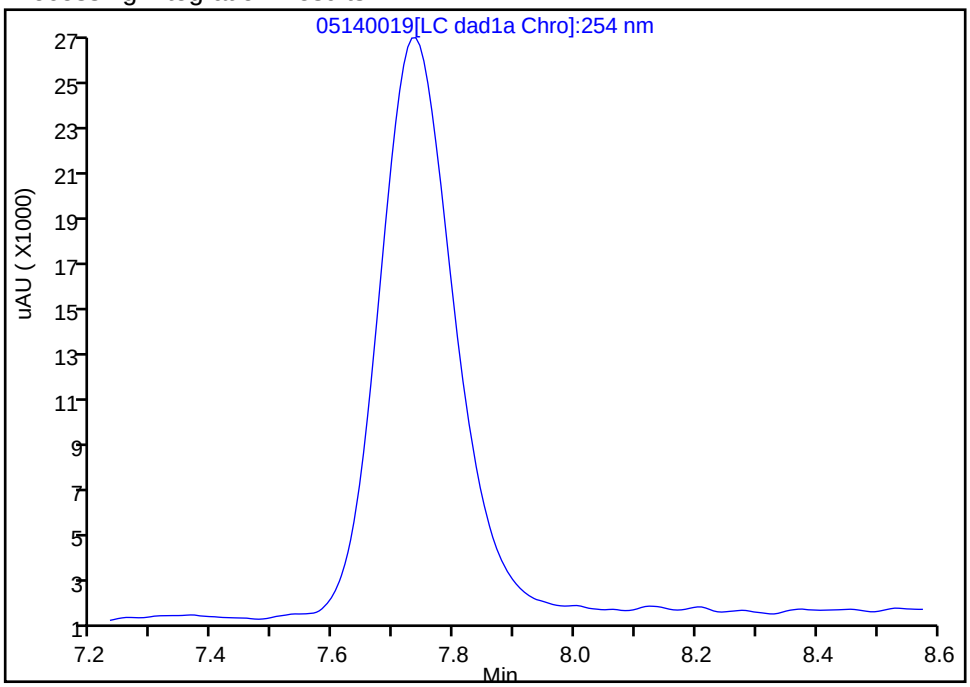
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d				
Injection Date:	14-May-2020 23:16:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

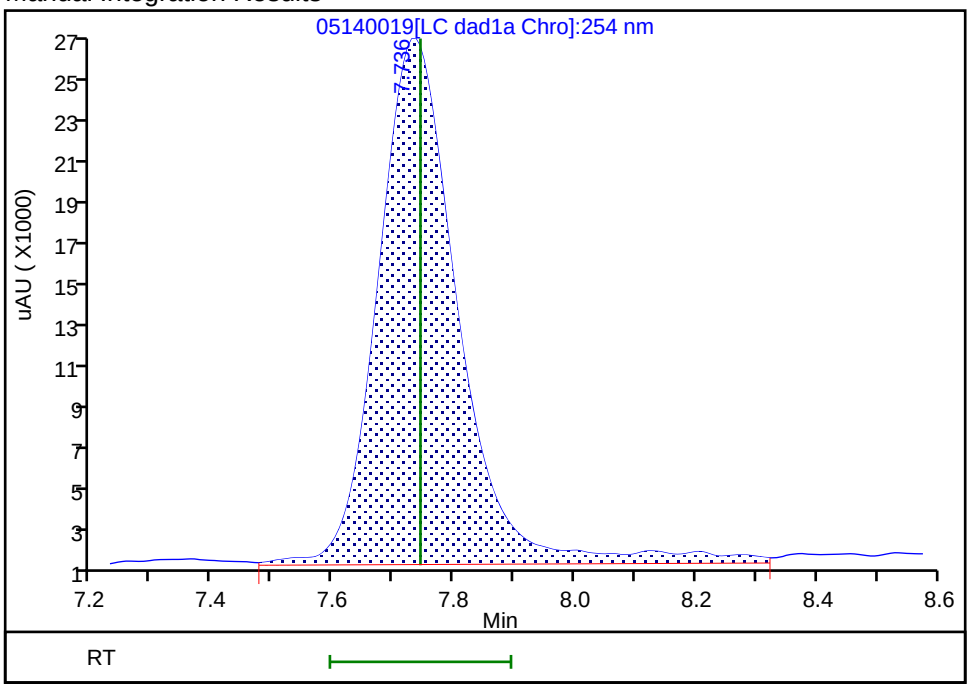
Processing Integration Results

Not Detected
Expected RT: 7.74



Manual Integration Results

RT: 7.74
Area: 229725
Amount: 0.840462
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:36:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140020.D				
Lims ID:	IC DMT 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	14-May-2020 23:51:28	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 6				
Misc. Info.:	280-0091518-020				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:03	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:37:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.419	5.417	0.002	164894	0.4004	0.3784	
4 DNX	1	6.226	6.231	-0.005	127693	0.4004	0.3975	
7 MNX	1	7.739	7.744	-0.005	133999	0.4668	0.4818	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

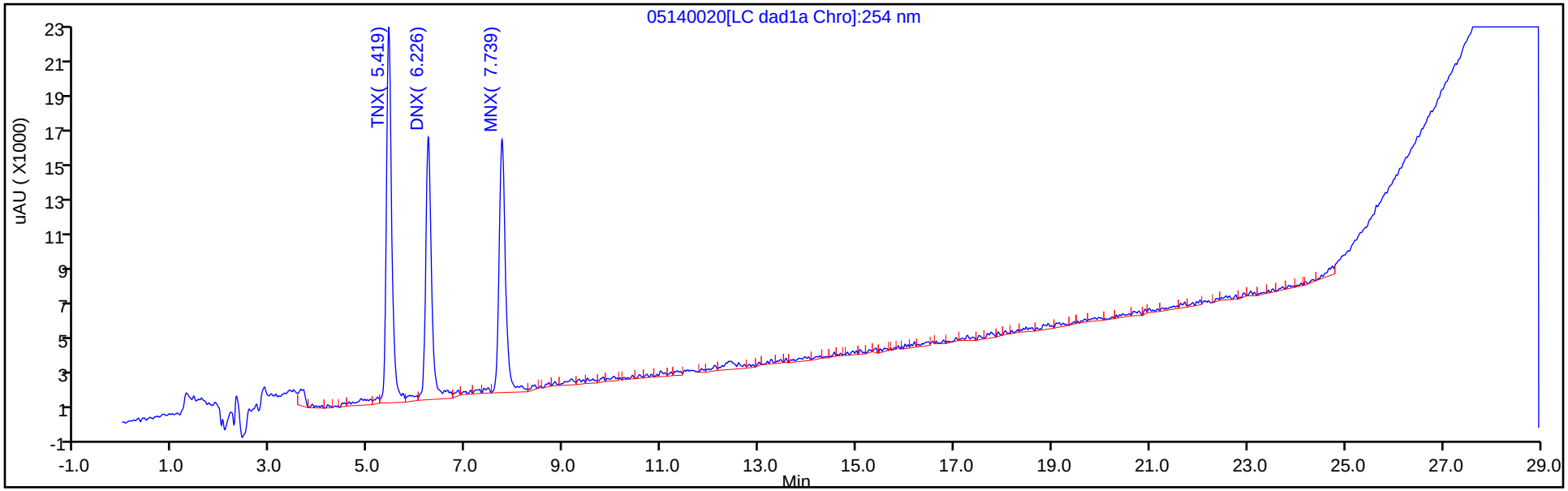
8330 DMT_00006 Amount Added: 20.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

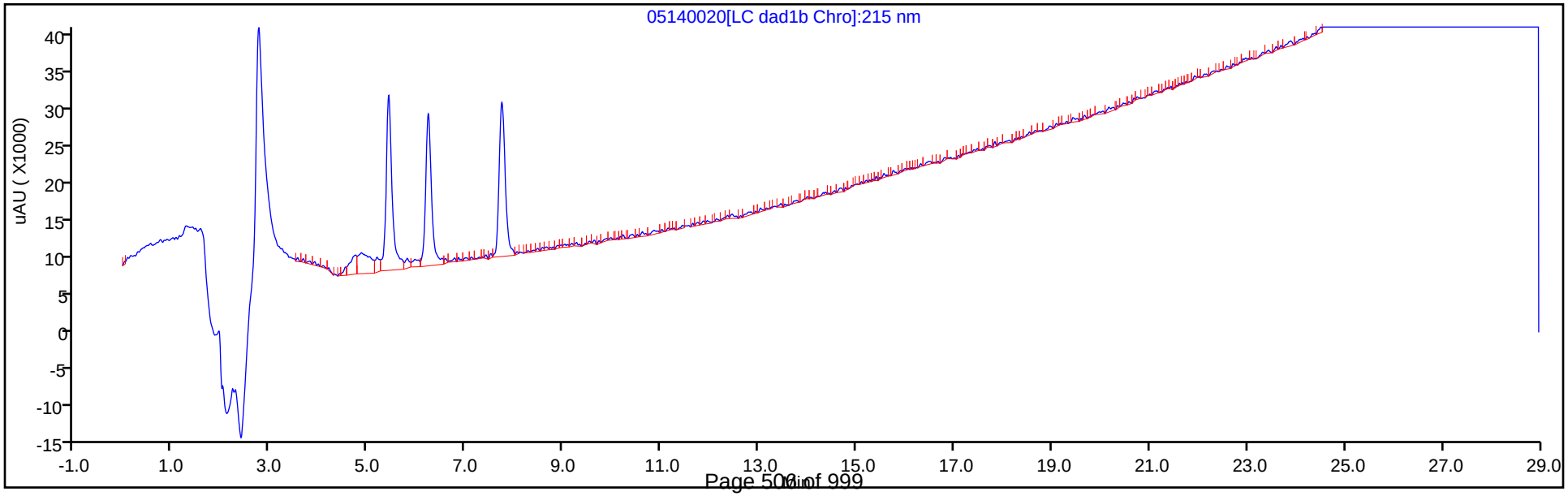
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d				
Injection Date:	14-May-2020 23:51:28	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 6			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

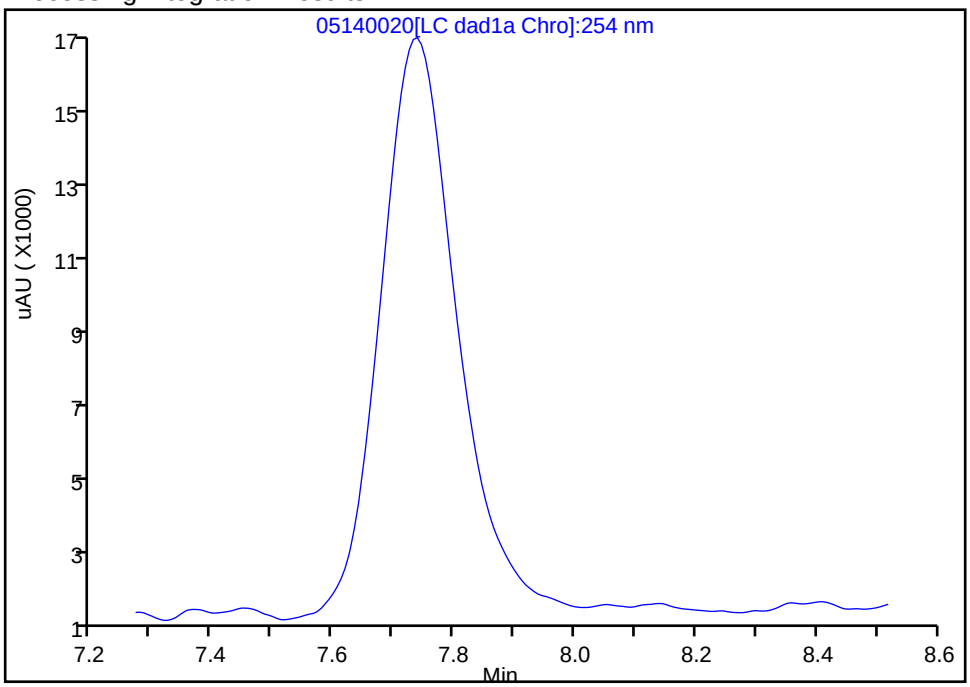
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d				
Injection Date:	14-May-2020 23:51:28	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

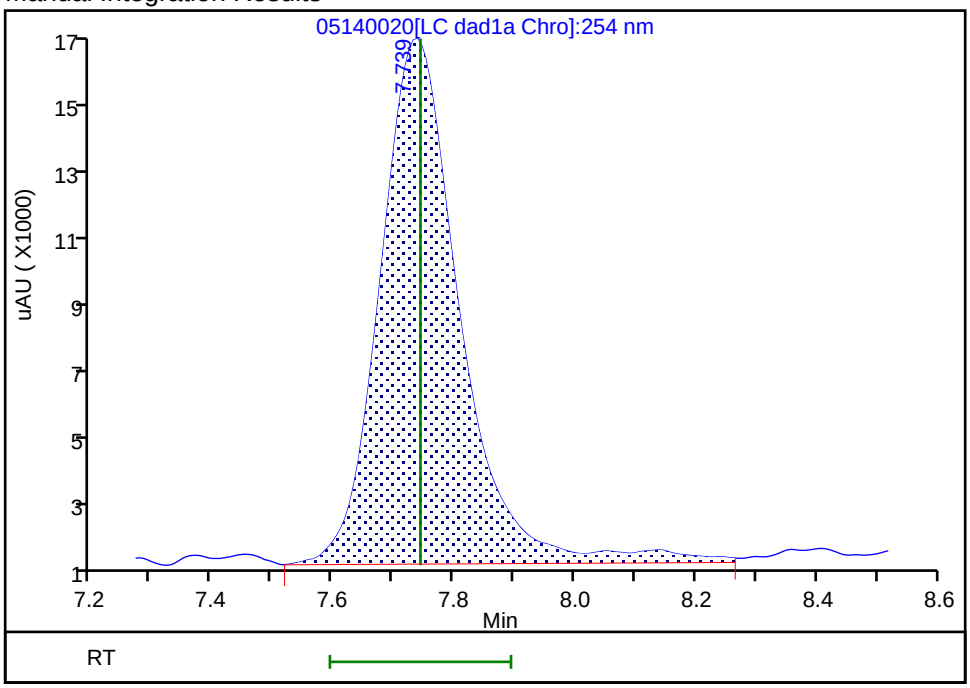
Not Detected
Expected RT: 7.74

Processing Integration Results



RT: 7.74
Area: 133999
Amount: 0.481799
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:36:59
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140021.D				
Lims ID:	IC DMT 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	15-May-2020 00:26:25	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 5				
Misc. Info.:	280-0091518-021				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:04	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.417	5.417	0.000	101309	0.2503	0.2325	
4 DNX	1	6.231	6.231	0.000	77077	0.2503	0.2400	
7 MNX	1	7.744	7.744	0.000	83427	0.2918	0.2923	

Reagents:

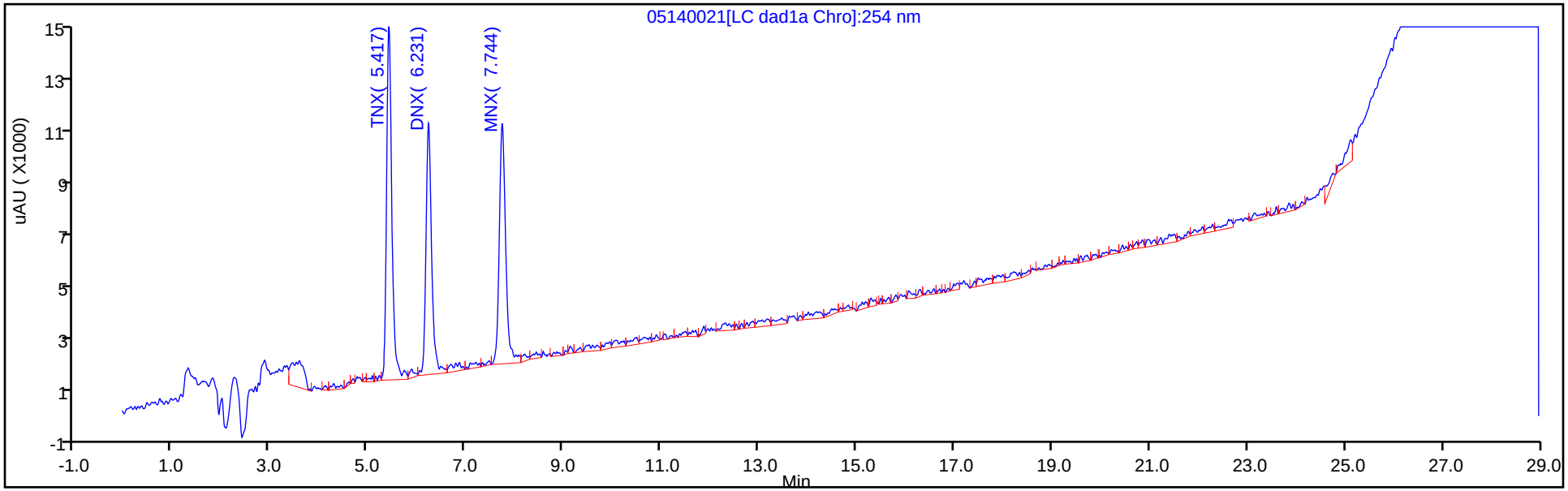
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

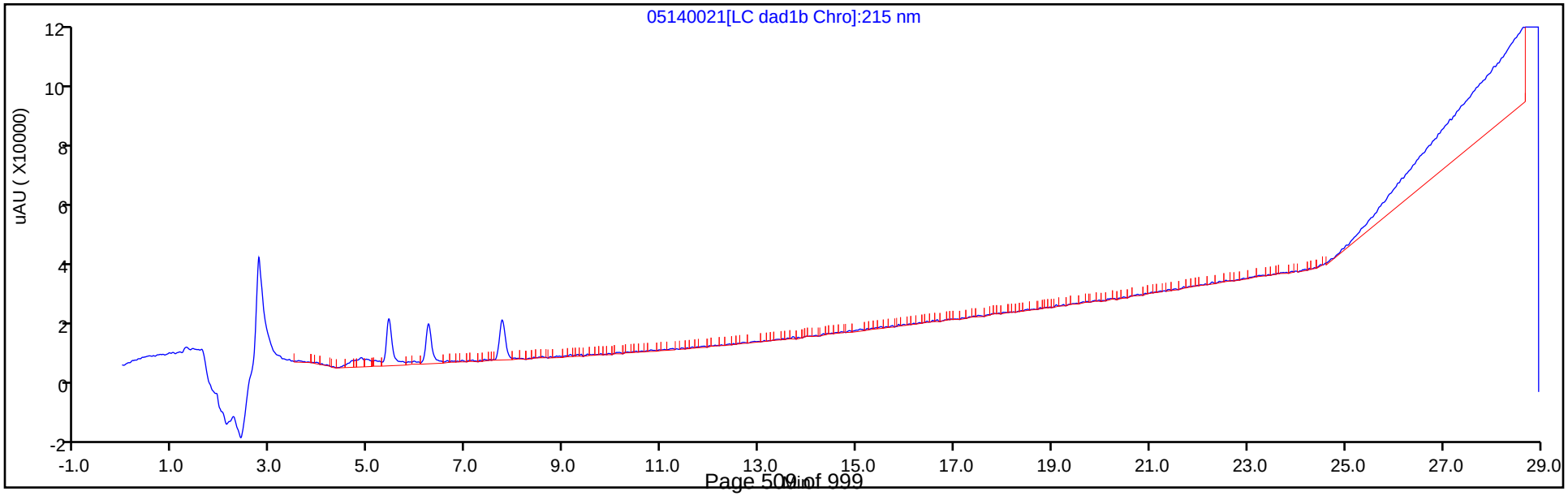
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140021.d				
Injection Date:	15-May-2020 00:26:25	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 5			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140022.D				
Lims ID:	IC DMT 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	15-May-2020 01:01:25	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 4				
Misc. Info.:	280-0091518-022				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:04	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.420	5.417	0.003	45279	0.1001	0.1039	
4 DNX	1	6.226	6.231	-0.005	32313	0.1001	0.1006	
7 MNX	1	7.740	7.744	-0.004	34453	0.1167	0.1088	

Reagents:

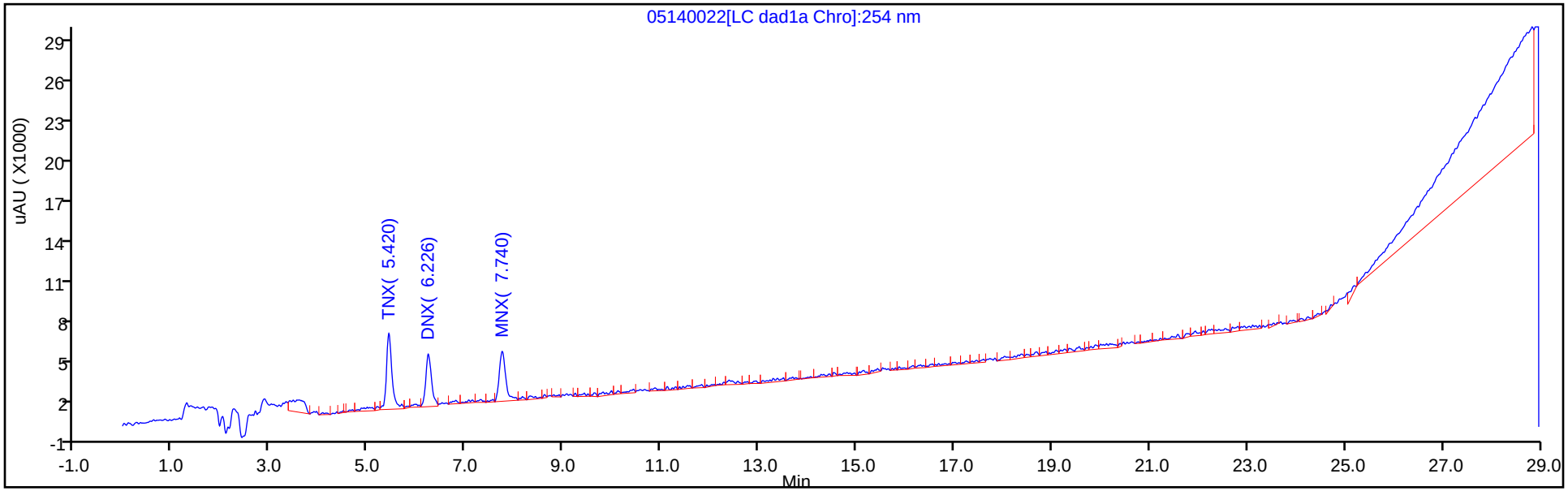
8330 DMT_00006 Amount Added: 5.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

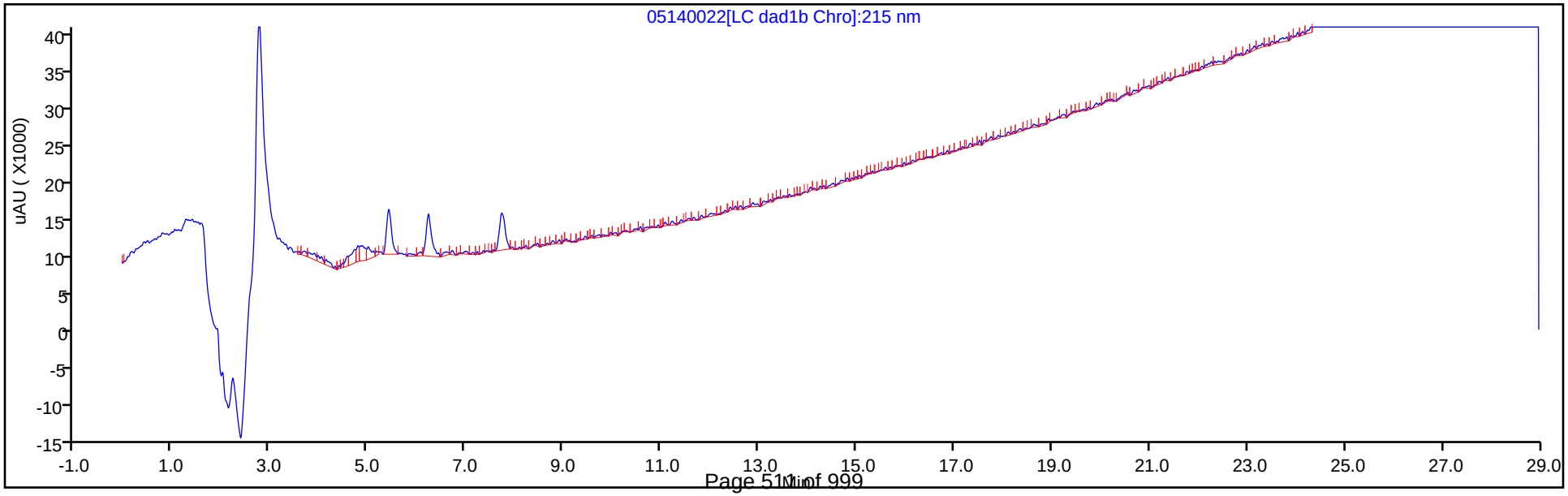
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140022.d				
Injection Date:	15-May-2020 01:01:25	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 4			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140023.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	15-May-2020 01:36:23	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0091518-023				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.411	5.417	-0.006	21320	0.0501	0.0489	
4 DNX	1	6.224	6.231	-0.007	16063	0.0501	0.0500	
7 MNX	1	7.744	7.744	0.000	19669	0.0584	0.0534	

Reagents:

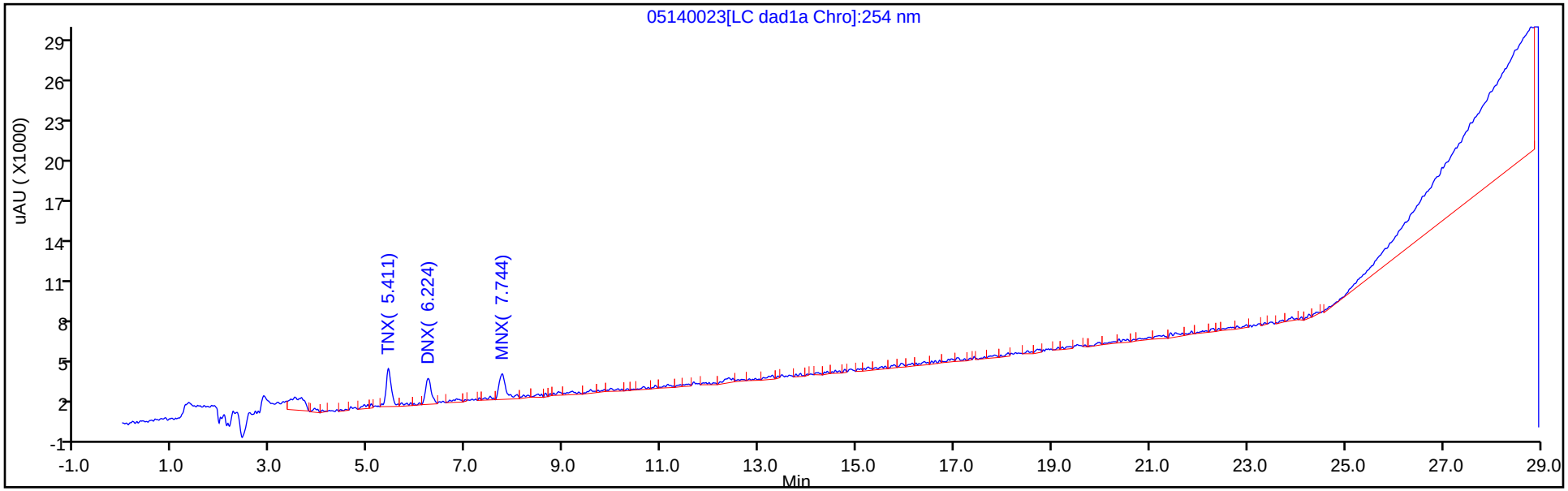
8330 DMT_00006 Amount Added: 2.50 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

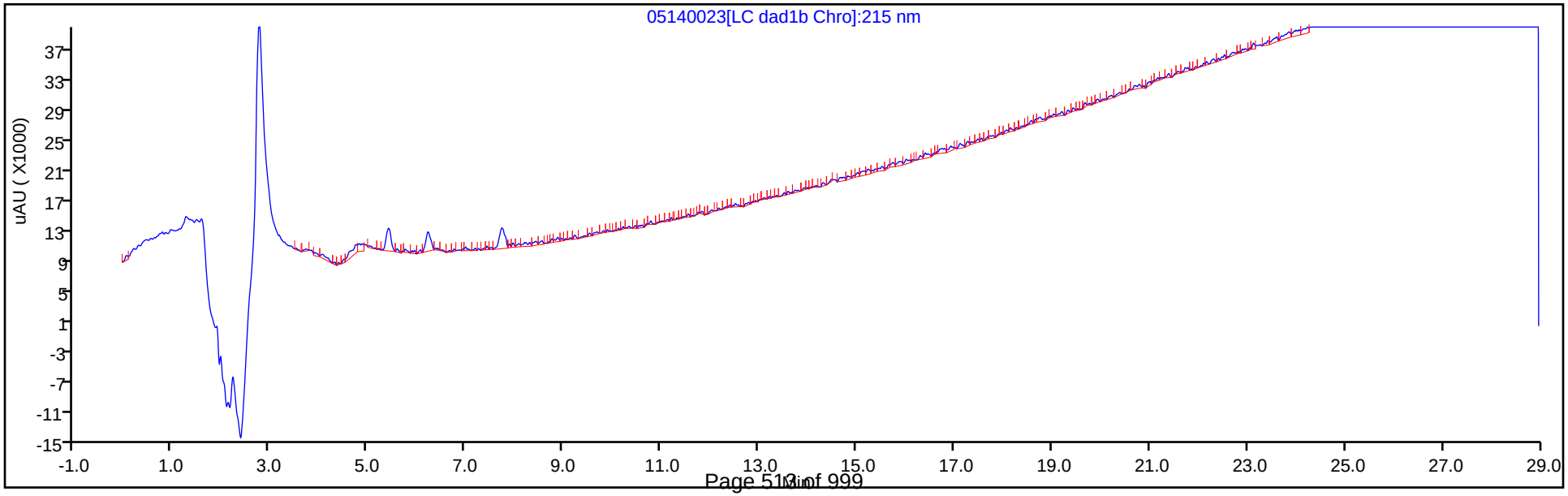
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140023.d				
Injection Date:	15-May-2020 01:36:23	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 3			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	15-May-2020 02:11:20	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0091518-024				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.430	5.417	0.013	11052	0.0200	0.0254	
4 DNX	1	6.217	6.231	-0.014	7620	0.0200	0.0237	
7 MNX	1	7.737	7.744	-0.007	11914	0.0233	0.0244	

Reagents:

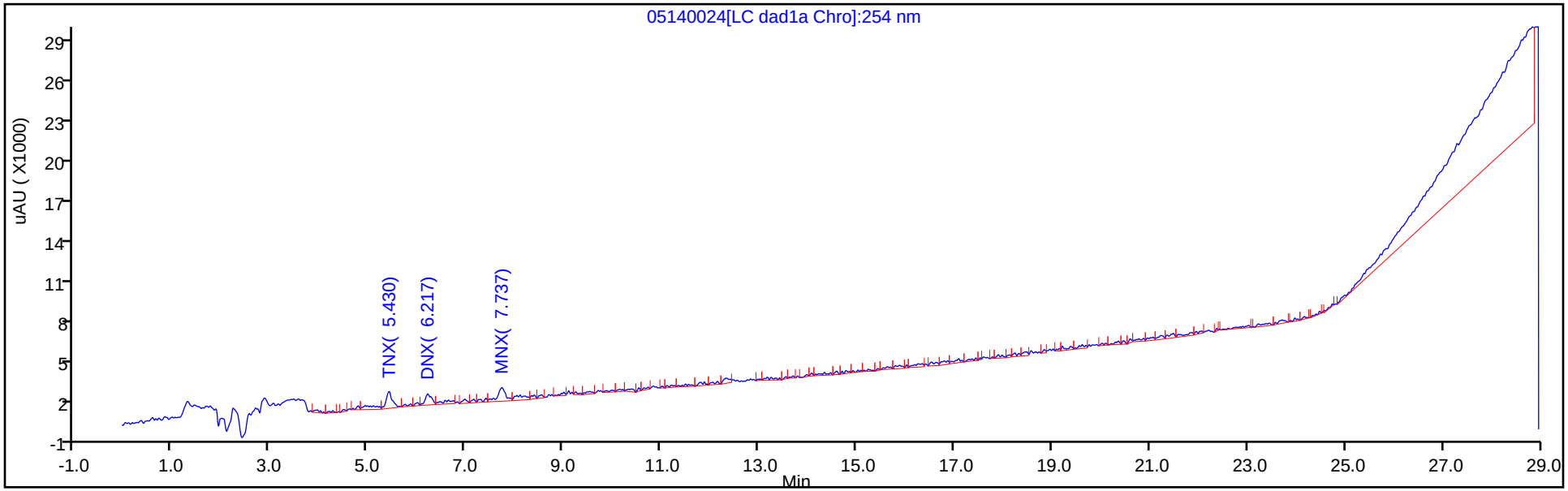
8330 DMT_00006 Amount Added: 1.00 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

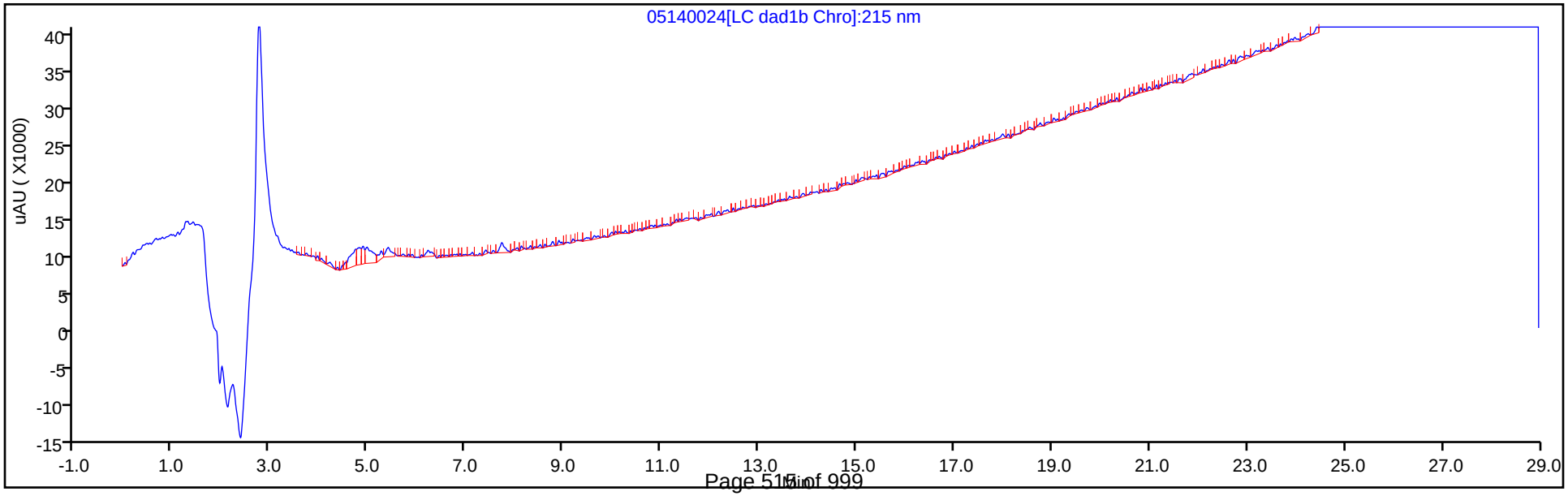
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140024.d				
Injection Date:	15-May-2020 02:11:20	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 2			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	6.592	6.588	6.589	6.591	6.591	6.591	6.591	6.590			6.491 - 6.691	6.590
DNX	6.912	6.914	6.915	6.918	6.917	6.918	6.918	6.916			6.818 - 7.018	6.916
MNX	7.359	7.354	7.355	7.358	7.357	7.358	7.358	7.356			7.208 - 7.508	7.357

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	216933 212722	213207 212002	209810 219067	231497 225632	Ave		217608.702				3.5		20.0			
DNX	117133 161214	137942 160624	149221 163997	167576 165720	Ave		152928.307				11.5		20.0			
MNX	175621 156707	161285 152355	156238 154895	157686 153564	Ave		158544.202				4.7		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	4343 148550	10671 219286	21002 564643	57932	85174	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	2345 112549	6904 164161	14937 414714	41936	64550	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	4099 124459	9411 180763	18233 448024	46005	73151	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend:
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040025.D				
Lims ID:	IC DMT L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	04-Mar-2020 21:00:00	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L8				
Misc. Info.:	280-0089779-025				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:20	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.590	6.591	-0.001	564643	2.50	2.59	M
5 DNX	1	6.916	6.918	-0.002	414714	2.50	2.71	M
6 MNX	1	7.356	7.358	-0.002	448024	2.92	2.83	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

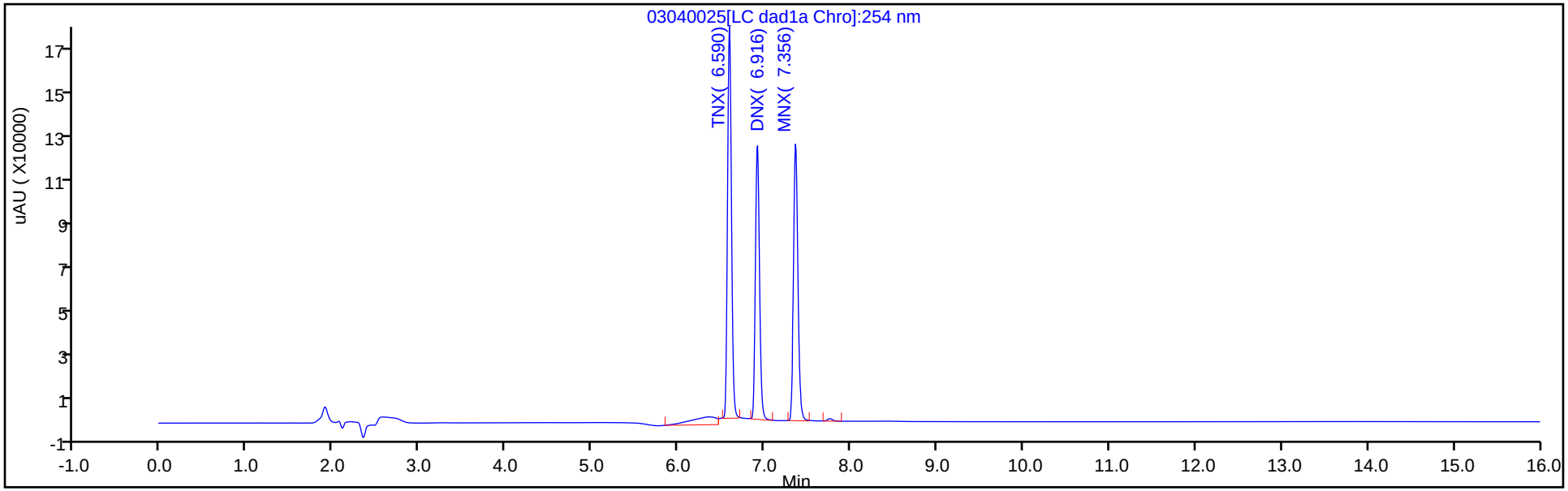
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

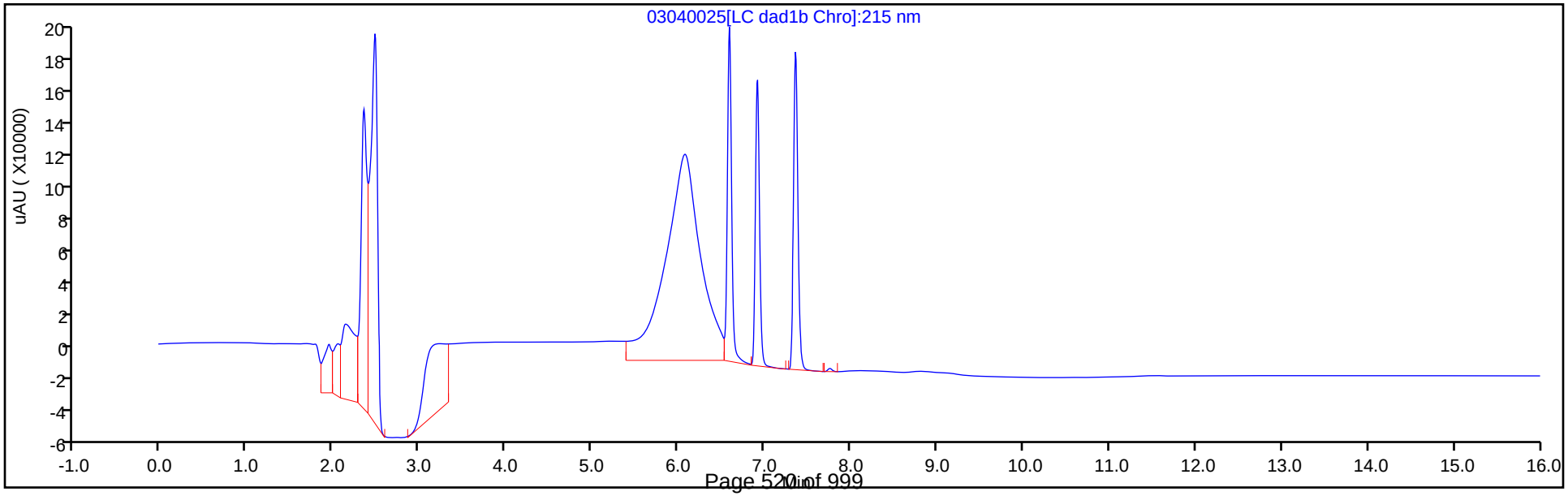
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L8			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

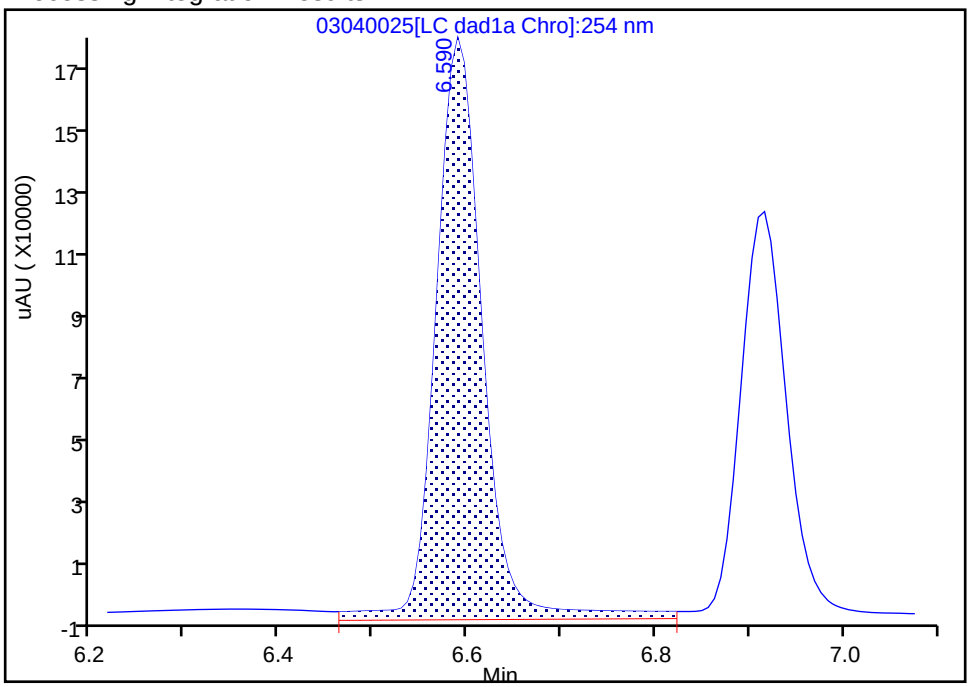
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

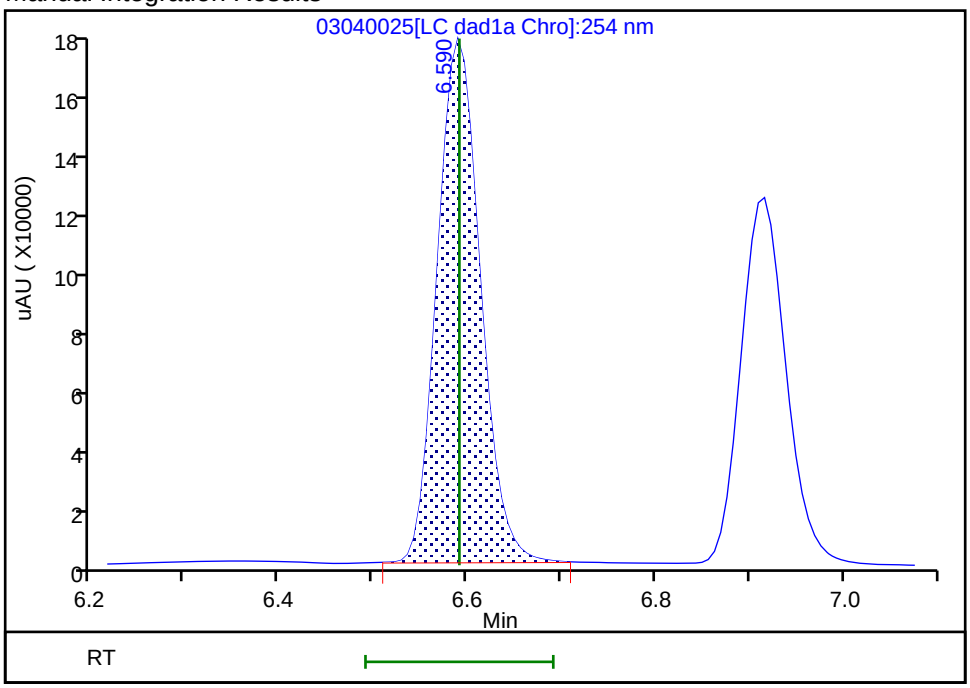
Processing Integration Results

RT: 6.59
Area: 620676
Amount: 2.450904
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 564643
Amount: 2.594763
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:29:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

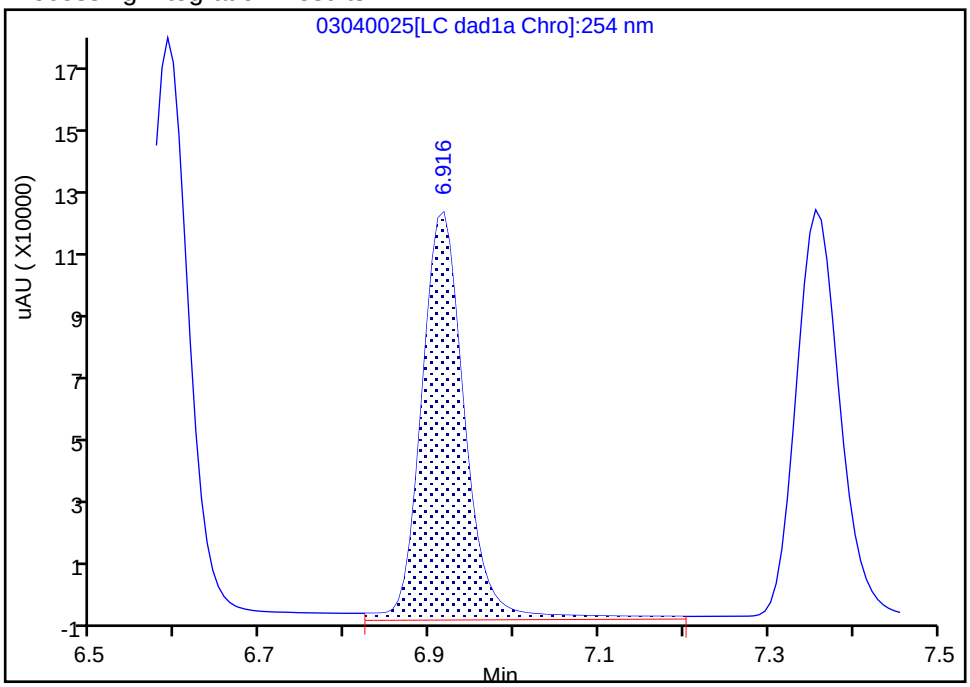
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

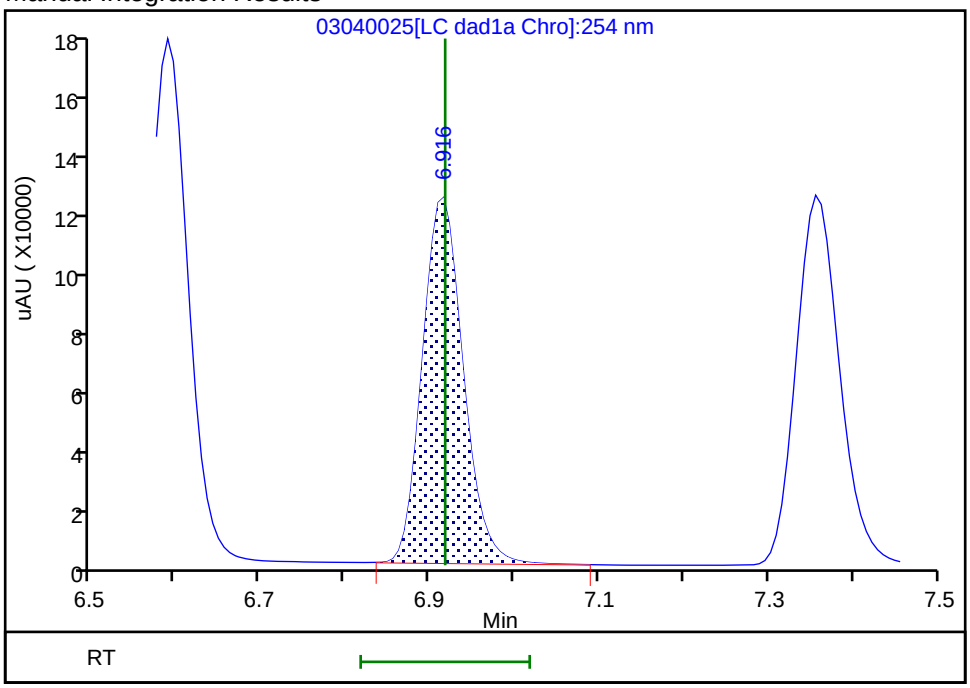
Processing Integration Results

RT: 6.92
Area: 445633
Amount: 2.254277
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 414714
Amount: 2.711820
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:29:52
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

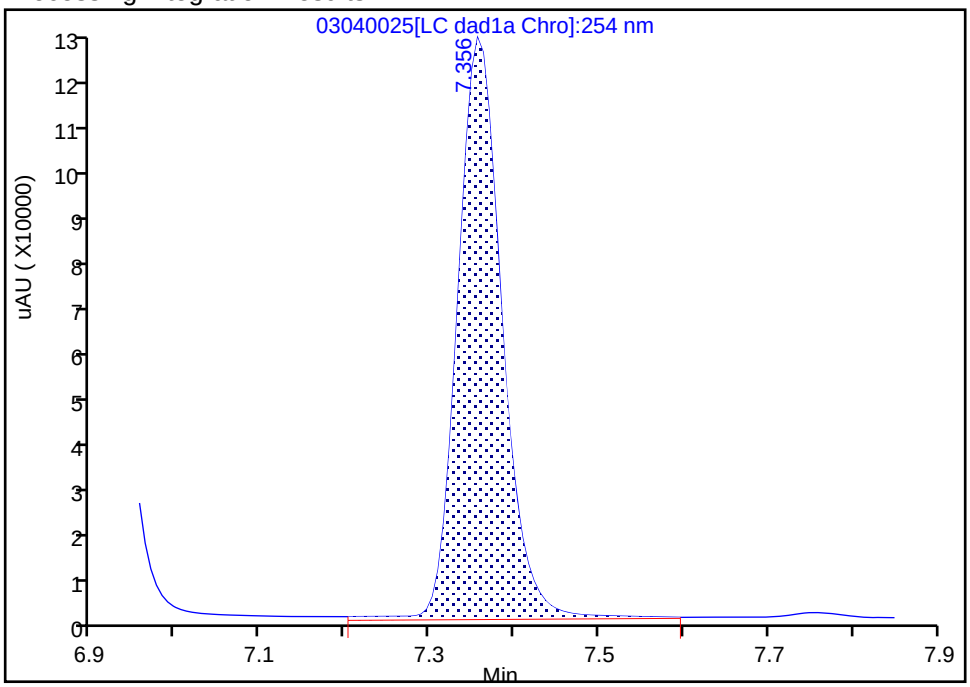
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

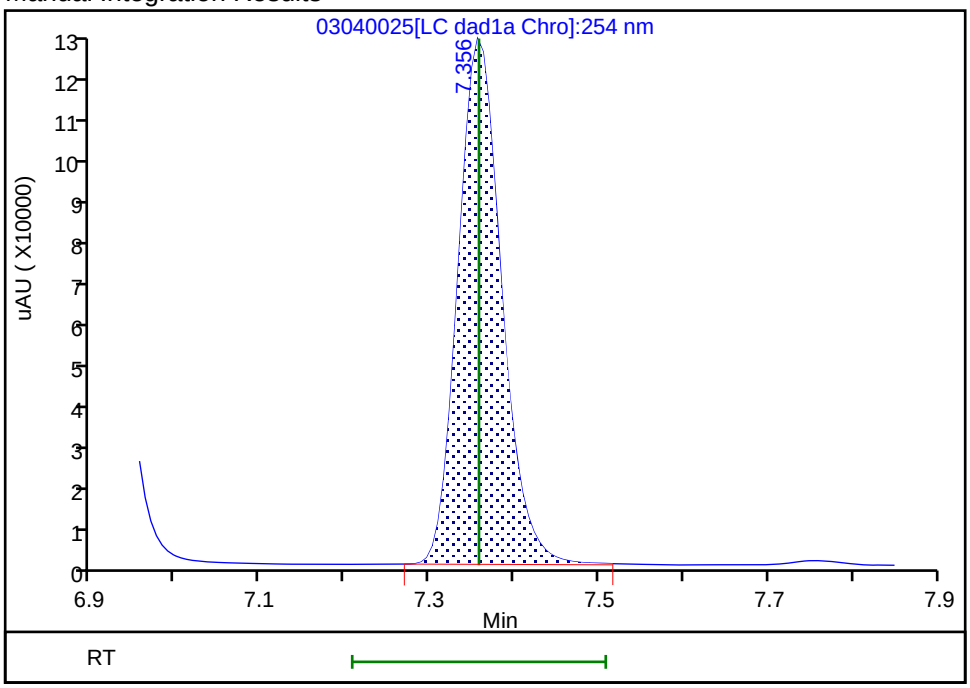
Processing Integration Results

RT: 7.36
Area: 461400
Amount: 2.899748
Amount Units: ug/mL



Manual Integration Results

RT: 7.36
Area: 448024
Amount: 2.825862
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040026.D				
Lims ID:	IC DMT L7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	04-Mar-2020 21:23:03	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L7				
Misc. Info.:	280-0089779-026				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:21	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	219286	1.00	1.01	M
5 DNX	1	6.918	6.918	0.000	164161	1.00	1.07	M
6 MNX	1	7.358	7.358	0.000	180763	1.17	1.14	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

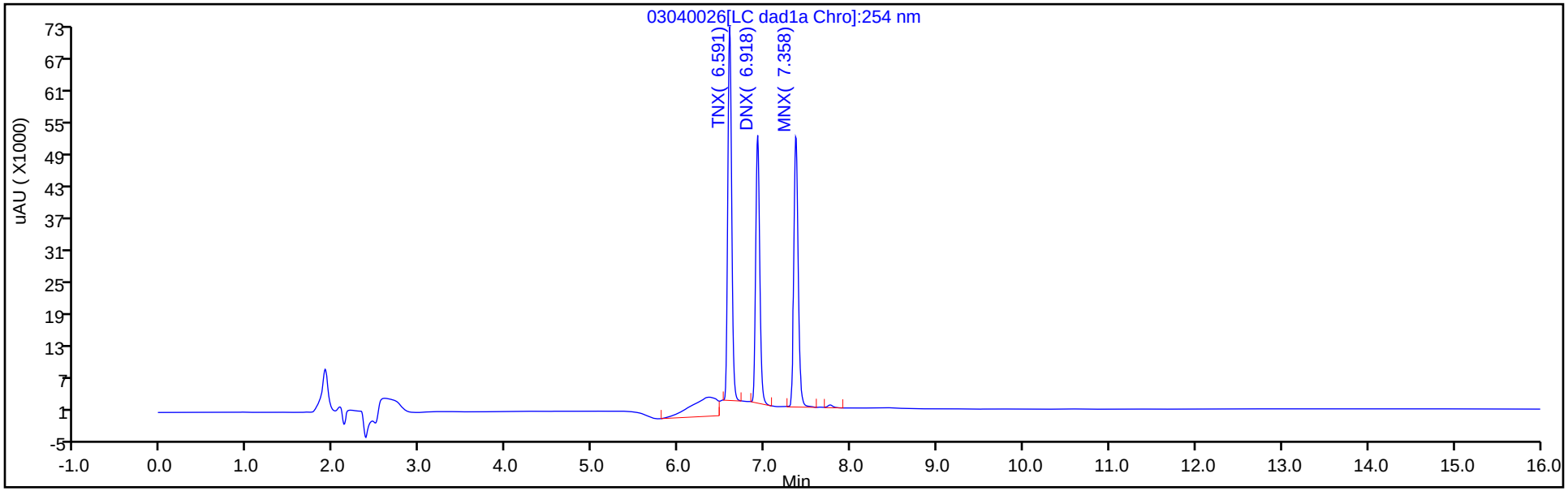
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

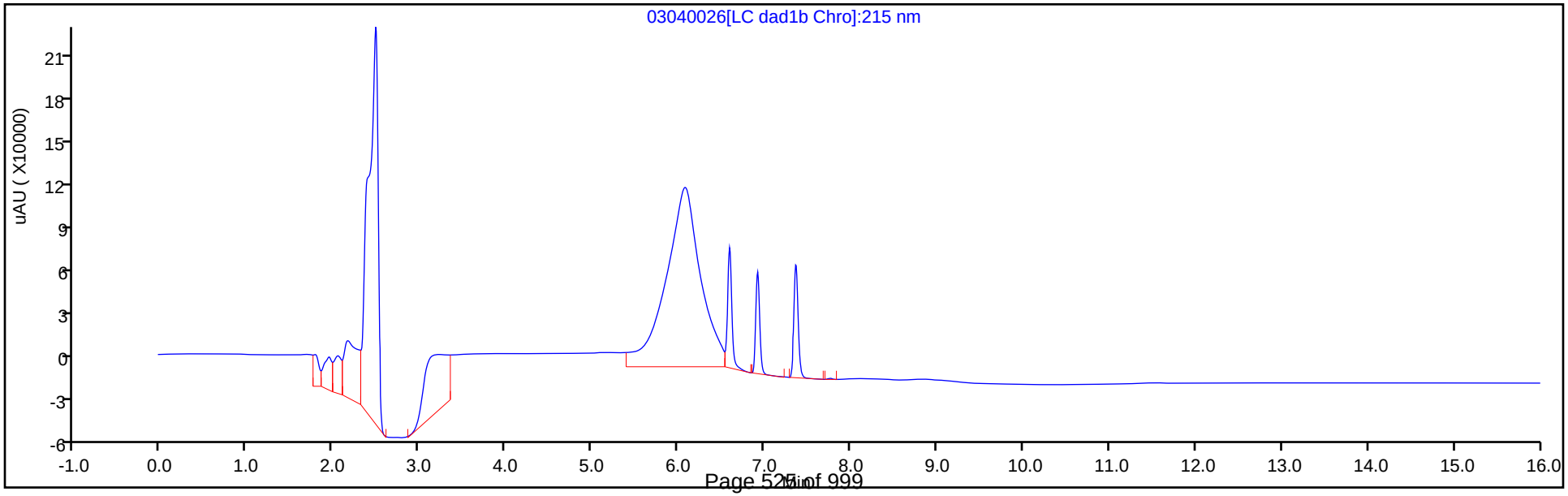
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L7			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

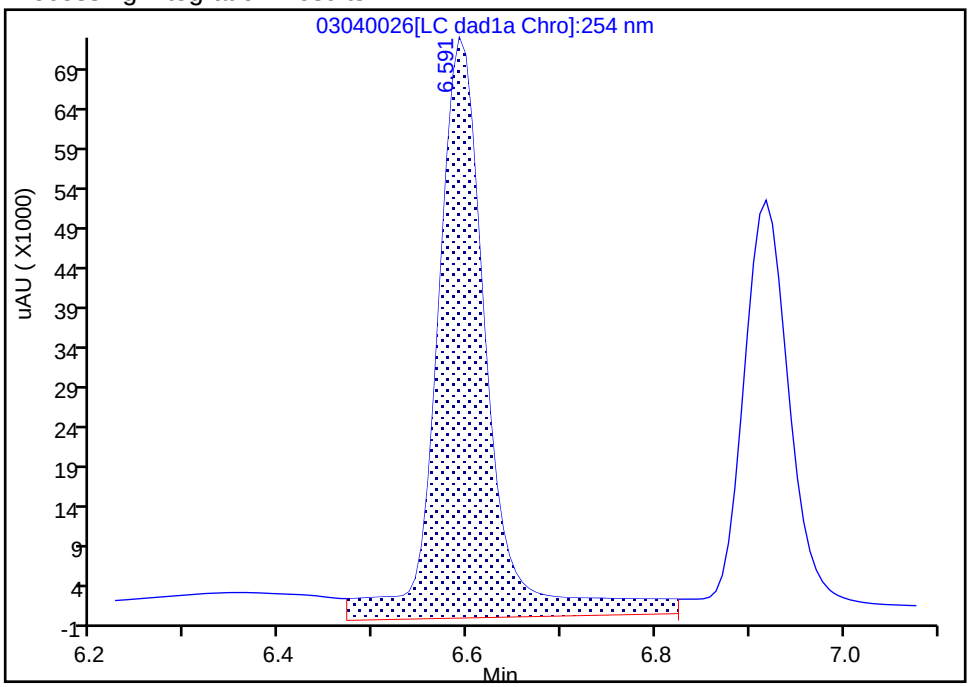
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

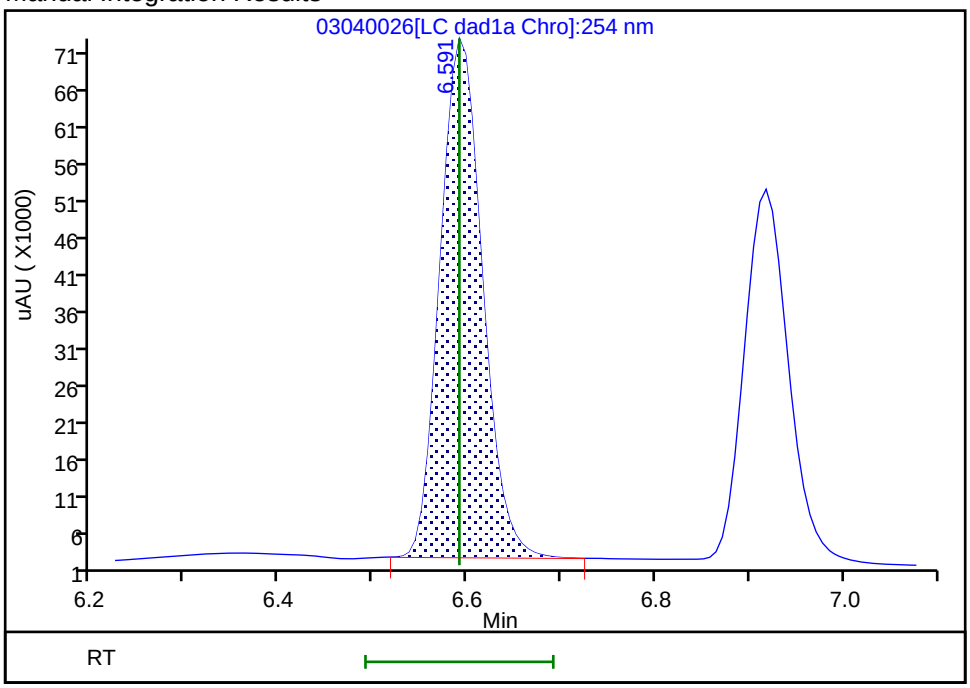
Processing Integration Results

RT: 6.59
Area: 269369
Amount: 1.068967
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 219286
Amount: 1.007708
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

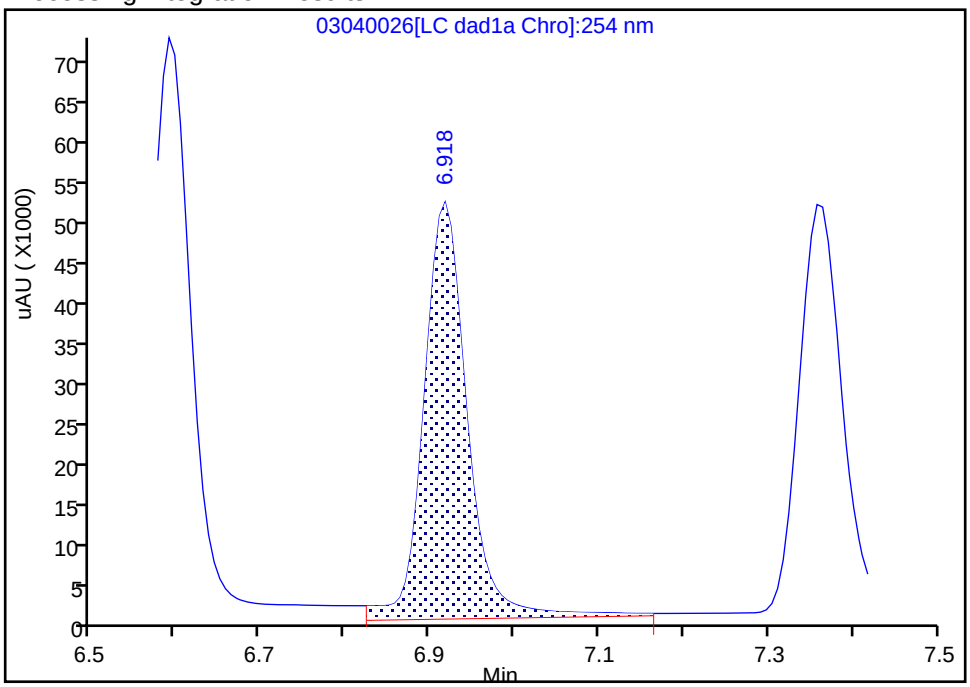
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

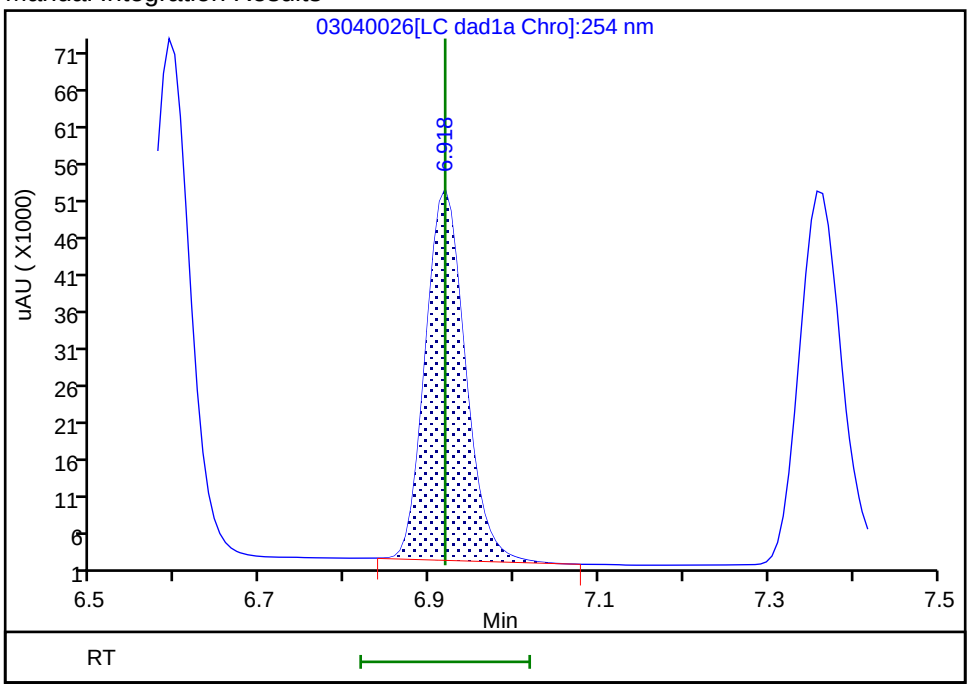
Processing Integration Results

RT: 6.92
Area: 184230
Amount: 0.939283
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 164161
Amount: 1.073451
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040027.D				
Lims ID:	IC DMT L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	04-Mar-2020 21:45:58	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L6				
Misc. Info.:	280-0089779-027				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:23	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	148550	0.7007	0.6826	M
5 DNX	1	6.918	6.918	0.000	112549	0.7007	0.7360	M
6 MNX	1	7.358	7.358	0.000	124459	0.8169	0.7850	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

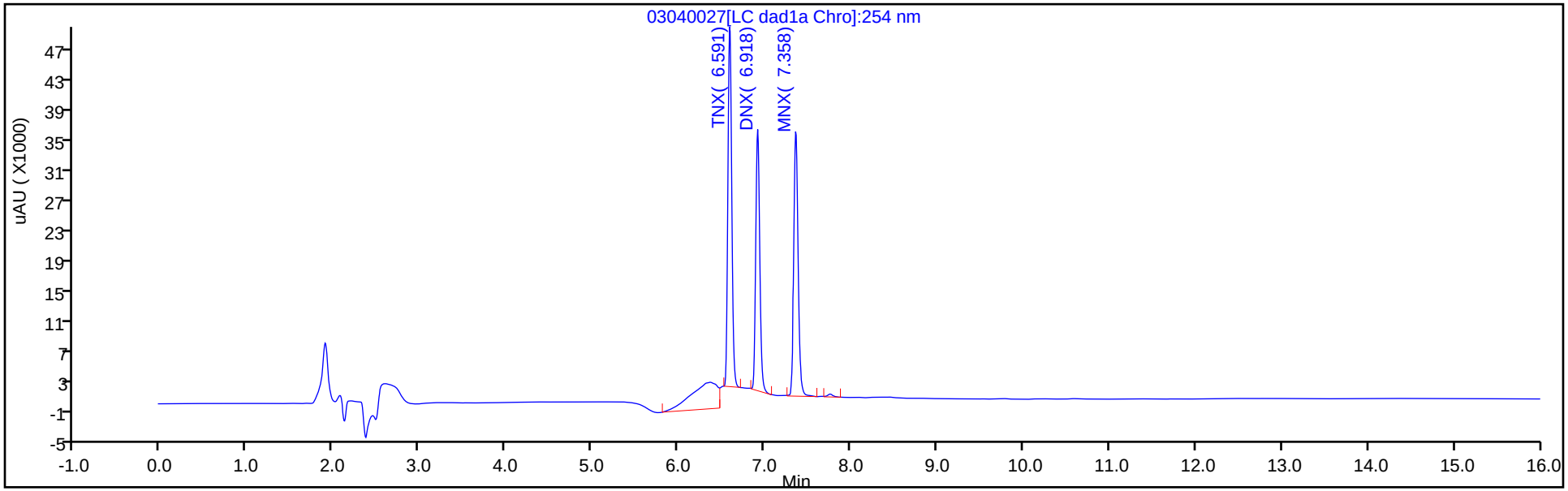
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

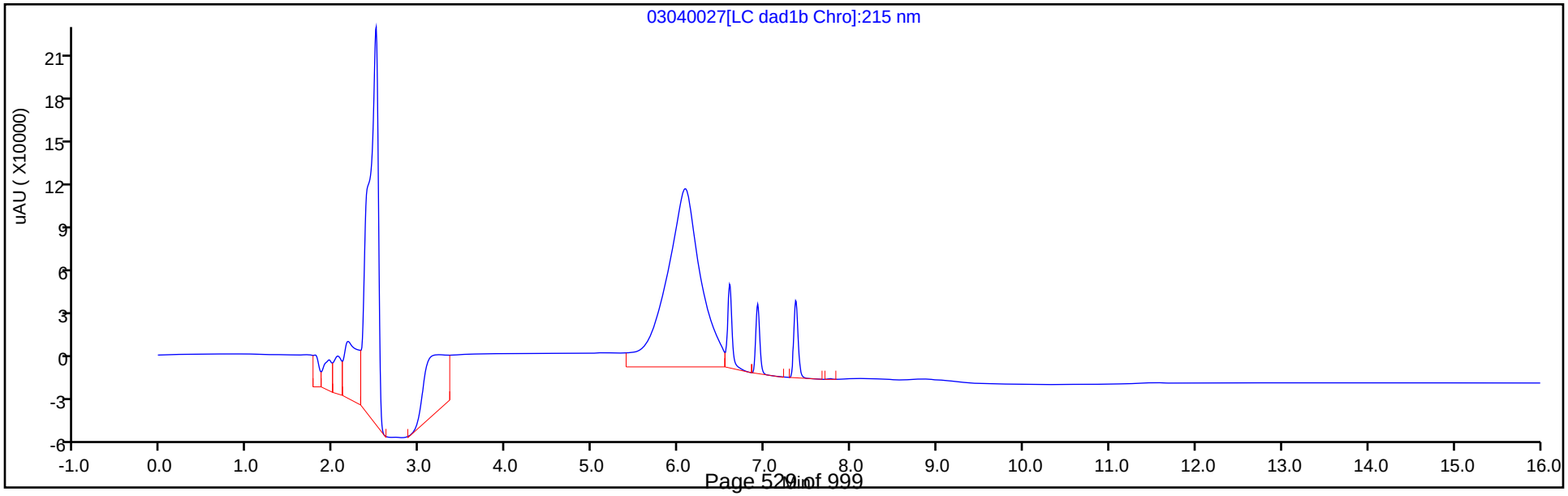
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L6			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

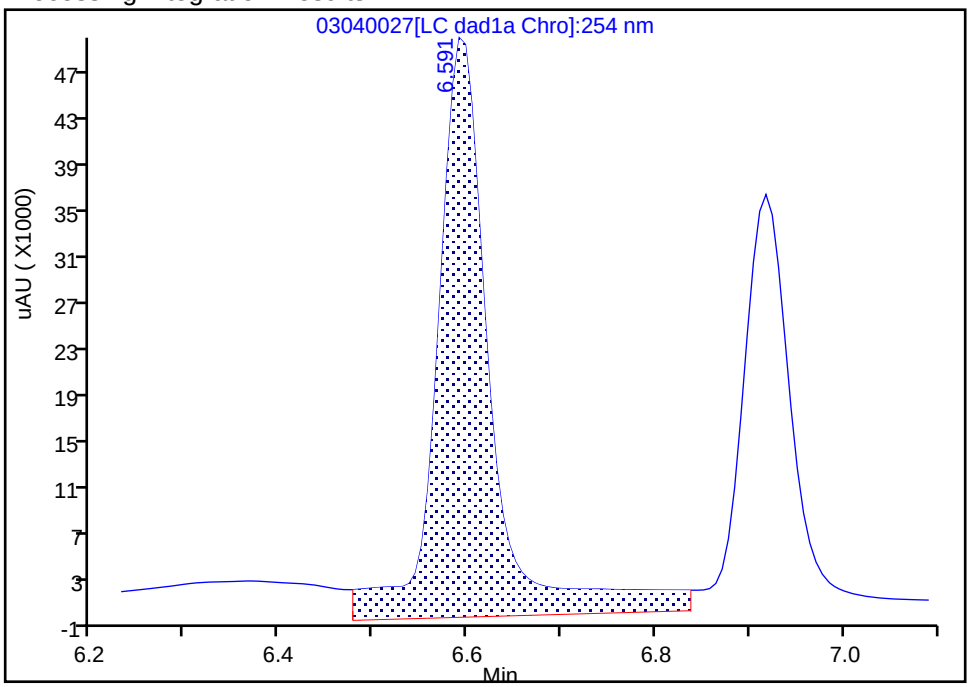
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

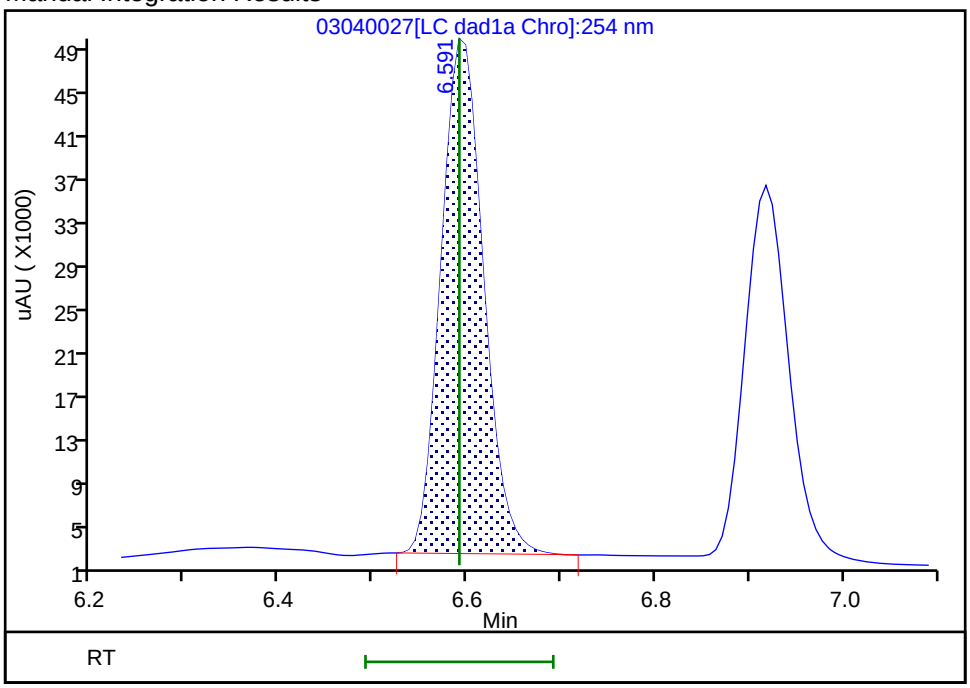
Processing Integration Results

RT: 6.59
Area: 198883
Amount: 0.812342
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 148550
Amount: 0.682647
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

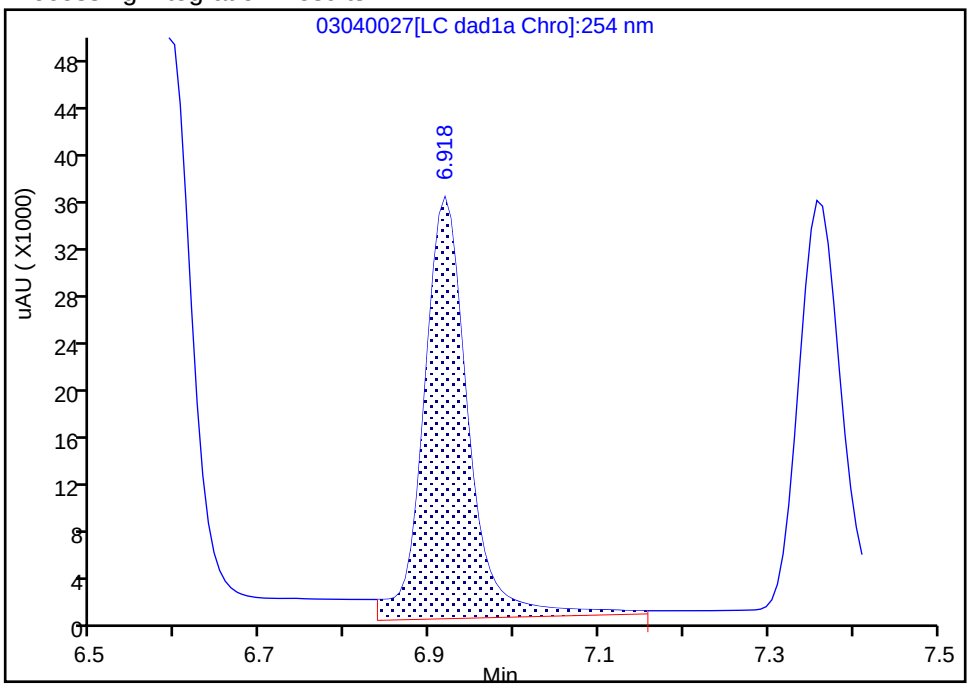
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

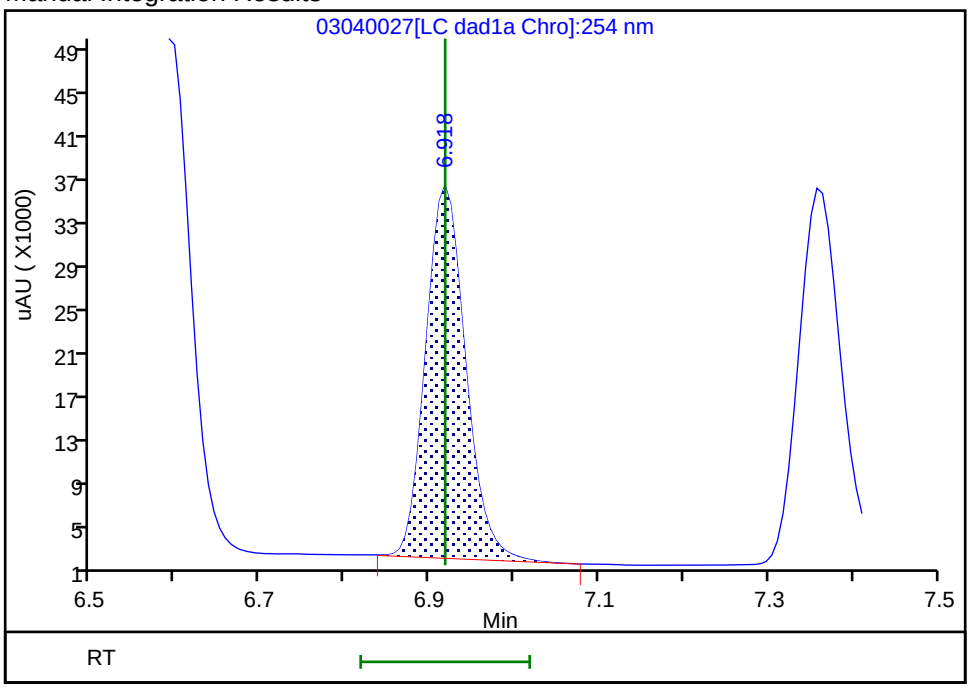
Processing Integration Results

RT: 6.92
Area: 130368
Amount: 0.673274
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 112549
Amount: 0.735959
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:49
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040028.D				
Lims ID:	IC DMT L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	04-Mar-2020 22:09:00	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L5				
Misc. Info.:	280-0089779-028				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:24	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	85174	0.4004	0.3914	M
5 DNX	1	6.917	6.918	-0.001	64550	0.4004	0.4221	M
6 MNX	1	7.357	7.358	-0.001	73151	0.4668	0.4614	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

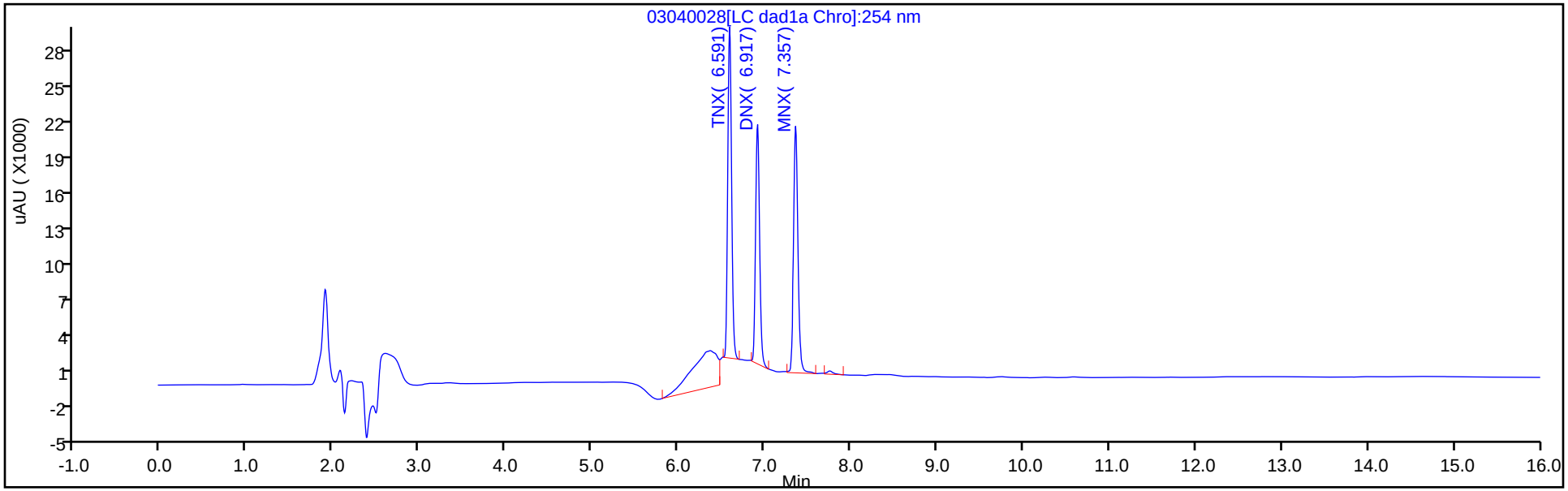
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

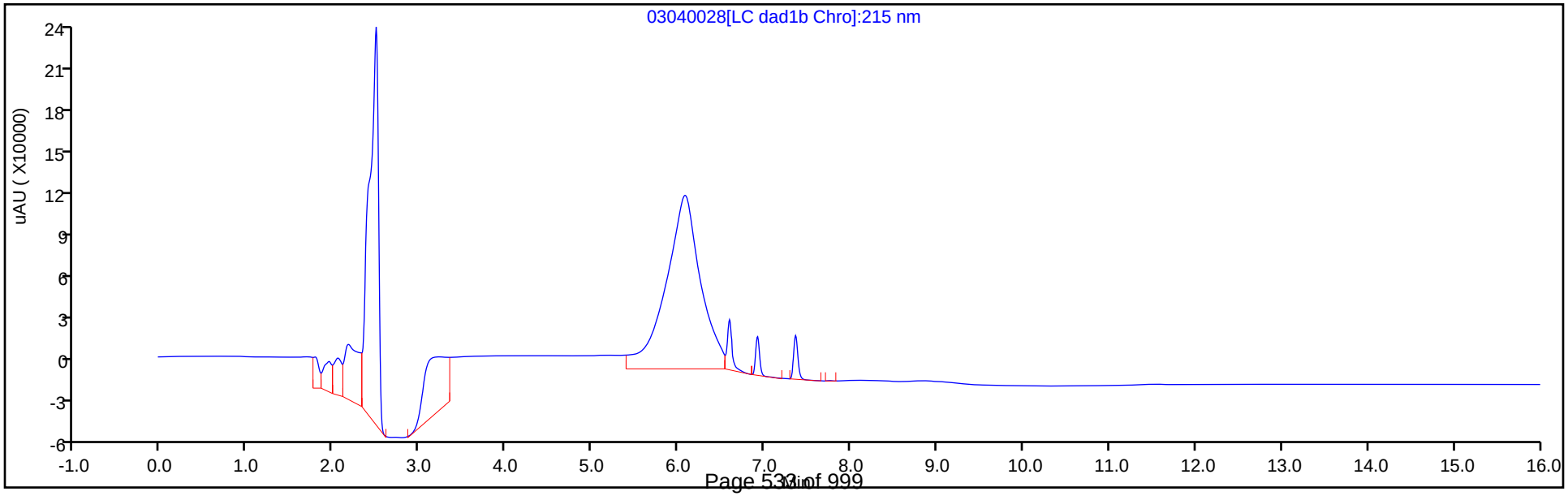
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L5			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

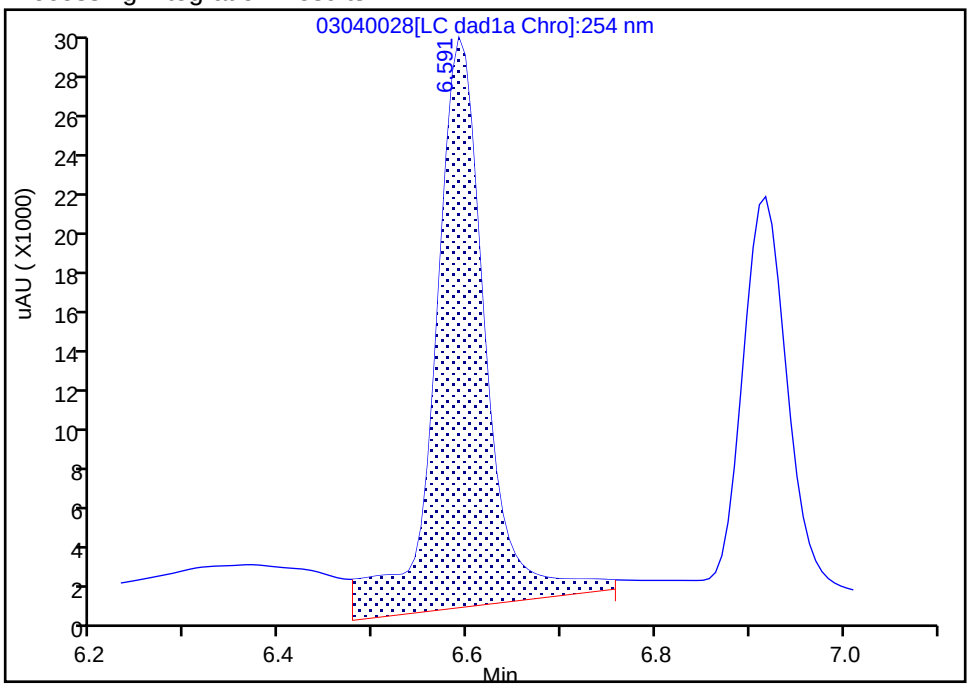
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

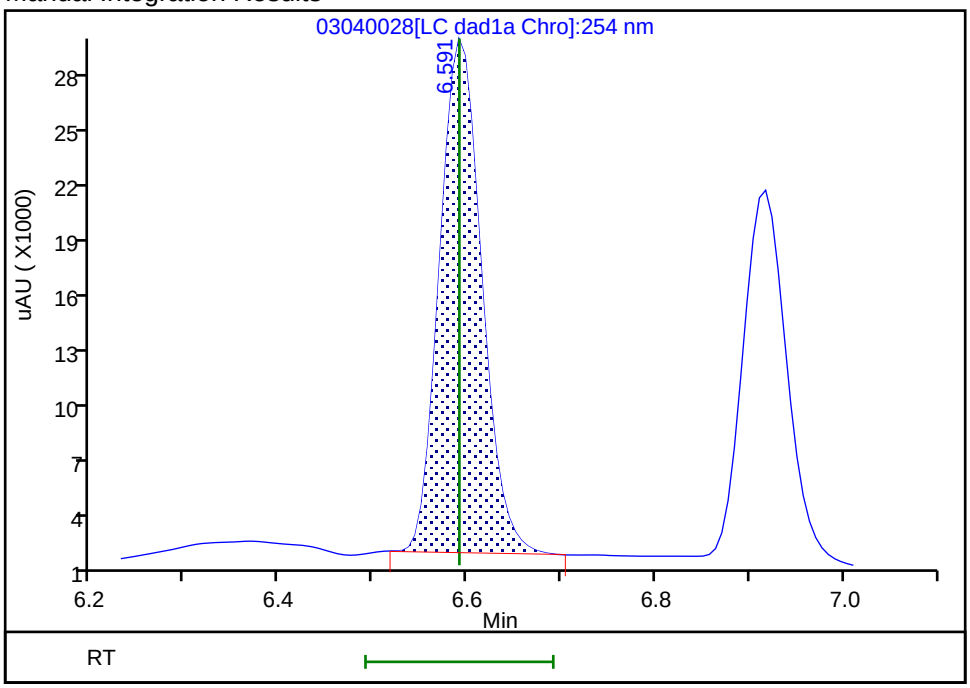
Processing Integration Results

RT: 6.59
Area: 108455
Amount: 0.455381
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 85174
Amount: 0.391409
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

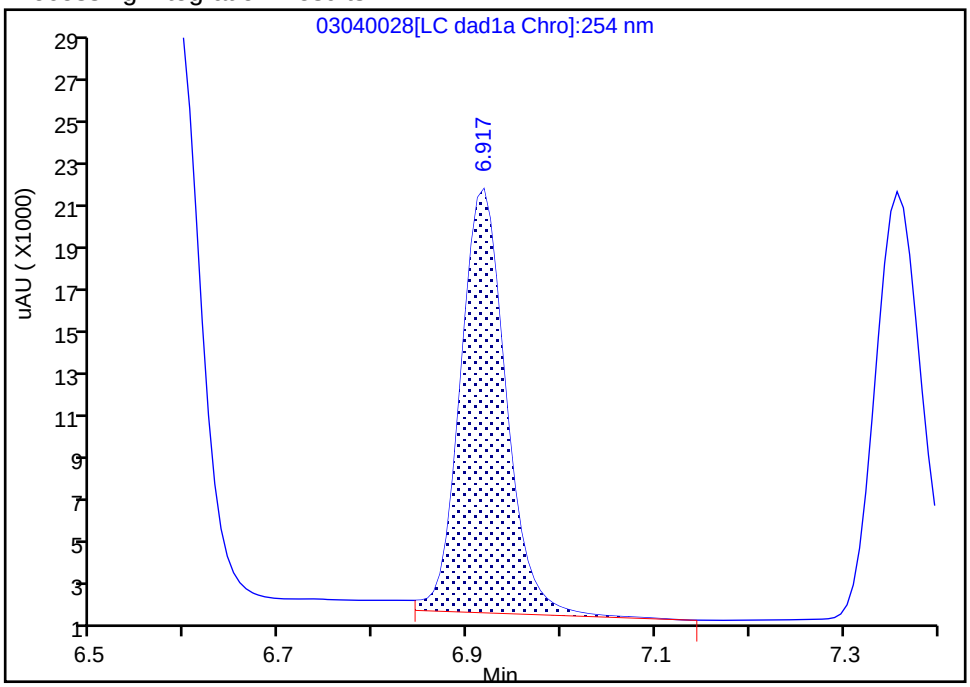
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

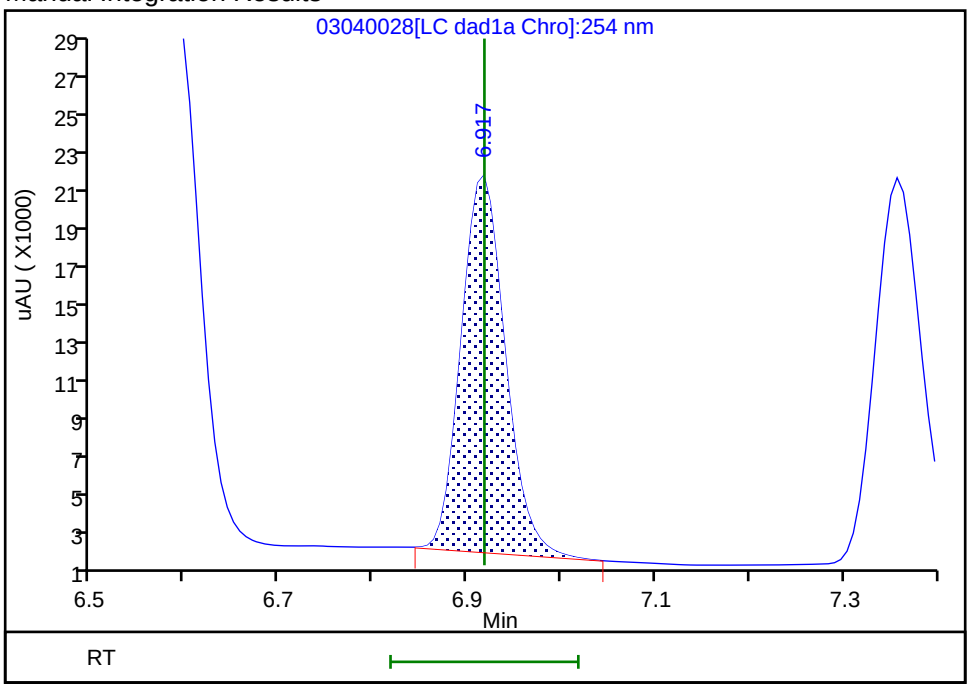
Processing Integration Results

RT: 6.92
Area: 67686
Amount: 0.396160
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 64550
Amount: 0.422093
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:13

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040029.D				
Lims ID:	IC DMT L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	04-Mar-2020 22:31:57	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L4				
Misc. Info.:	280-0089779-029				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:24	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	57932	0.2503	0.2662	M
5 DNX	1	6.918	6.918	0.000	41936	0.2503	0.2742	M
6 MNX	1	7.358	7.358	0.000	46005	0.2918	0.2902	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

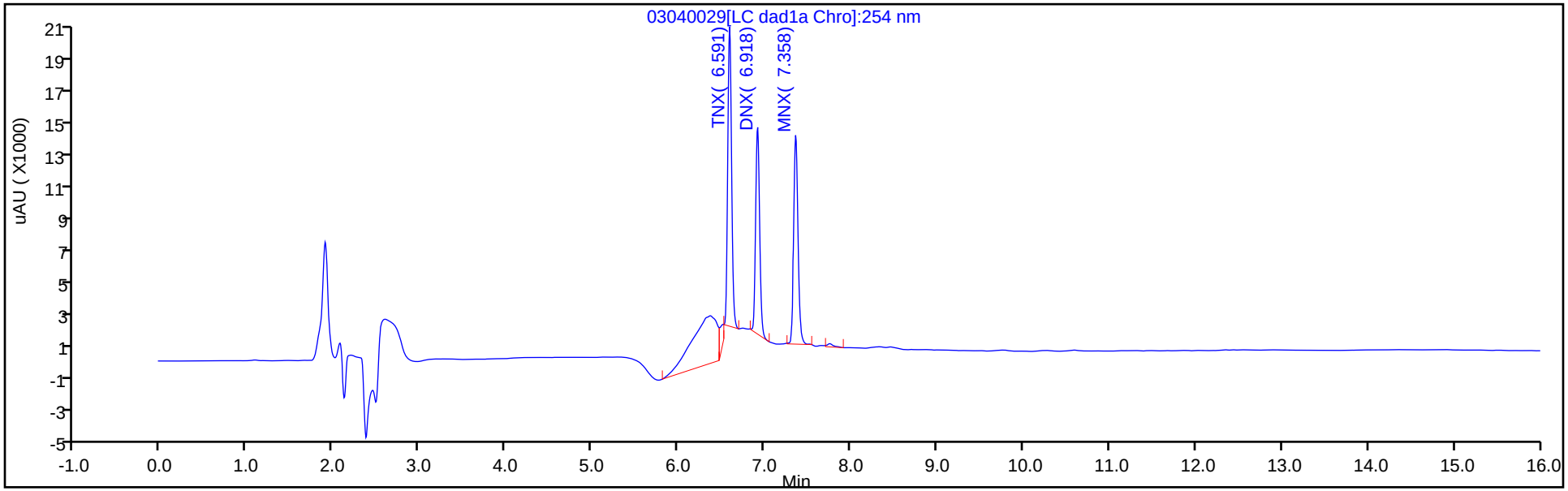
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

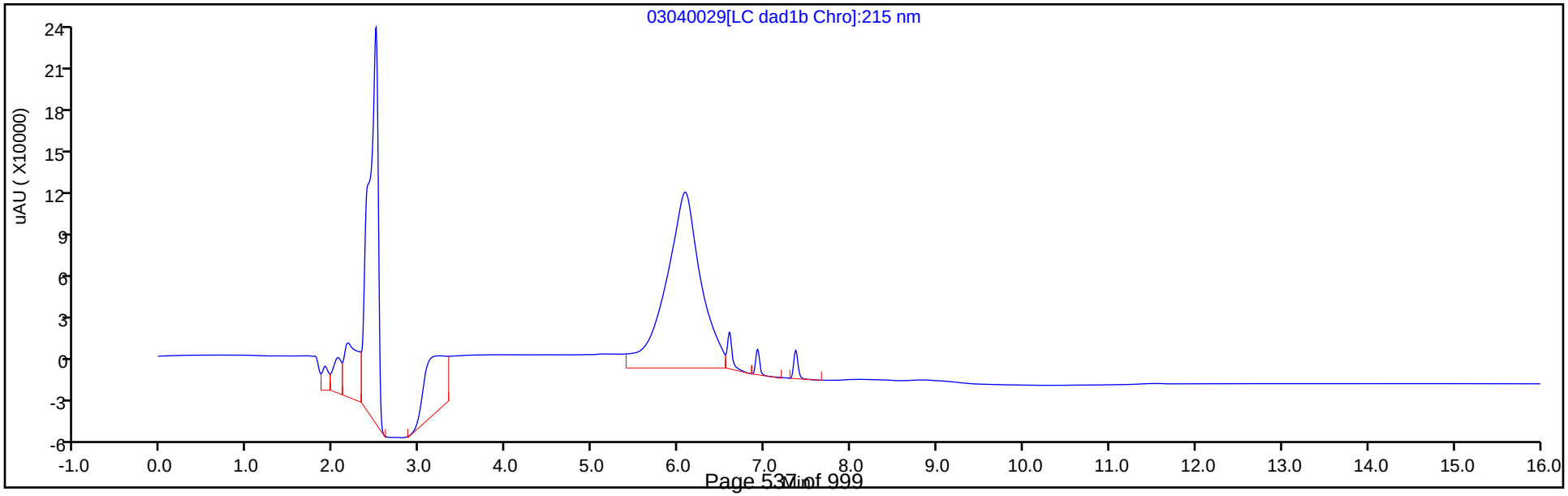
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L4			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

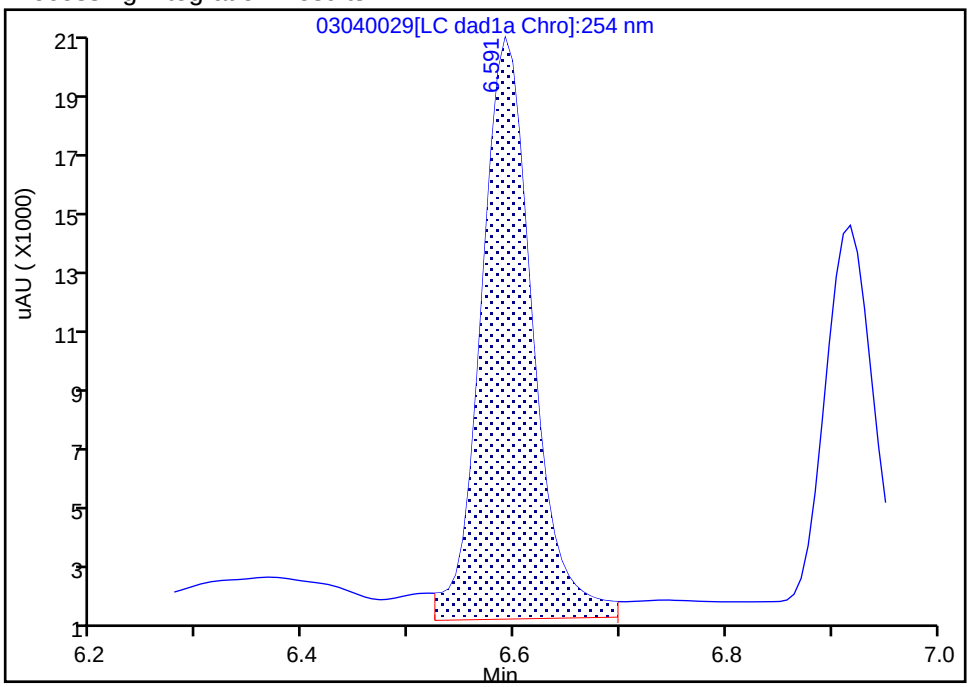
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

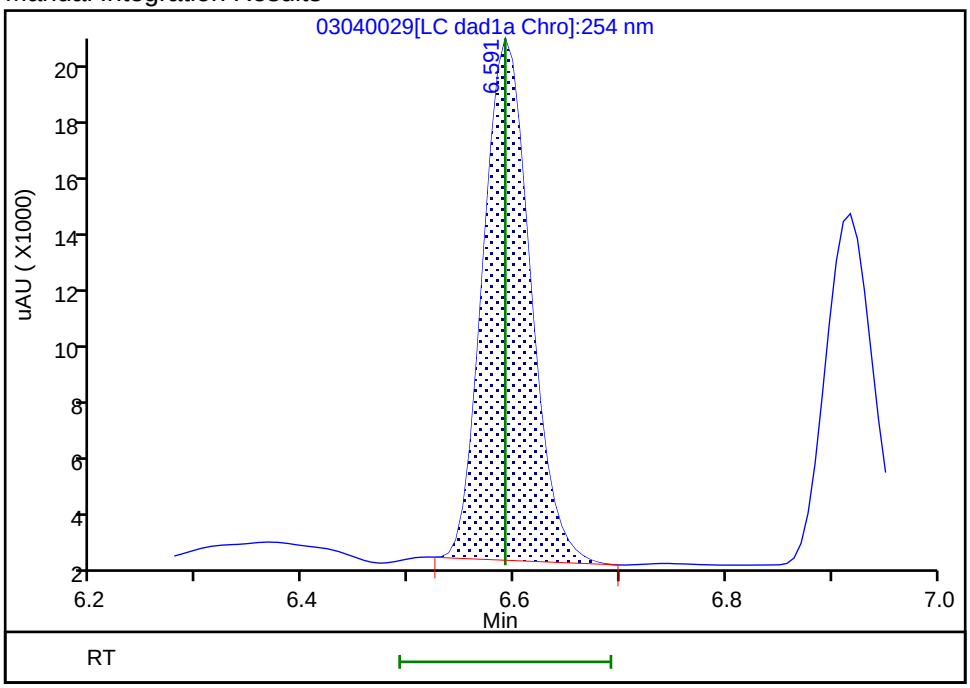
Processing Integration Results

RT: 6.59
Area: 65279
Amount: 0.274722
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 57932
Amount: 0.266221
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

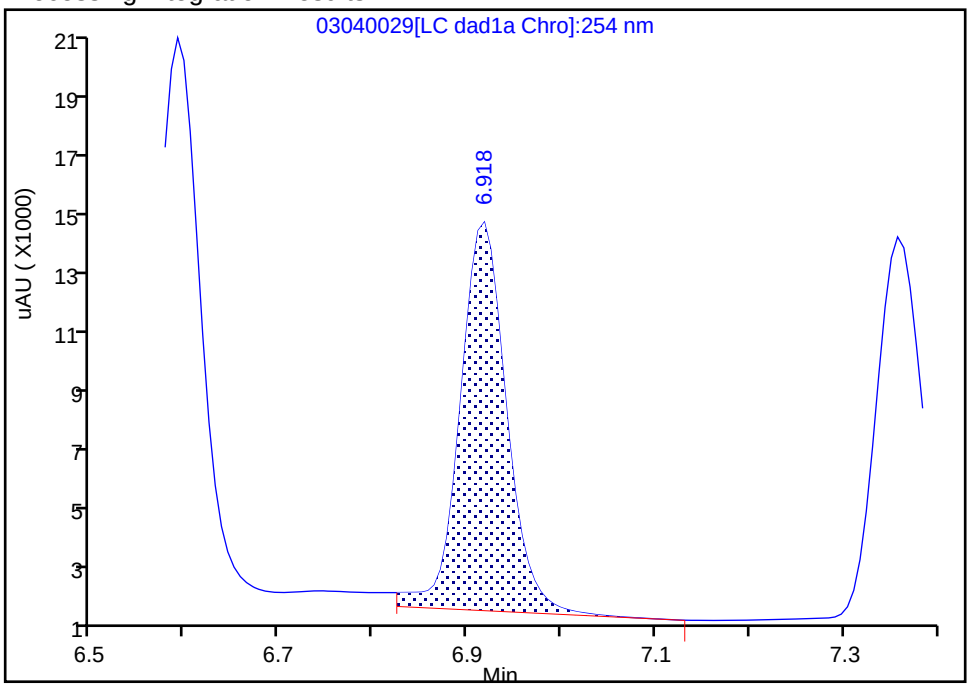
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

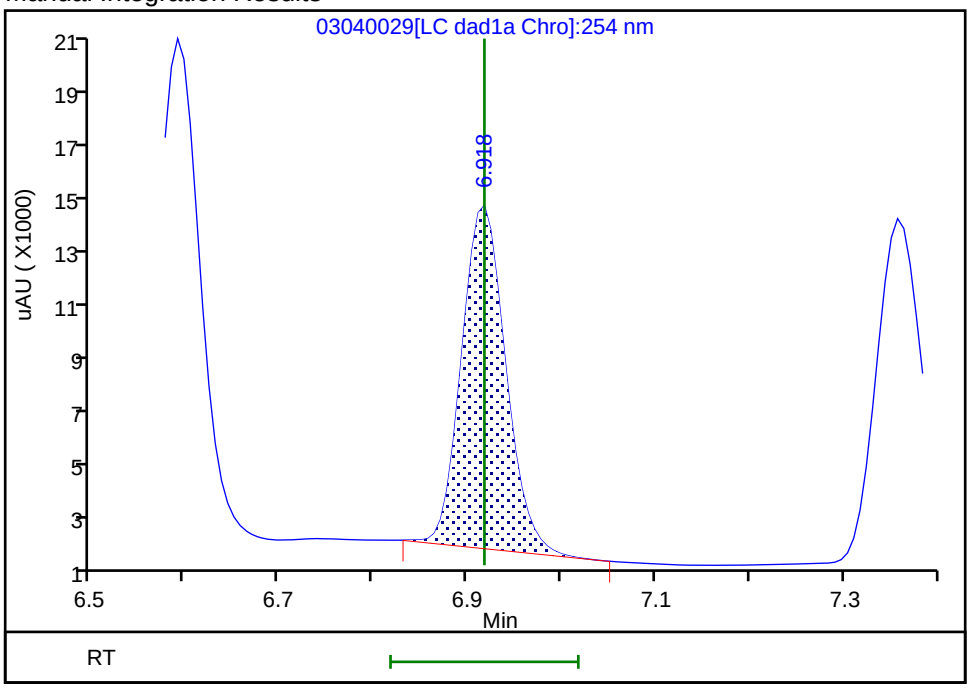
Processing Integration Results

RT: 6.92
Area: 45380
Amount: 0.263025
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 41936
Amount: 0.274220
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040030.D				
Lims ID:	IC DMT L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	04-Mar-2020 22:54:53	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L3				
Misc. Info.:	280-0089779-030				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:25	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.589	6.591	-0.002	21002	0.1001	0.0965	M
5 DNX	1	6.915	6.918	-0.003	14937	0.1001	0.0977	M
6 MNX	1	7.355	7.358	-0.003	18233	0.1167	0.1150	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

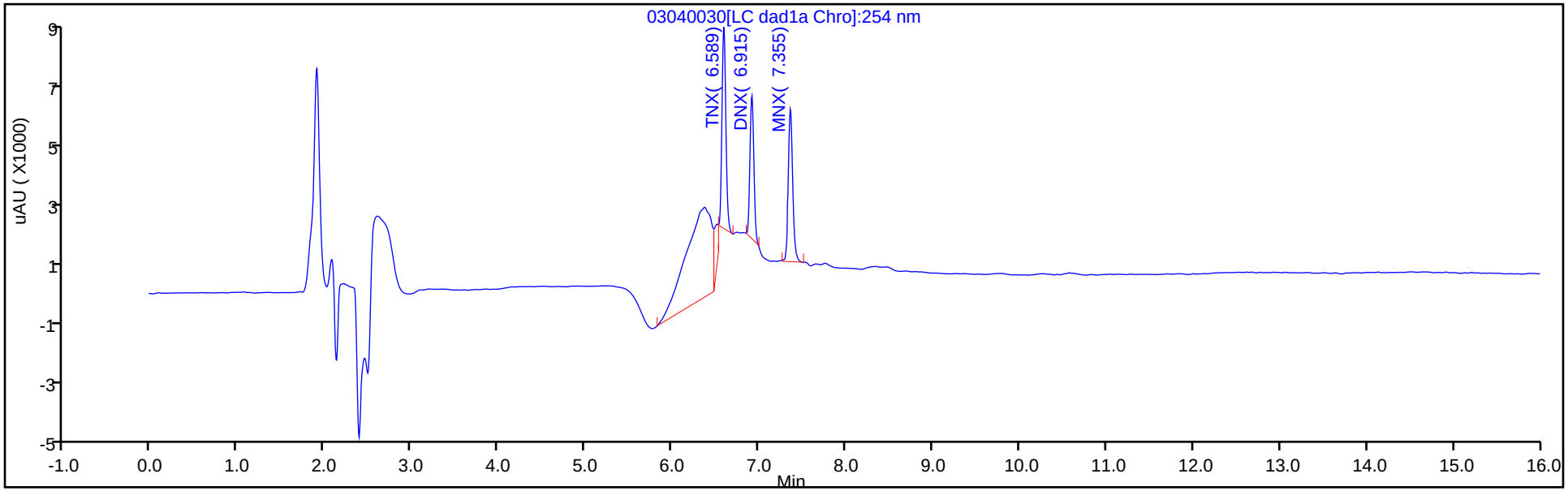
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

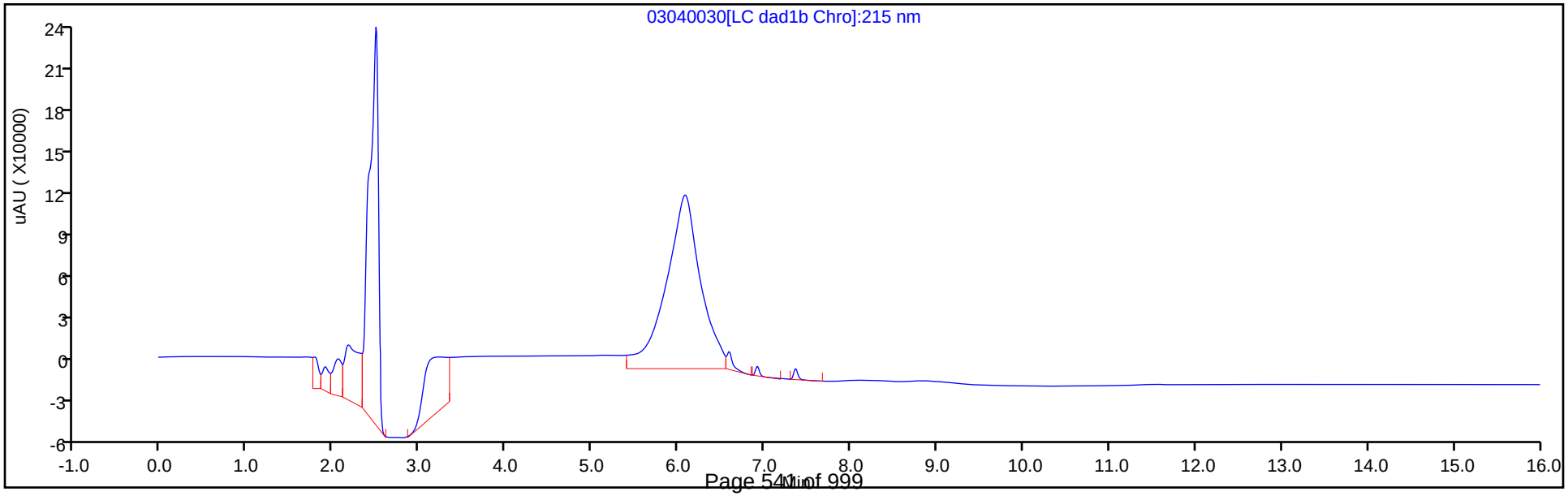
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L3			Worklist Smp#:	30
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

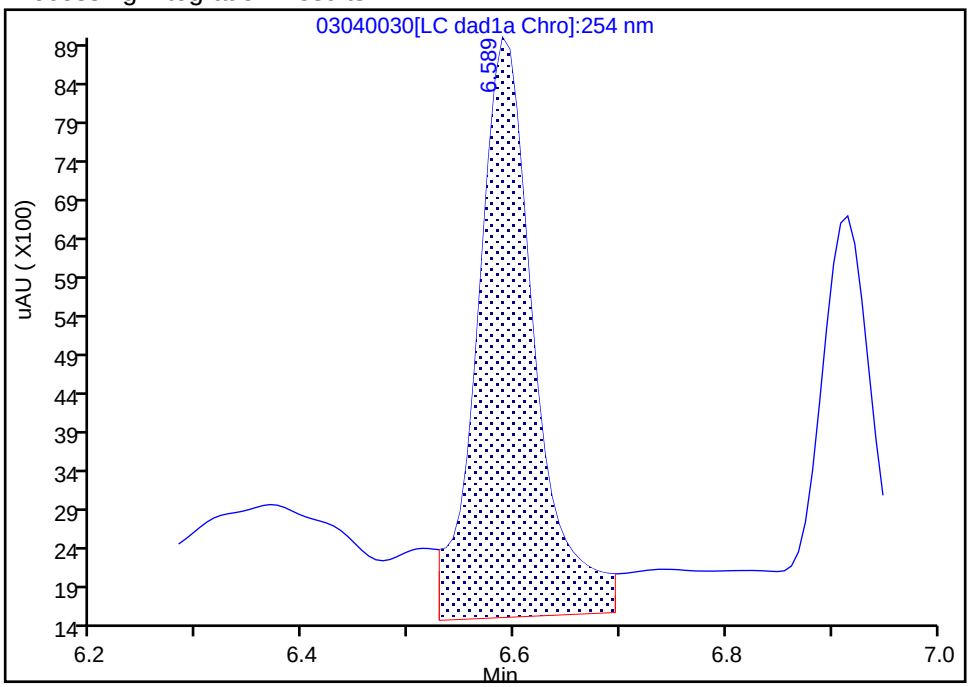
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

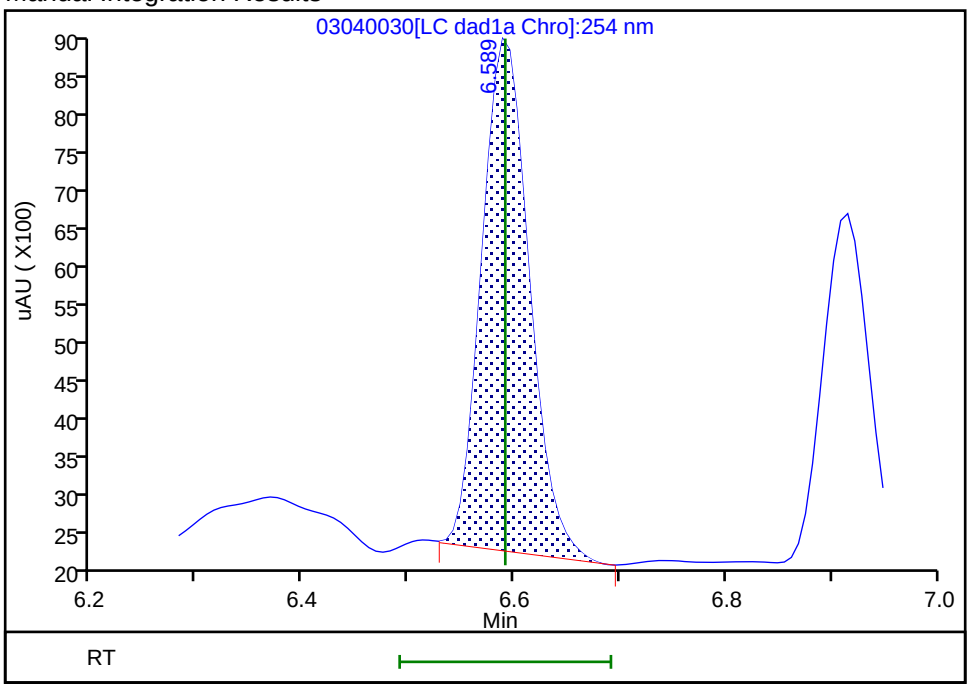
Processing Integration Results

RT: 6.59
Area: 27927
Amount: 0.102862
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 21002
Amount: 0.096513
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:59
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

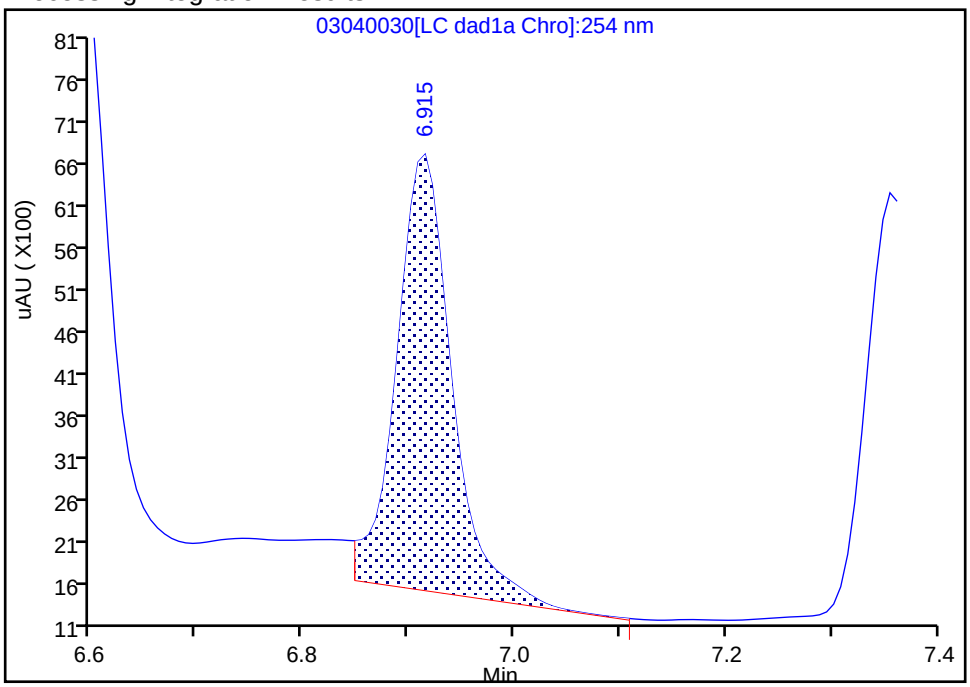
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

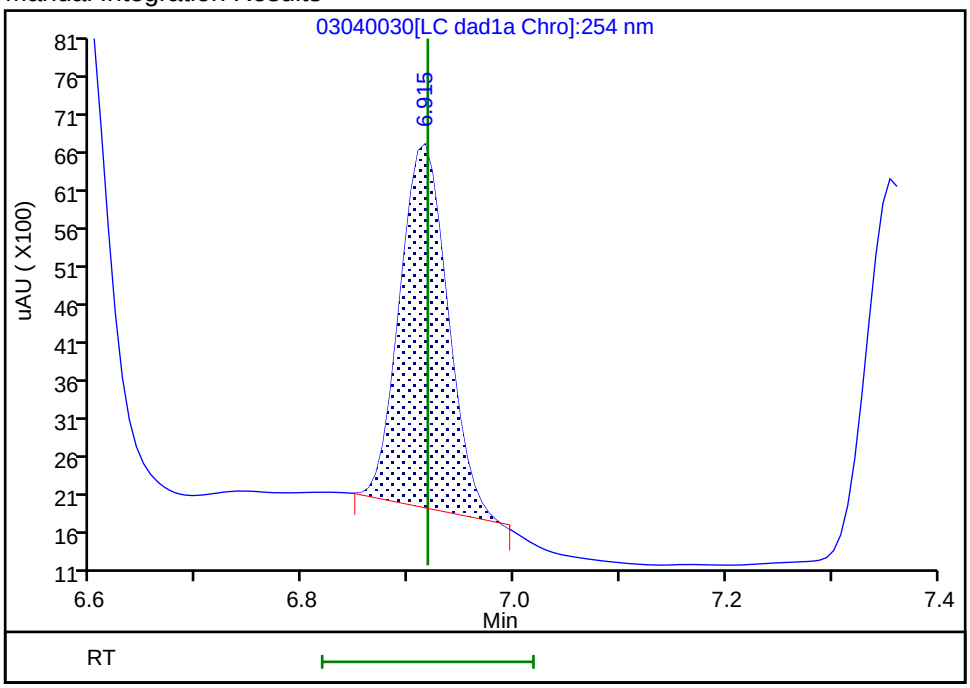
Processing Integration Results

RT: 6.92
Area: 18794
Amount: 0.101797
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 14937
Amount: 0.097673
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:04

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040031.D				
Lims ID:	IC DMT L2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	04-Mar-2020 23:17:52	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L2				
Misc. Info.:	280-0089779-031				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:26	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.588	6.591	-0.003	10671	0.0501	0.0490	M
5 DNX	1	6.914	6.918	-0.004	6904	0.0501	0.0451	M
6 MNX	1	7.354	7.358	-0.004	9411	0.0584	0.0594	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

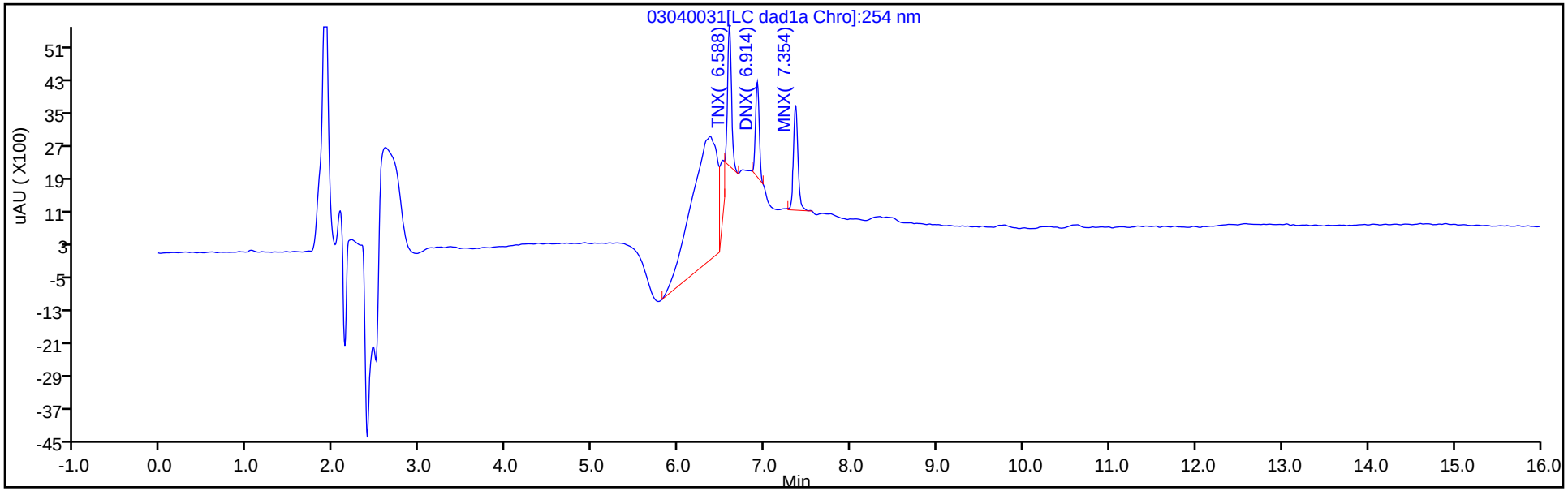
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

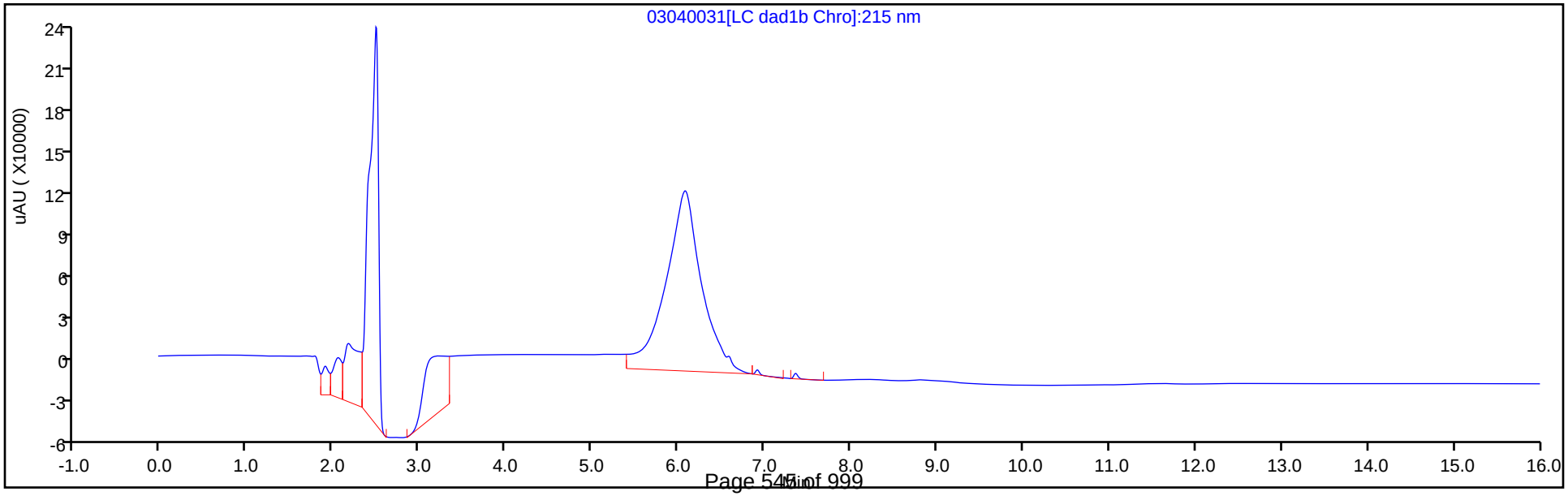
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L2			Worklist Smp#:	31
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

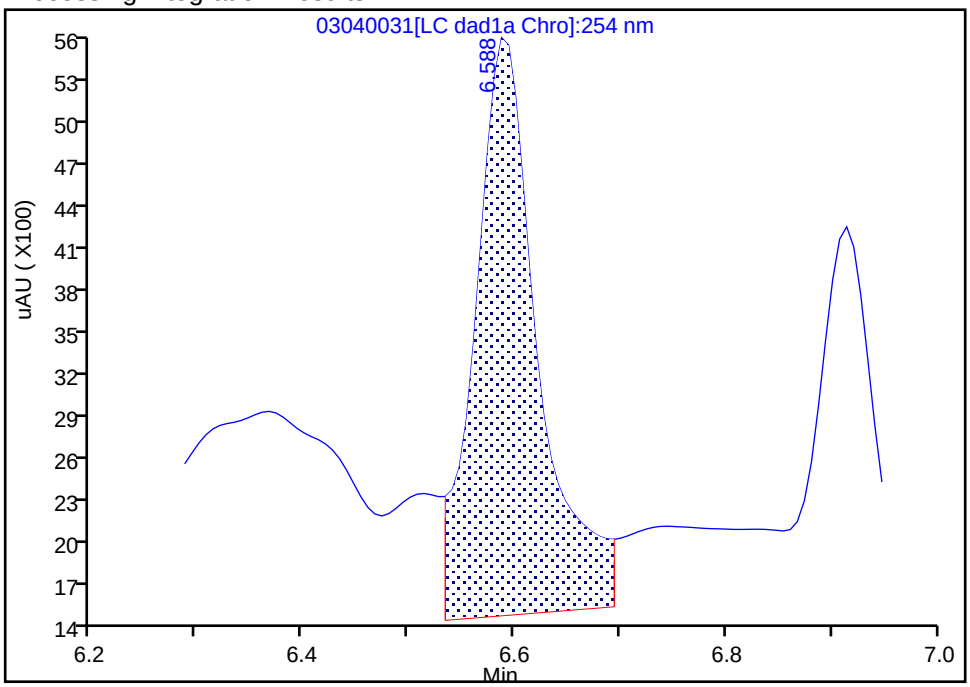
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

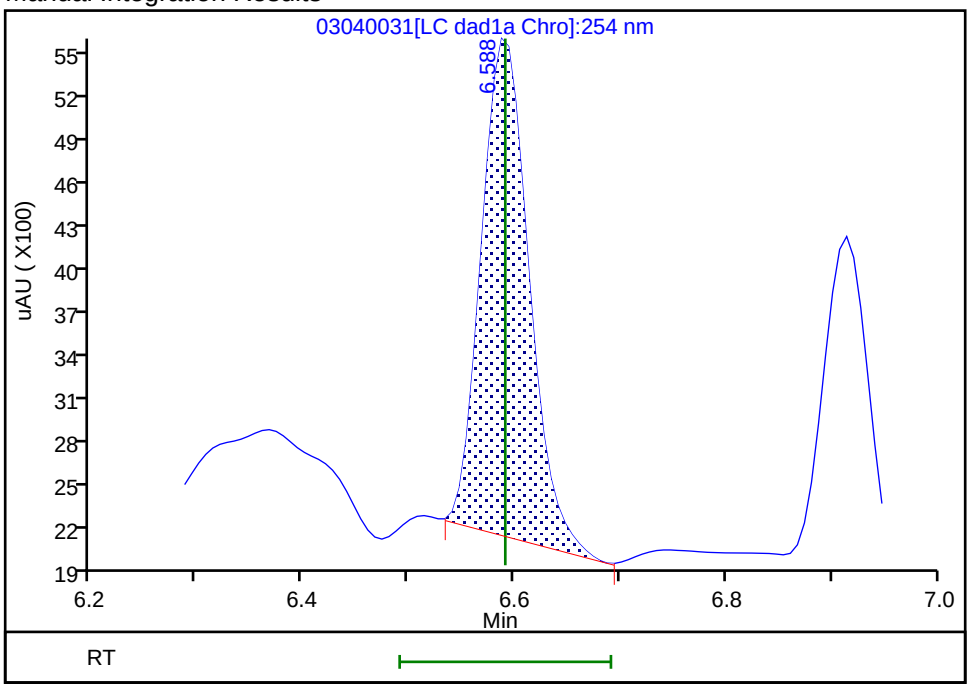
Processing Integration Results

RT: 6.59
Area: 17098
Amount: 0.055915
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 10671
Amount: 0.049038
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

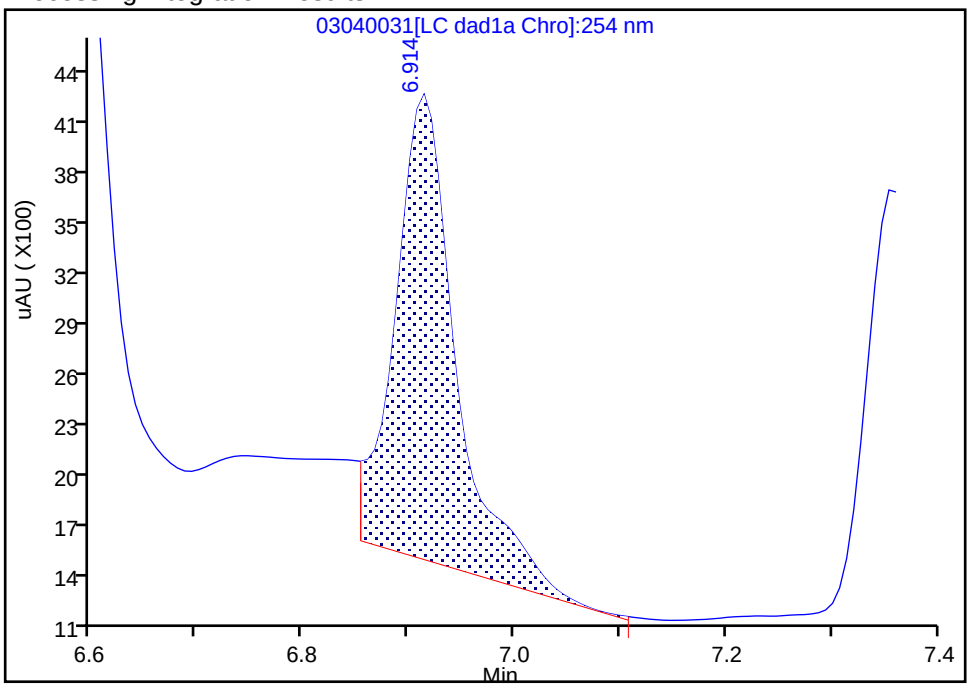
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

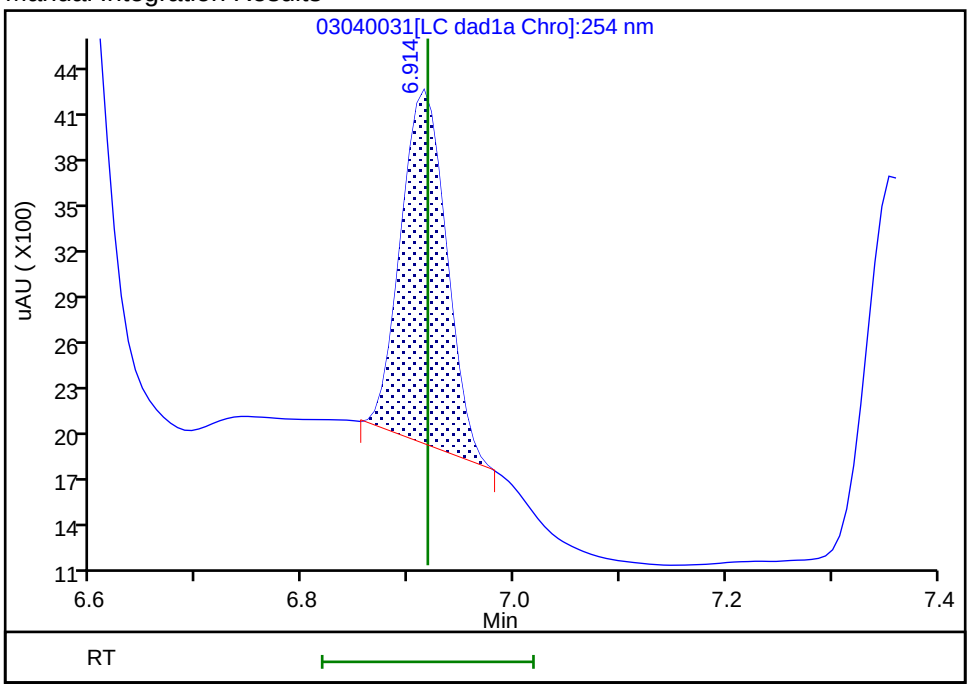
Processing Integration Results

RT: 6.91
Area: 11060
Amount: 0.055514
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 6904
Amount: 0.045145
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:28

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Lims ID:	IC DMT L1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	04-Mar-2020 23:40:46	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L1				
Misc. Info.:	280-0089779-032				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:27	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.592	6.591	0.001	4343	0.0200	0.0200	M
5 DNX	1	6.912	6.918	-0.006	2345	0.0200	0.0153	M
6 MNX	1	7.359	7.358	0.001	4099	0.0233	0.0259	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

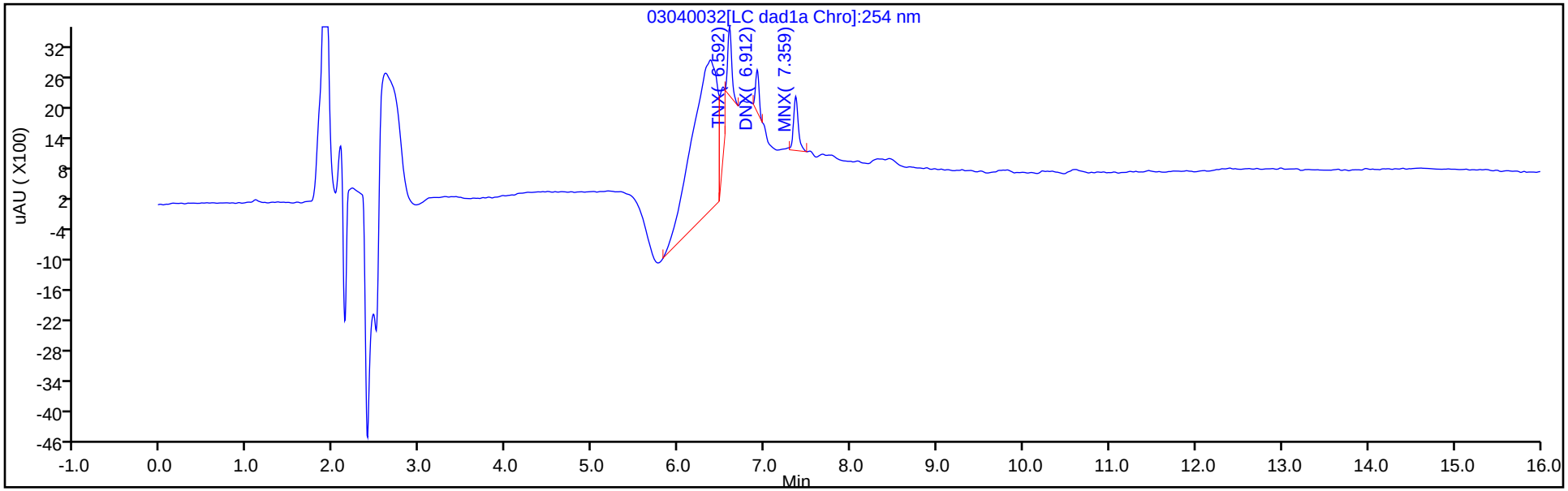
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

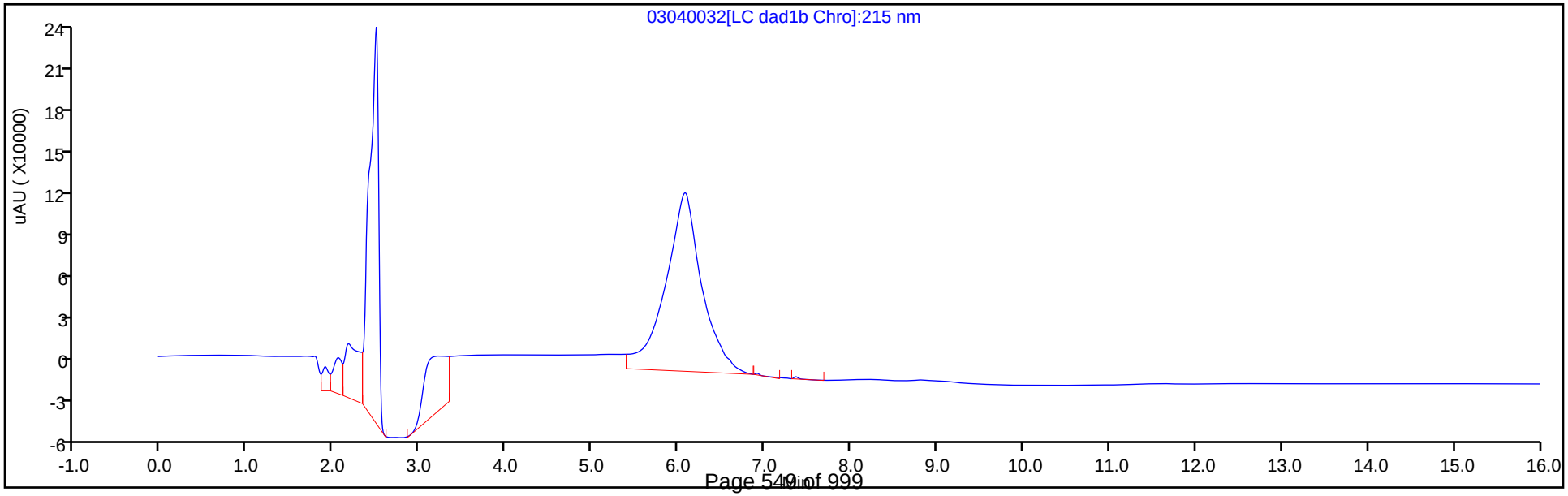
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L1			Worklist Smp#:	32
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

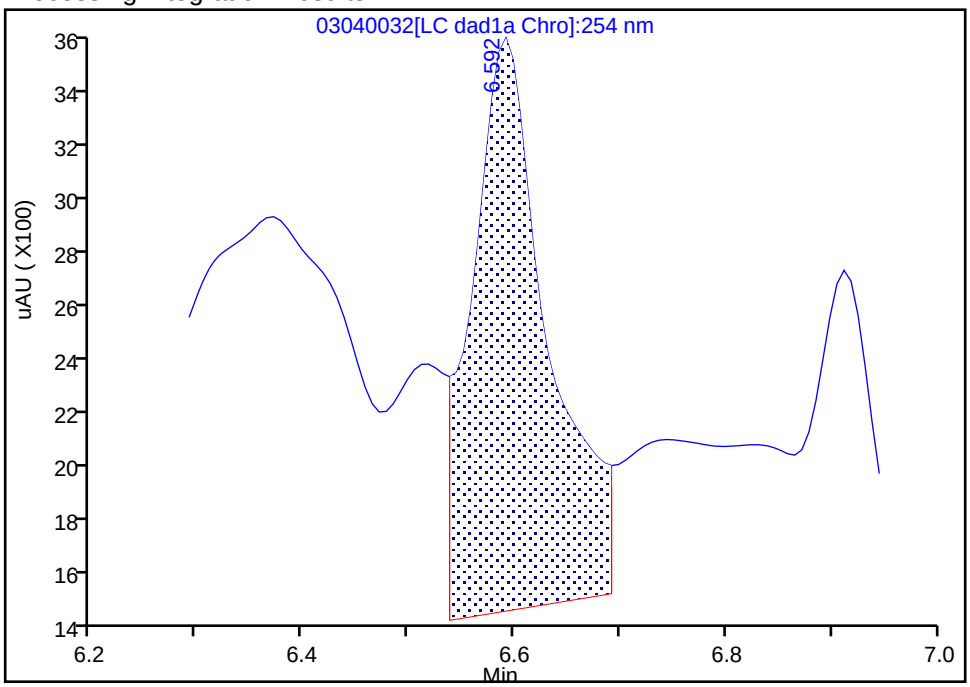
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

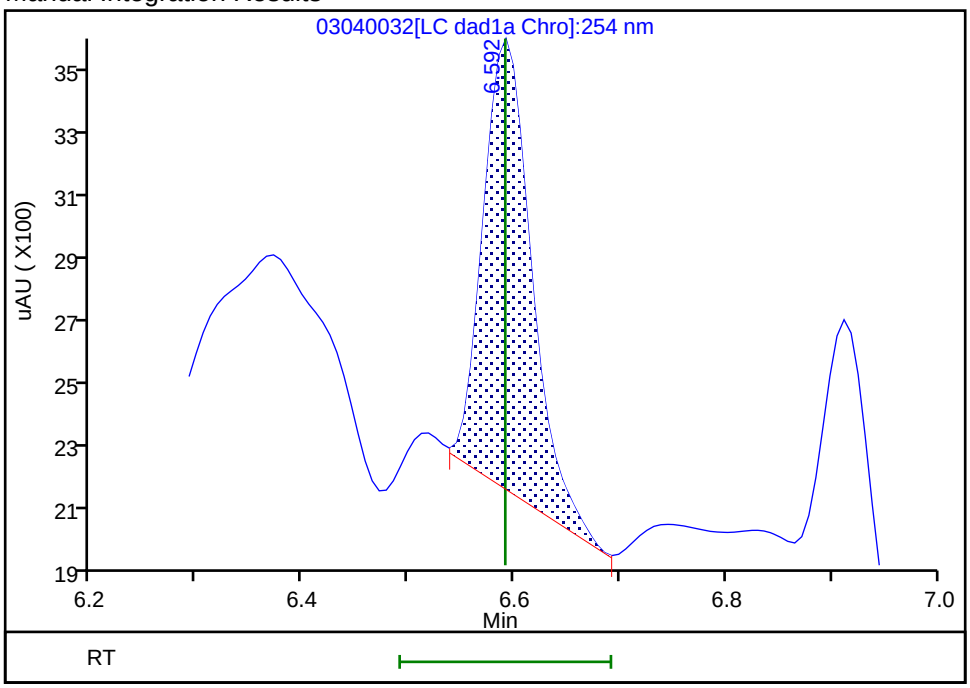
Processing Integration Results

RT: 6.59
Area: 10465
Amount: 0.032149
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 4343
Amount: 0.019958
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

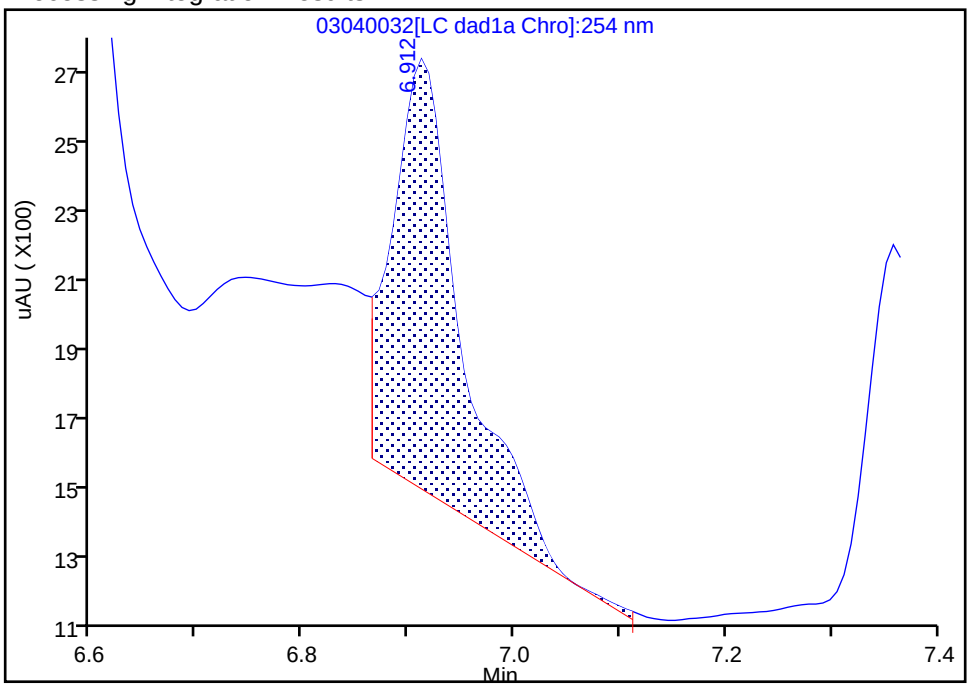
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

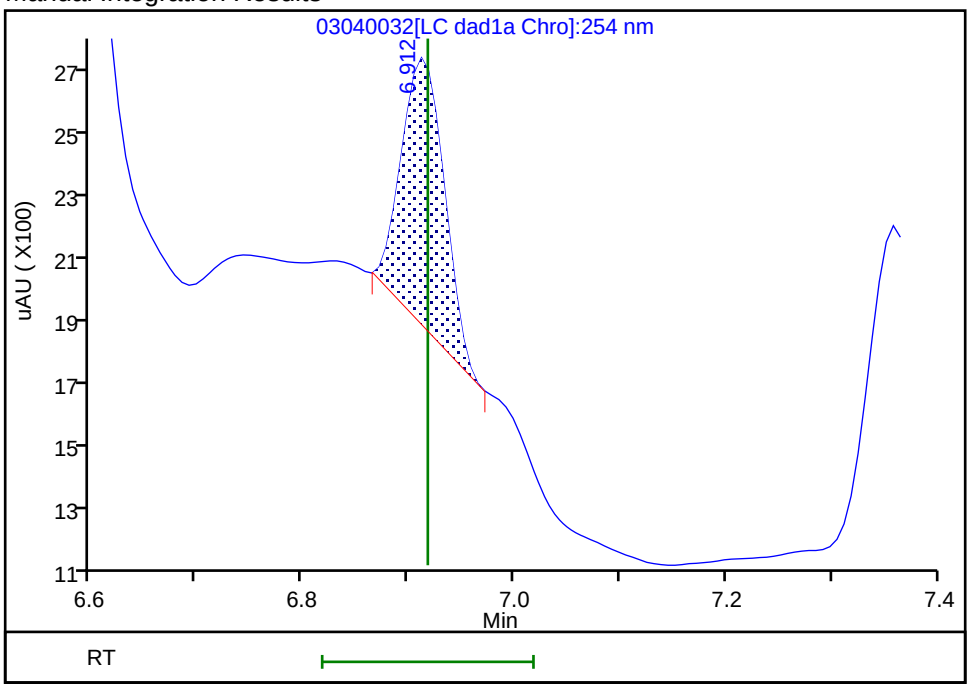
Processing Integration Results

RT: 6.91
Area: 5489
Amount: 0.028357
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 2345
Amount: 0.015334
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX		6.689	6.687	6.689	6.688	6.687	6.687	6.687	6.678		6.539 - 6.839	6.687
RDX		7.755	7.753	7.749	7.754	7.754	7.754	7.754	7.745		7.599 - 7.899	7.752
Picric acid	8.082	8.082	8.080	8.076	8.068	8.054	8.041	8.034	7.978		7.926 - 8.226	8.055
1,3,5-Trinitrobenzene	8.888	8.889	8.887	8.883	8.888	8.887	8.881	8.887	8.878		8.733 - 9.033	8.885
1,3-Dinitrobenzene	9.535	9.535	9.533	9.529	9.534	9.527	9.527	9.534	9.525		9.379 - 9.679	9.531
Nitrobenzene	9.915	9.922	9.920	9.916	9.921	9.914	9.914	9.914	9.911		9.766 - 10.066	9.916
Tetryl	10.221	10.215	10.220	10.216	10.221	10.221	10.214	10.221	10.218		10.066 - 10.366	10.219
Nitroglycerin	10.735	10.735	10.733	10.729	10.734	10.734	10.727	10.727	10.725		10.579 - 10.879	10.731
2,4,6-Trinitrotoluene	11.195	11.189	11.186	11.183	11.194	11.187	11.181	11.187	11.185		11.083 - 11.283	11.187
4-Amino-2,6-dinitrotoluene	11.341	11.342	11.340	11.336	11.347	11.341	11.334	11.334	11.331		11.236 - 11.436	11.338
2-Amino-4,6-dinitrotoluene	11.635	11.629	11.633	11.623	11.634	11.627	11.621	11.621	11.618		11.523 - 11.723	11.627
2,6-Dinitrotoluene	11.795	11.789	11.793	11.783	11.794	11.787	11.781	11.787	11.785		11.683 - 11.883	11.788
2,4-Dinitrotoluene	11.995	11.989	11.986	11.983	11.987	11.987	11.981	11.981	11.978		11.883 - 12.083	11.985
2-Nitrotoluene	12.828	12.822	12.833	12.823	12.827	12.827	12.814	12.821	12.818		12.673 - 12.973	12.824
4-Nitrotoluene	13.268	13.269	13.260	13.256	13.261	13.261	13.254	13.254	13.251		13.106 - 13.406	13.259
3-Nitrotoluene	13.855	13.849	13.853	13.849	13.854	13.854	13.841	13.847	13.845		13.699 - 13.999	13.850
PETN		+++++	14.946	14.936	14.941	14.941	14.927	14.941	14.945		14.786 - 15.086	14.940
1,2-Dinitrobenzene	8.715	8.709	8.713	8.709	8.714	8.714	8.714	8.714	8.705		8.559 - 8.859	8.712

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	91008 92308	61440 91473	86460 91820	90800 92351	Ave		85962.1667				12.3		20.0			
RDX	112944 111897	112680 113215	121400 111841	117010 112730	Ave		116613.070				6.7		20.0			
Picric acid	86560 86468 88192	70960 86698	86100 86851	86470 87876	Ave		85130.5476				6.3		20.0			
1,3,5-Trinitrobenzene	192016 239677 242392	193413 242552	239242 242052	236826 244610	Ave		230308.873				9.3		20.0			
1,3-Dinitrobenzene	254770 321218 326628	250299 322290	322275 320369	318333 323988	Ave		306685.717				10.0		20.0			
Nitrobenzene	173386 209084 210856	165538 209462	208865 209202	207759 209472	Ave		200402.631				8.8		20.0			
Tetryl	132854 188850 191963	139401 190152	182355 189763	184900 193048	Ave		177031.954				13.3		20.0			
Nitroglycerin	54320 73708 72647	54804 73682	66982 72630	71269 73160	Ave		68133.4679				11.7		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,4,6-Trinitrotoluene	143984 216888 217948	171594 215762	214622 218499	217430 219552	Ave		204030.971				13.3		20.0			
4-Amino-2,6-dinitrotoluene	78402 173379 171541	137582 174883	169630 168893	172757 173075	Lin2	-1163.6365	178372.945							0.9980		0.9900
2-Amino-4,6-dinitrotoluene	169163 213685 217128	161195 213177	209223 213799	209592 218387	Ave		202816.698				10.7		20.0			
2,6-Dinitrotoluene	120159 159558 155029	119004 160244	157012 158940	158576 156549	Ave		149452.337				11.4		20.0			
2,4-Dinitrotoluene	250359 318972 321972	249960 319980	313566 317703	316753 322992	Ave		303584.095				10.0		20.0			
2-Nitrotoluene	129200 138416 134514	122720 134575	151060 133944	137330 133699	Ave		135050.876				5.6		20.0			
4-Nitrotoluene	86228 119058 116822	100160 116285	128064 116245	117874 116311	Ave		113005.083				10.9		20.0			
3-Nitrotoluene	112128 149894 149503	125035 150095	155005 148550	148232 148816	Ave		143028.635				10.0		20.0			
PETN	 80472 82059	+++++ 82077	74814 81281	78947 82446	Ave		78604.5748				6.9		20.0			
1,2-Dinitrobenzene	122480 142220 143478	119840 142918	144780 142683	141270 144242	Ave		138212.217				7.1		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	36589	1536 64274	4323 92351	9080 230770	22752	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	45286	2817 78289	6070 112730	11701 279743	28236	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1082 34679	1774 60796	4305 87876	8647 220480	21617	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2405 97215	4845 169775	11986 245099	23730 607193	60039	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
1,3-Dinitrobenzene	Ave	3191 129174	6270 224707	16146 324636	31897 818202	80465	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitrobenzene	Ave	2176 84120	4155 147027	10485 210310	20859 529249	52480	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
Tetryl	Ave	1664 76213	3492 133100	9136 193434	18527 480867	47307	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	6790 294728	13701 508407	33491 731600	71269 1816166	184270	0.125 4.00	0.250 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	1807 86650	4307 153561	10774 220430	21830 547050	54439	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Lin2	981 70023	3443 118343	8490 173248	17293 429281	43388	0.0125 0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	2123 85612	4046 150258	10503 219261	21043 544991	53635	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Ave	1508 64354	2987 111703	7882 157175	15921 389124	40049	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,4-Dinitrotoluene	Ave	3142 128504	6274 223282	15741 324284	31802 808149	80062	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2-Nitrotoluene	Ave	1615 53830	3068 93761	7553 133699	13733 336284	34604	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Nitrotoluene	Ave	1080 46607	2509 81534	6416 116544	11811 292638	29824	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
3-Nitrotoluene	Ave	1403 60098	3129 104089	7758 148965	14838 374131	37511	0.0125 0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
PETN	Ave	 328307	+++++ 568970	37407 824461	78947 2051483	201180	 4.00	+++++ 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	1531 57167	2996 99878	7239 144242	14127 358694	35555	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180007.D				
Lims ID:	IC MAIN L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	18-Mar-2020 11:35:53	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L9				
Misc. Info.:	280-0090150-007				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:39	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 19-Mar-2020 08:41:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.678	6.689	-0.011	230770	2.50	2.68	M
7 RDX	1	7.745	7.749	-0.004	279743	2.50	2.40	
8 2,4,6-Trinitrophenol	1	7.978	8.076	-0.098	220480	2.50	2.59	
$ 9 1,2-Dinitrobenzene	1	8.705	8.709	-0.004	358694	2.50	2.60	
10 1,3,5-Trinitrobenzene	1	8.878	8.883	-0.005	607193	2.51	2.64	
11 1,3-Dinitrobenzene	1	9.525	9.529	-0.004	818202	2.51	2.67	M
12 Nitrobenzene	1	9.911	9.916	-0.005	529249	2.51	2.64	
14 Tetryl	1	10.218	10.216	0.002	480867	2.51	2.72	
15 Nitroglycerin	2	10.725	10.729	-0.004	1816166	25.0	26.7	
16 2,4,6-Trinitrotoluene	1	11.185	11.183	0.002	547050	2.51	2.68	
17 4-Amino-2,6-dinitrotoluene	1	11.331	11.336	-0.005	429281	2.50	2.41	
18 2-Amino-4,6-dinitrotoluene	1	11.618	11.623	-0.005	544991	2.51	2.69	
19 2,6-Dinitrotoluene	1	11.785	11.783	0.002	389124	2.51	2.60	
20 2,4-Dinitrotoluene	1	11.978	11.983	-0.005	808149	2.51	2.66	
21 o-Nitrotoluene	1	12.818	12.823	-0.005	336284	2.50	2.49	
22 p-Nitrotoluene	1	13.251	13.256	-0.005	292638	2.51	2.59	
23 m-Nitrotoluene	1	13.845	13.849	-0.004	374131	2.50	2.62	
24 PETN	2	14.945	14.936	0.009	2051483	25.0	26.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

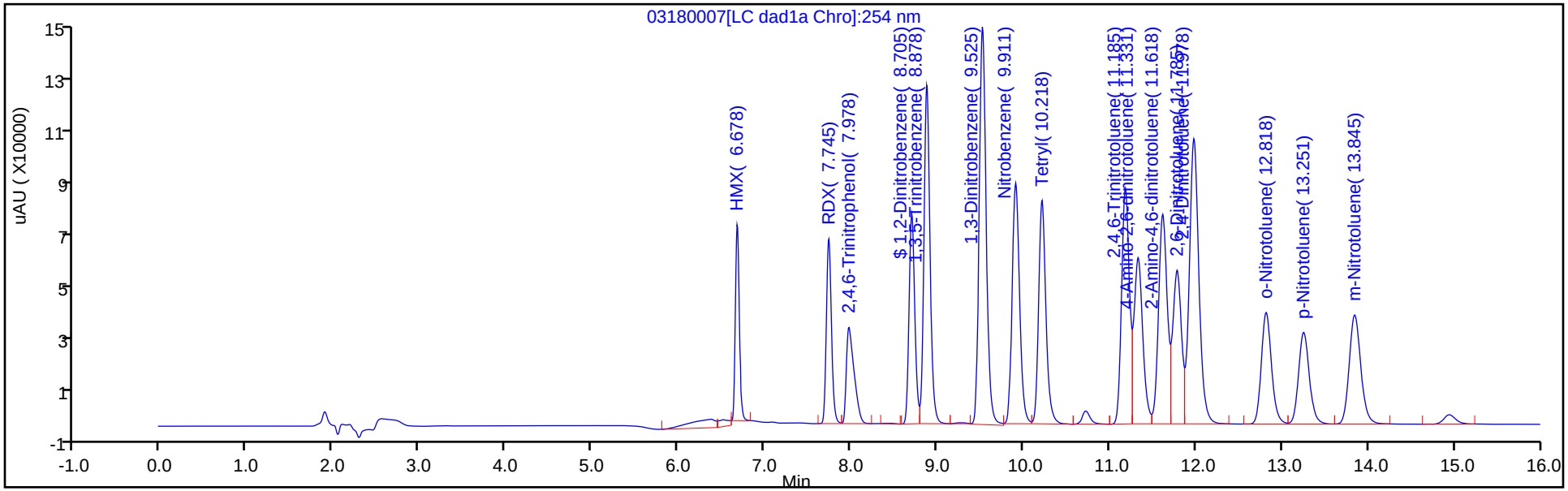
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 26-Mar-2020 15:45:39 Chrom Revision: 2.3 11-Mar-2020 18:53:20

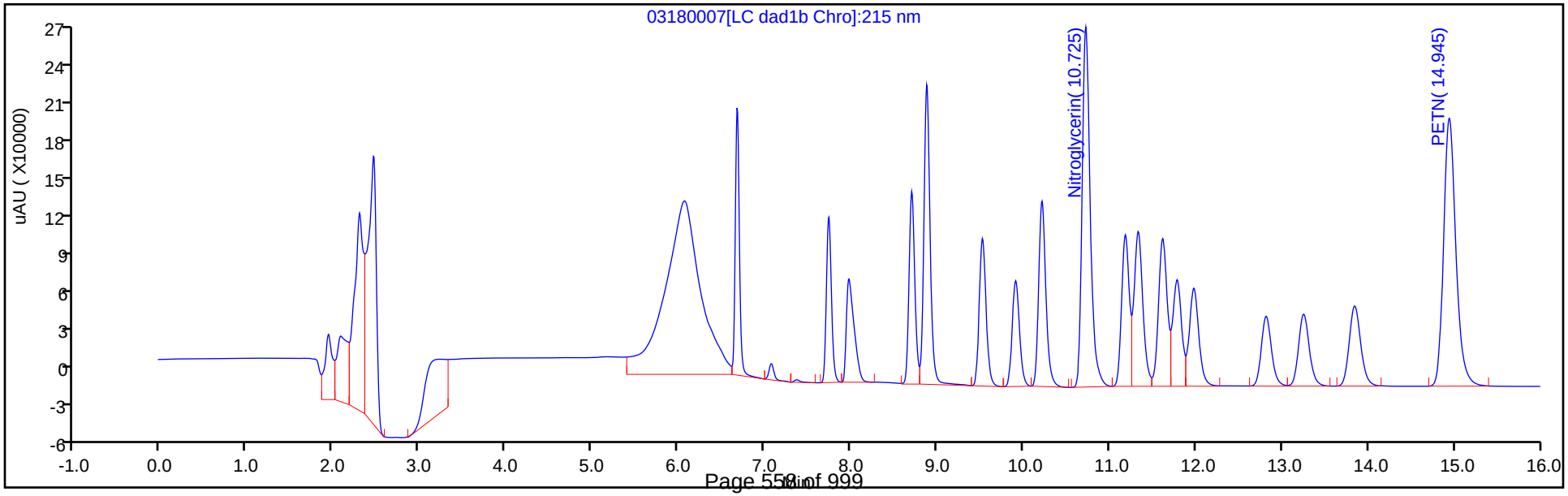
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L9			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

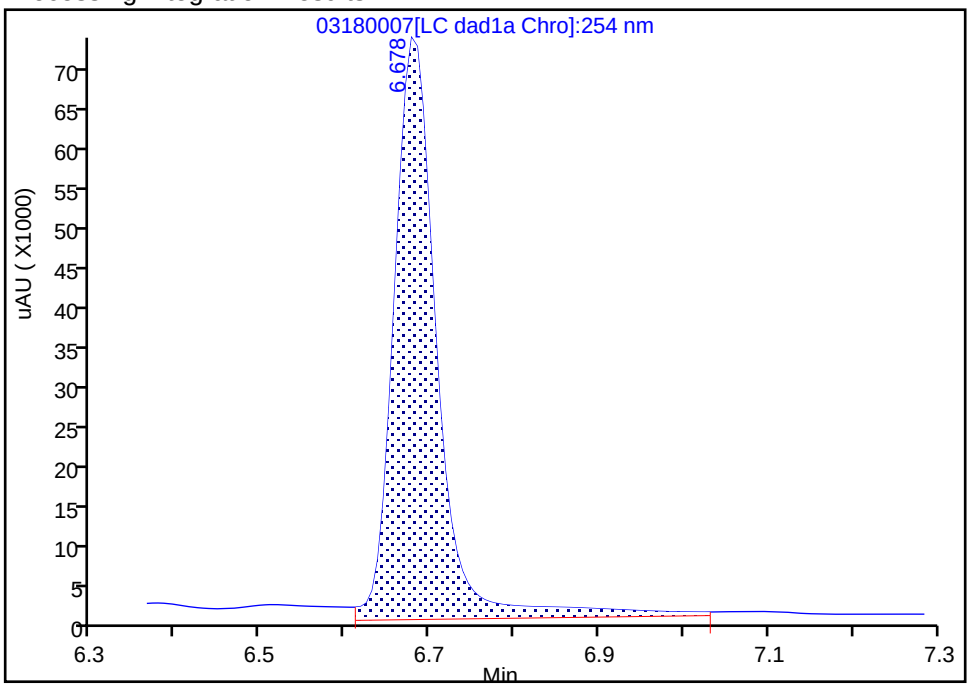
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

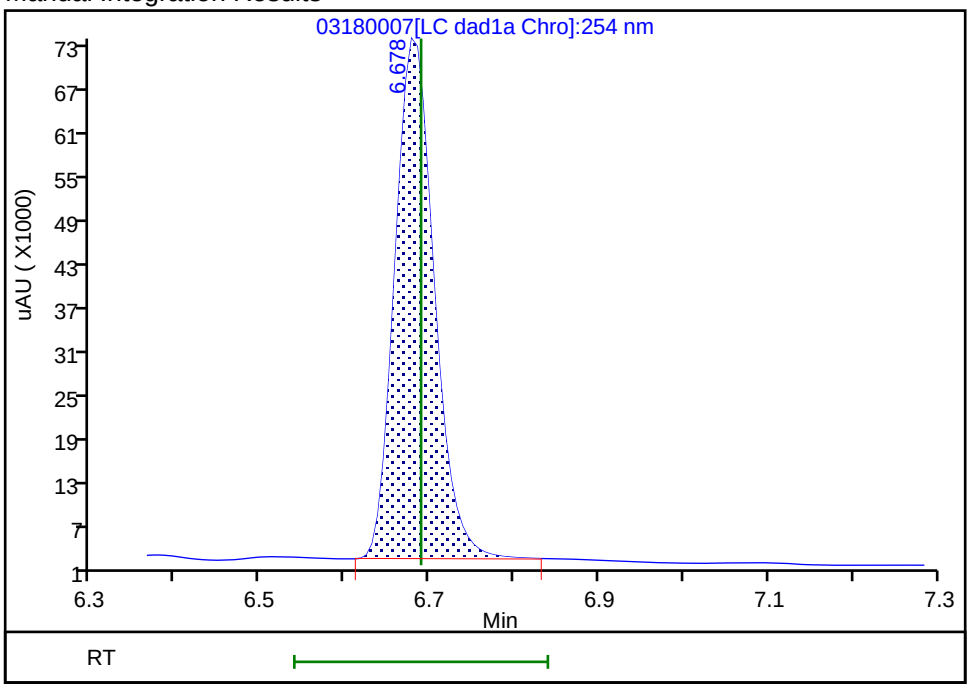
Processing Integration Results

RT: 6.68
Area: 261160
Amount: 2.488946
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 230770
Amount: 2.684553
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:25

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

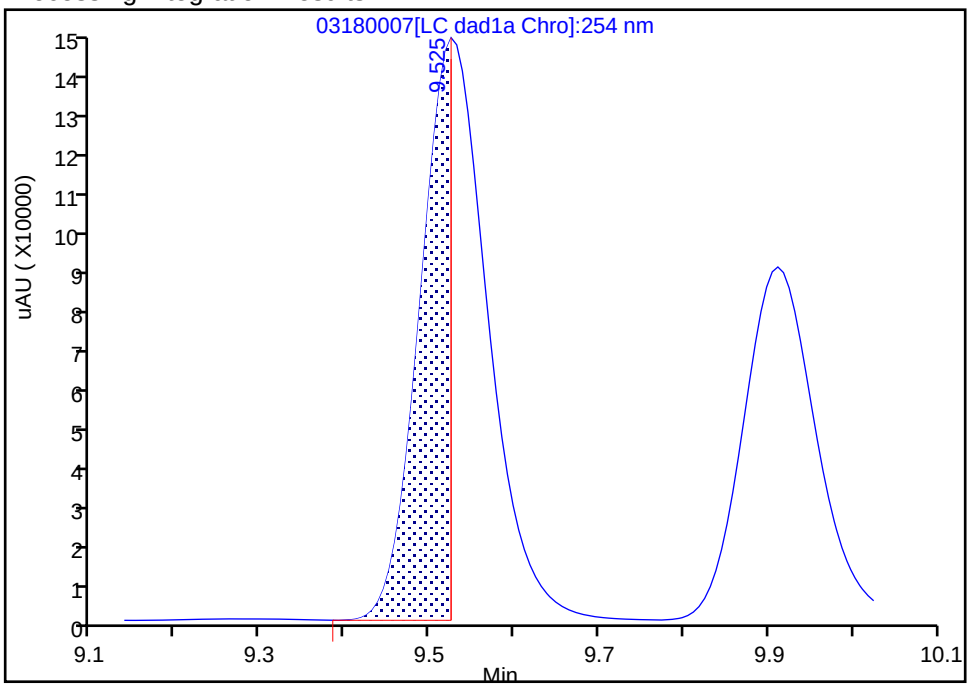
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

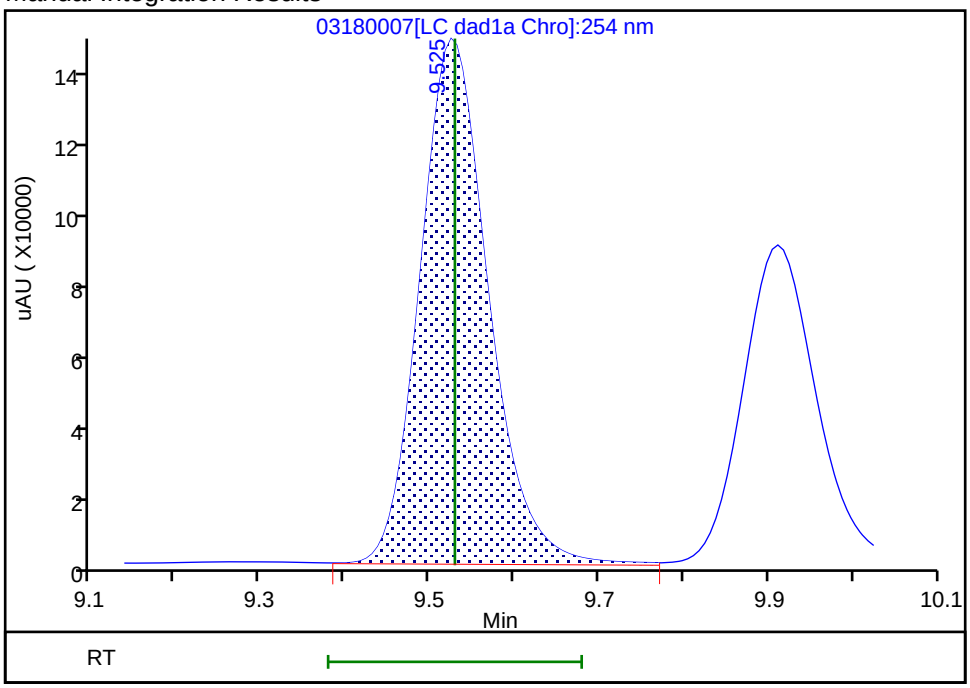
Processing Integration Results

RT: 9.52
Area: 362918
Amount: 1.345398
Amount Units: ug/mL



Manual Integration Results

RT: 9.52
Area: 818202
Amount: 2.667884
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:39
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180008.D				
Lims ID:	IC MAIN L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	18-Mar-2020 11:58:50	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L8				
Misc. Info.:	280-0090150-008				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:40	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:12

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	92351	1.00	1.07	M
7 RDX	1	7.754	7.749	0.005	112730	1.00	0.9667	
8 2,4,6-Trinitrophenol	1	8.034	8.076	-0.042	87876	1.00	1.03	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	144242	1.00	1.04	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	245099	1.00	1.06	
11 1,3-Dinitrobenzene	1	9.534	9.529	0.005	324636	1.00	1.06	
12 Nitrobenzene	1	9.914	9.916	-0.002	210310	1.00	1.05	
14 Tetryl	1	10.221	10.216	0.005	193434	1.00	1.09	
15 Nitroglycerin	2	10.727	10.729	-0.002	731600	10.0	10.7	
16 2,4,6-Trinitrotoluene	1	11.187	11.183	0.004	220430	1.00	1.08	
17 4-Amino-2,6-dinitrotoluene	1	11.334	11.336	-0.002	173248	1.00	0.9778	
18 2-Amino-4,6-dinitrotoluene	1	11.621	11.623	-0.002	219261	1.00	1.08	
19 2,6-Dinitrotoluene	1	11.787	11.783	0.004	157175	1.00	1.05	
20 2,4-Dinitrotoluene	1	11.981	11.983	-0.002	324284	1.00	1.07	
21 o-Nitrotoluene	1	12.821	12.823	-0.002	133699	1.00	0.9900	
22 p-Nitrotoluene	1	13.254	13.256	-0.002	116544	1.00	1.03	
23 m-Nitrotoluene	1	13.847	13.849	-0.002	148965	1.00	1.04	
24 PETN	2	14.941	14.936	0.005	824461	10.0	10.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

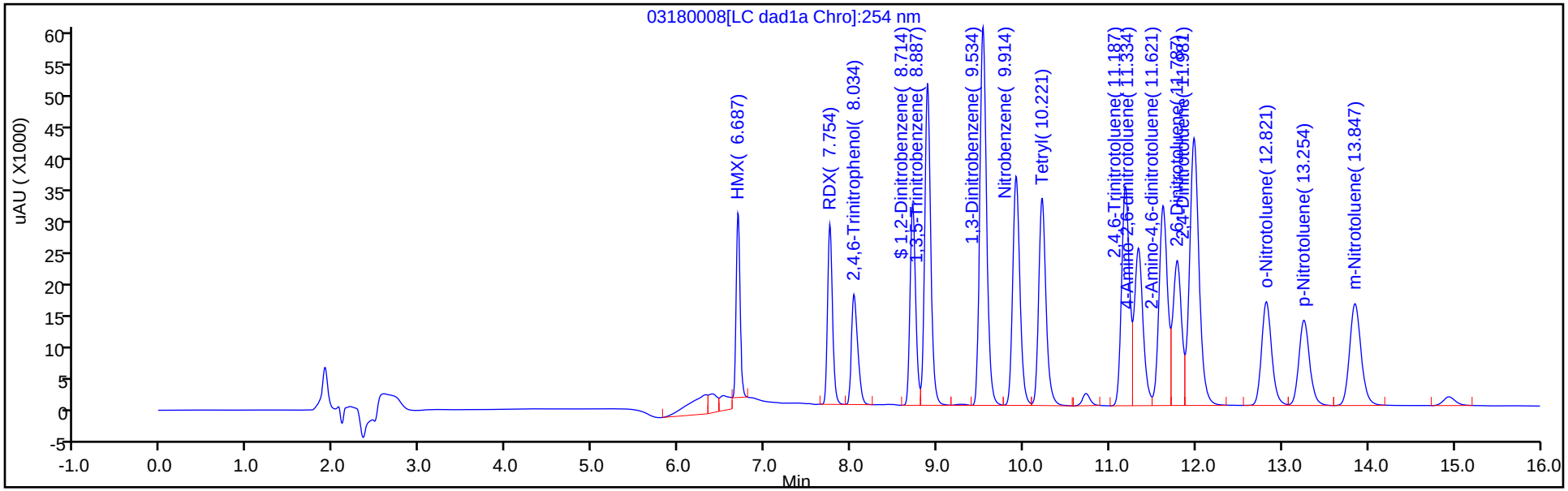
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 26-Mar-2020 15:45:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

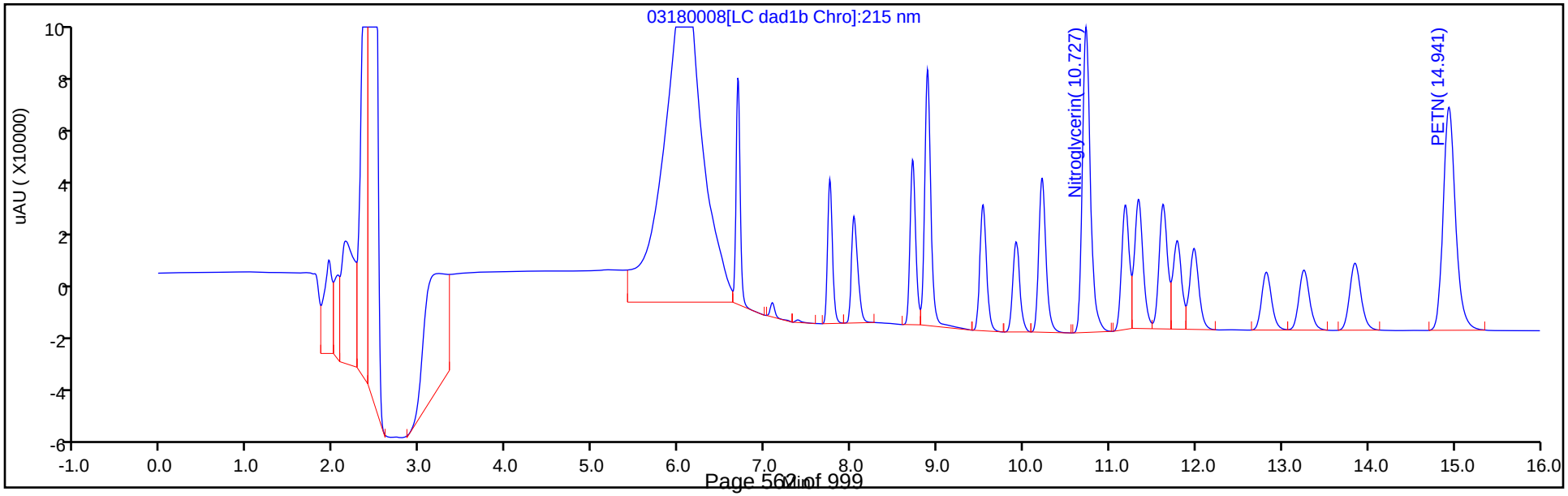
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d				
Injection Date:	18-Mar-2020 11:58:50	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

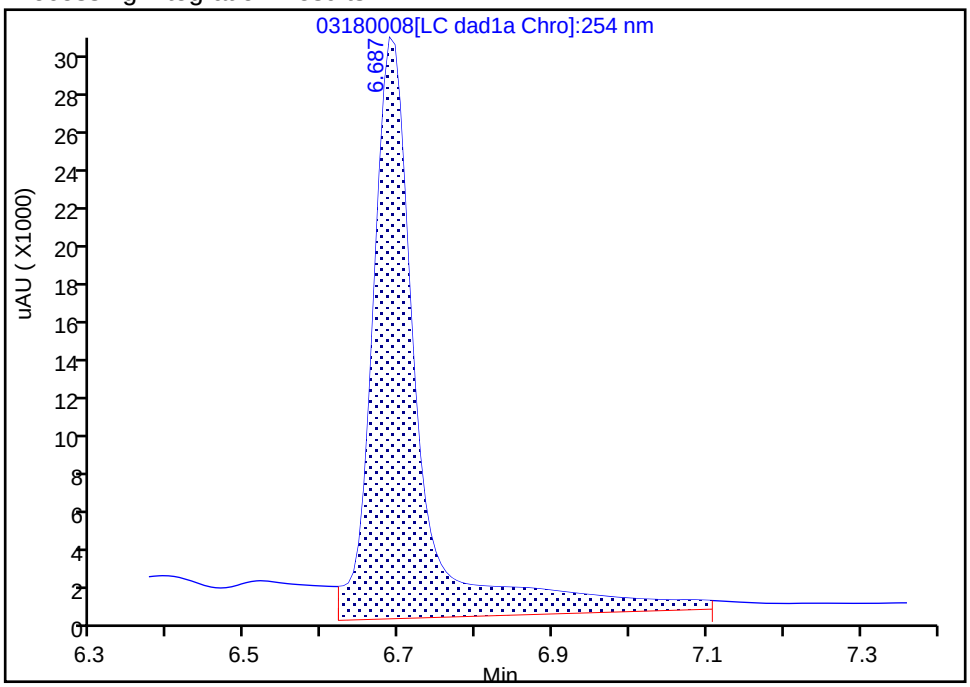
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d				
Injection Date:	18-Mar-2020 11:58:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

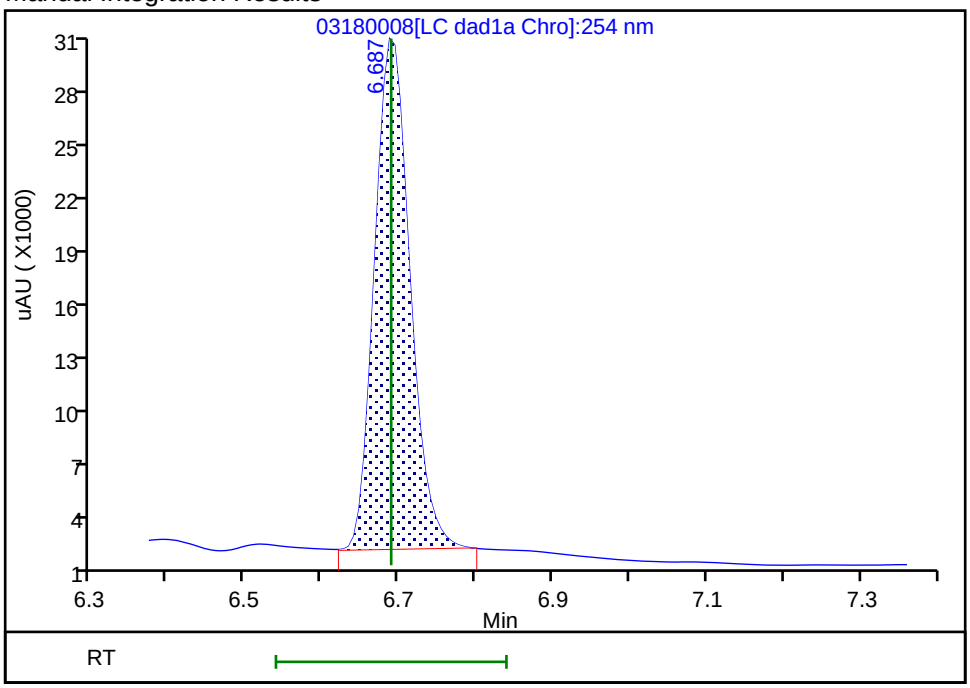
Processing Integration Results

RT: 6.69
Area: 128593
Amount: 1.149770
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 92351
Amount: 1.074321
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180009.D
Lims ID: IC MAIN L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Mar-2020 12:21:47 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L7
Misc. Info.: 280-0090150-009
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	64274	0.7000	0.7477	M
7 RDX	1	7.754	7.749	0.005	78289	0.7000	0.6714	
8 2,4,6-Trinitrophenol	1	8.041	8.076	-0.035	60796	0.7000	0.7142	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	99878	0.7000	0.7226	
10 1,3,5-Trinitrobenzene	1	8.881	8.883	-0.002	169775	0.7014	0.7372	
11 1,3-Dinitrobenzene	1	9.527	9.529	-0.002	224707	0.7014	0.7327	
12 Nitrobenzene	1	9.914	9.916	-0.002	147027	0.7028	0.7337	
14 Tetryl	1	10.214	10.216	-0.002	133100	0.7014	0.7518	
15 Nitroglycerin	2	10.727	10.729	-0.002	508407	7.00	7.46	
16 2,4,6-Trinitrotoluene	1	11.181	11.183	-0.002	153561	0.7028	0.7526	
17 4-Amino-2,6-dinitrotoluene	1	11.334	11.336	-0.002	118343	0.7007	0.6700	
18 2-Amino-4,6-dinitrotoluene	1	11.621	11.623	-0.002	150258	0.7028	0.7409	
19 2,6-Dinitrotoluene	1	11.781	11.783	-0.002	111703	0.7028	0.7474	
20 2,4-Dinitrotoluene	1	11.981	11.983	-0.002	223282	0.7028	0.7355	
21 o-Nitrotoluene	1	12.814	12.823	-0.009	93761	0.7000	0.6943	
22 p-Nitrotoluene	1	13.254	13.256	-0.002	81534	0.7014	0.7215	
23 m-Nitrotoluene	1	13.841	13.849	-0.008	104089	0.7007	0.7277	
24 PETN	2	14.927	14.936	-0.009	568970	7.00	7.24	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

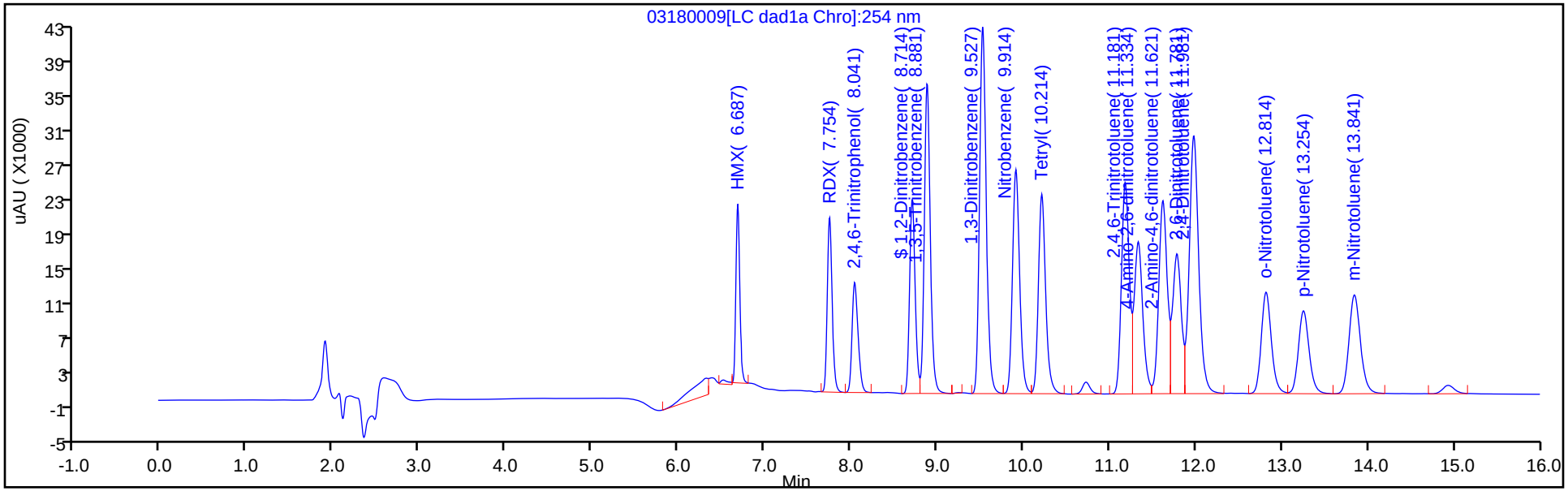
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 26-Mar-2020 15:45:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

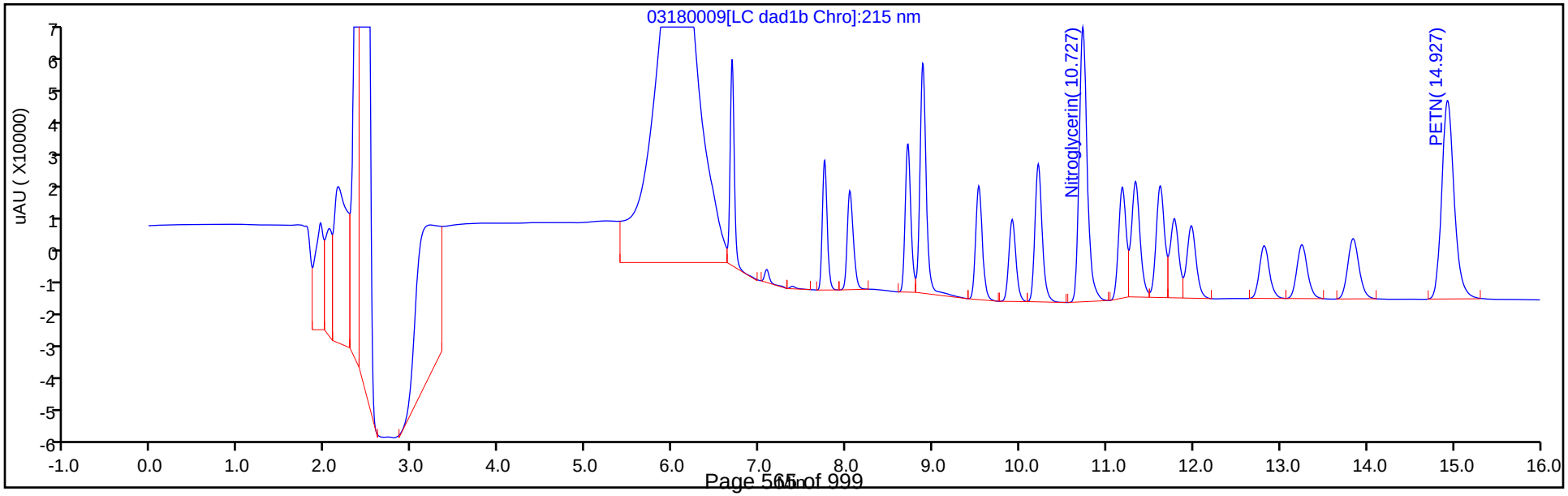
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d				
Injection Date:	18-Mar-2020 12:21:47	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

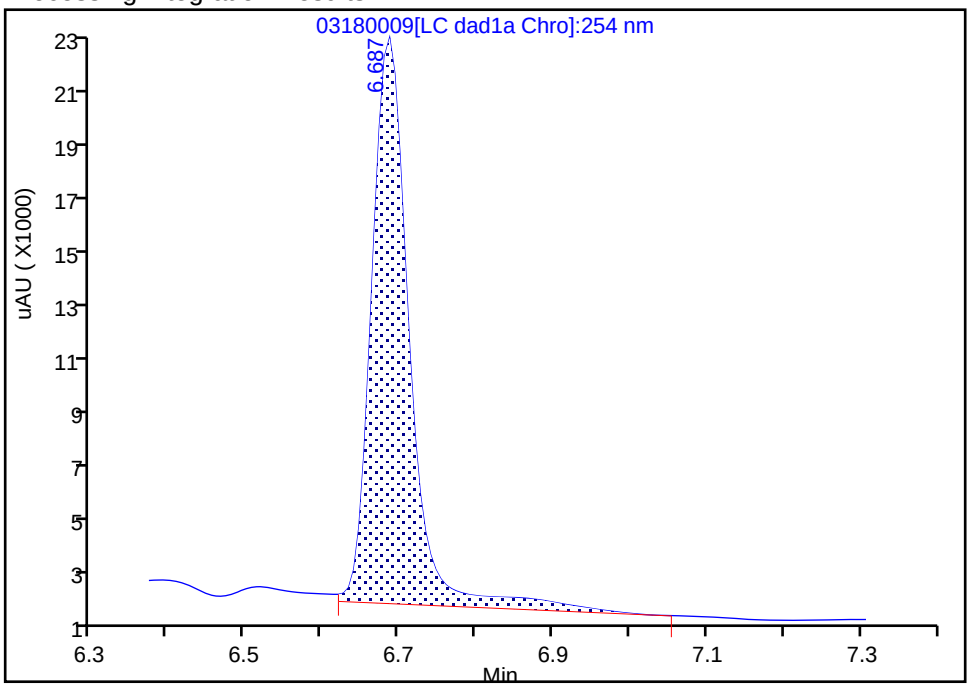
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d				
Injection Date:	18-Mar-2020 12:21:47	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

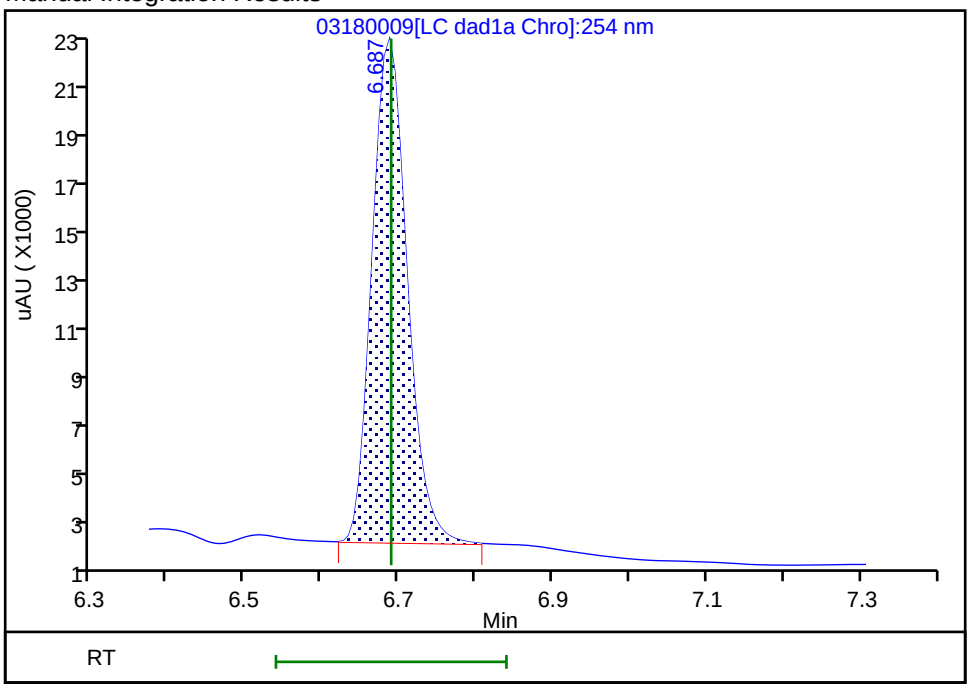
Processing Integration Results

RT: 6.69
Area: 70764
Amount: 0.364265
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 64274
Amount: 0.747701
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:42:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180010.D
Lims ID: IC MAIN L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2020 12:44:45 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L6
Misc. Info.: 280-0090150-010
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	36589	0.4000	0.4256	M
7 RDX	1	7.754	7.749	0.005	45286	0.4000	0.3883	
8 2,4,6-Trinitrophenol	1	8.054	8.076	-0.022	34679	0.4000	0.4074	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	57167	0.4000	0.4136	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	97215	0.4008	0.4221	
11 1,3-Dinitrobenzene	1	9.527	9.529	-0.002	129174	0.4008	0.4212	
12 Nitrobenzene	1	9.914	9.916	-0.002	84120	0.4016	0.4198	
14 Tetryl	1	10.221	10.216	0.005	76213	0.4008	0.4305	
15 Nitroglycerin	2	10.734	10.729	0.005	294728	4.00	4.33	
16 2,4,6-Trinitrotoluene	1	11.187	11.183	0.004	86650	0.4016	0.4247	
17 4-Amino-2,6-dinitrotoluene	1	11.341	11.336	0.005	70023	0.4004	0.3991	
18 2-Amino-4,6-dinitrotoluene	1	11.627	11.623	0.004	85612	0.4016	0.4221	
19 2,6-Dinitrotoluene	1	11.787	11.783	0.004	64354	0.4016	0.4306	
20 2,4-Dinitrotoluene	1	11.987	11.983	0.004	128504	0.4016	0.4233	
21 o-Nitrotoluene	1	12.827	12.823	0.004	53830	0.4000	0.3986	
22 p-Nitrotoluene	1	13.261	13.256	0.005	46607	0.4008	0.4124	
23 m-Nitrotoluene	1	13.854	13.849	0.005	60098	0.4004	0.4202	
24 PETN	2	14.941	14.936	0.005	328307	4.00	4.18	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

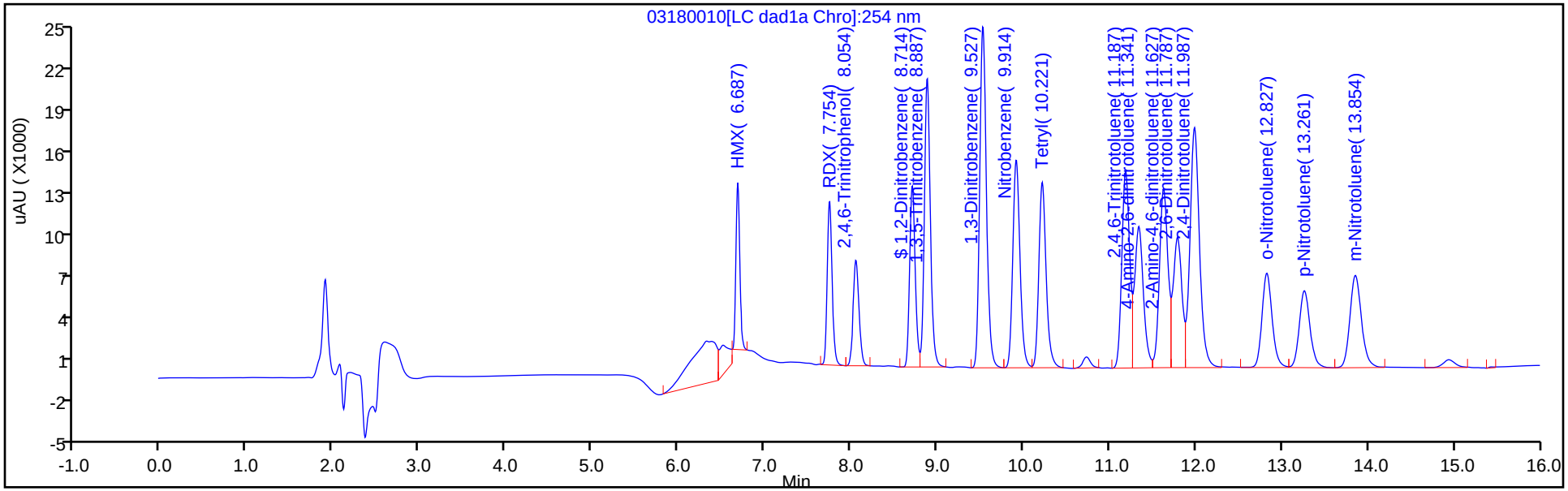
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

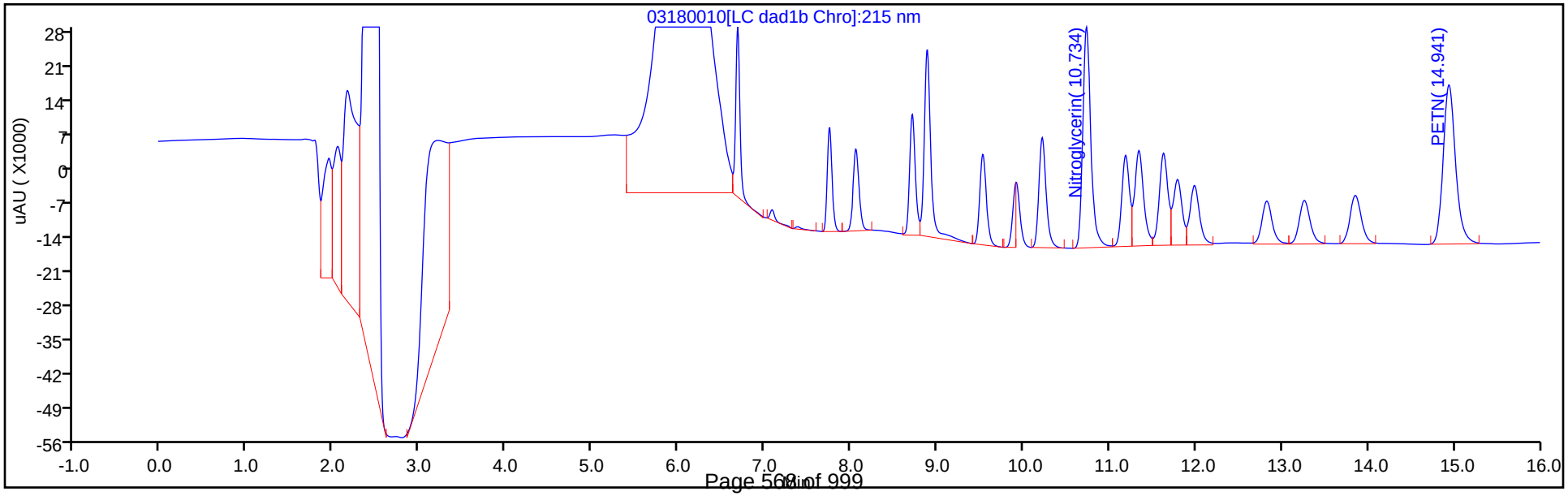
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d				
Injection Date:	18-Mar-2020 12:44:45	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L6			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

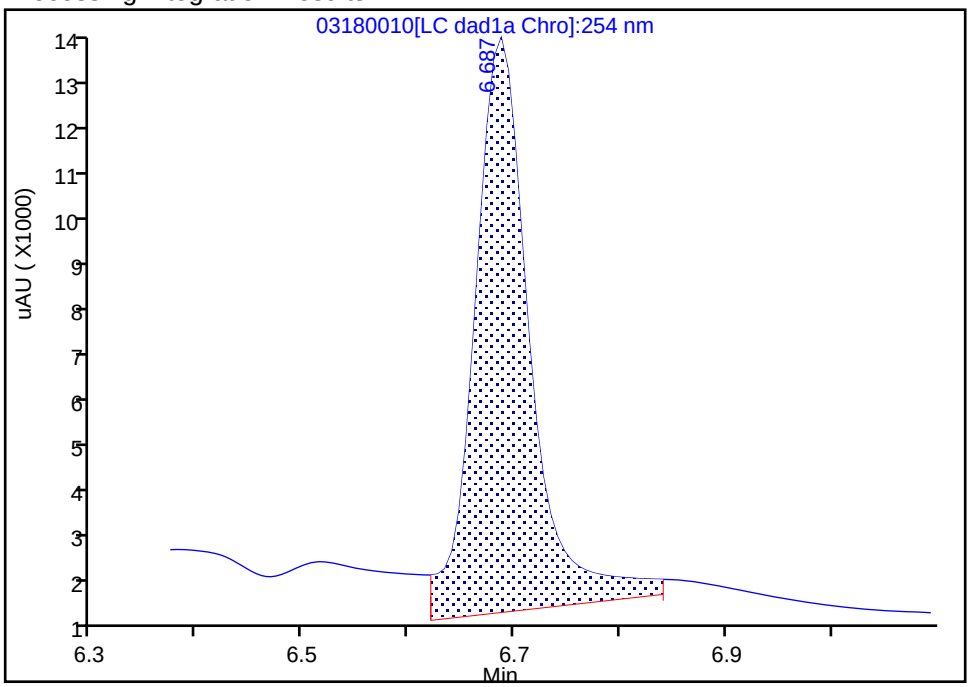
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d				
Injection Date:	18-Mar-2020 12:44:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

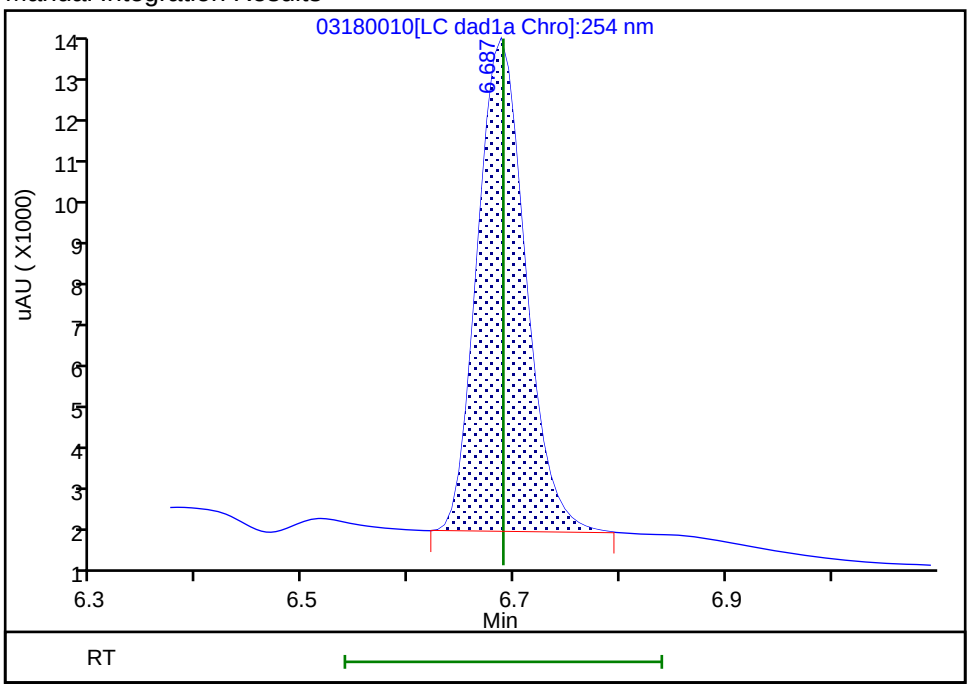
Processing Integration Results

RT: 6.69
Area: 45375
Amount: 0.234818
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 36589
Amount: 0.425641
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:42:54

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180011.D				
Lims ID:	IC MAIN L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	18-Mar-2020 13:07:42	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L5				
Misc. Info.:	280-0090150-011				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:42	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.688	6.689	-0.001	22752	0.2500	0.2647	M
7 RDX	1	7.754	7.749	0.005	28236	0.2500	0.2421	
8 2,4,6-Trinitrophenol	1	8.068	8.076	-0.008	21617	0.2500	0.2539	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	35555	0.2500	0.2572	
10 1,3,5-Trinitrobenzene	1	8.888	8.883	0.005	60039	0.2505	0.2607	
11 1,3-Dinitrobenzene	1	9.534	9.529	0.005	80465	0.2505	0.2624	
12 Nitrobenzene	1	9.921	9.916	0.005	52480	0.2510	0.2619	
14 Tetryl	1	10.221	10.216	0.005	47307	0.2505	0.2672	
15 Nitroglycerin	2	10.734	10.729	0.005	184270	2.50	2.70	
16 2,4,6-Trinitrotoluene	1	11.194	11.183	0.011	54439	0.2510	0.2668	
17 4-Amino-2,6-dinitrotoluene	1	11.347	11.336	0.011	43388	0.2503	0.2498	
18 2-Amino-4,6-dinitrotoluene	1	11.634	11.623	0.011	53635	0.2510	0.2645	
19 2,6-Dinitrotoluene	1	11.794	11.783	0.011	40049	0.2510	0.2680	
20 2,4-Dinitrotoluene	1	11.987	11.983	0.004	80062	0.2510	0.2637	
21 o-Nitrotoluene	1	12.827	12.823	0.004	34604	0.2500	0.2562	
22 p-Nitrotoluene	1	13.261	13.256	0.005	29824	0.2505	0.2639	
23 m-Nitrotoluene	1	13.854	13.849	0.005	37511	0.2503	0.2623	
24 PETN	2	14.941	14.936	0.005	201180	2.50	2.56	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

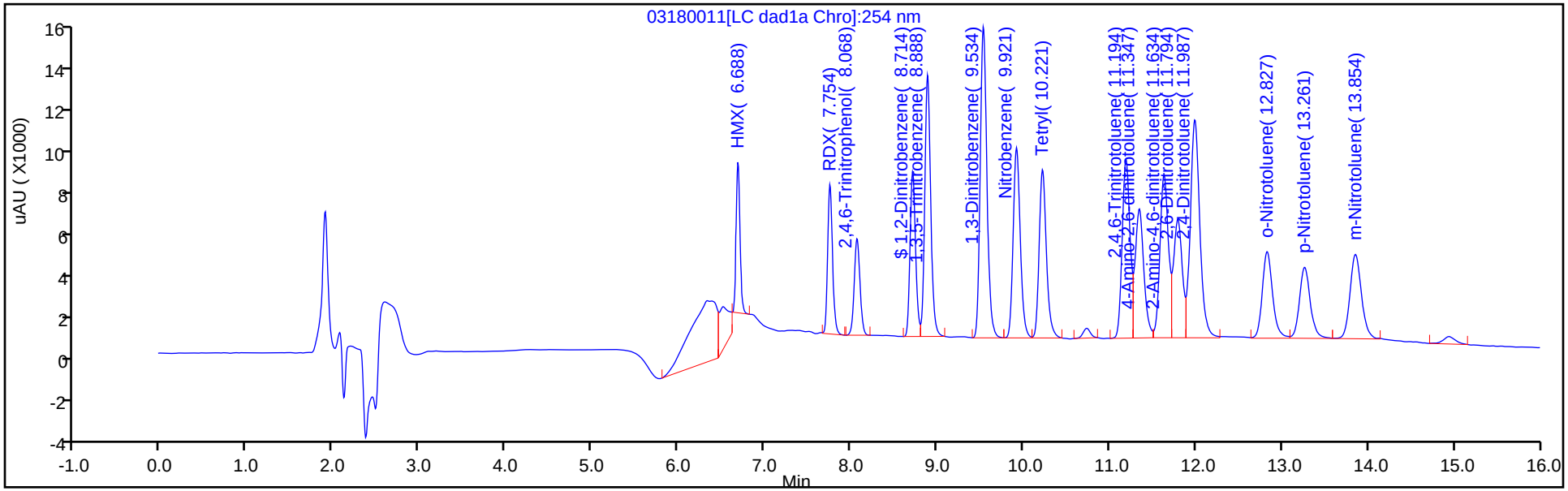
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

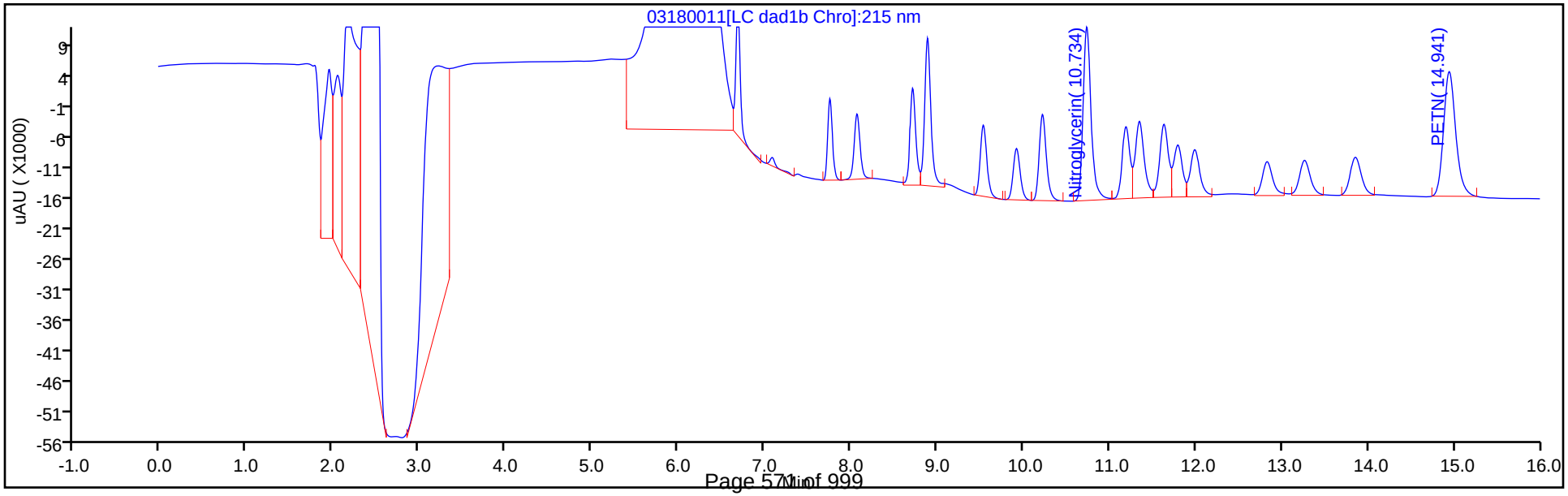
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d				
Injection Date:	18-Mar-2020 13:07:42	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L5			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

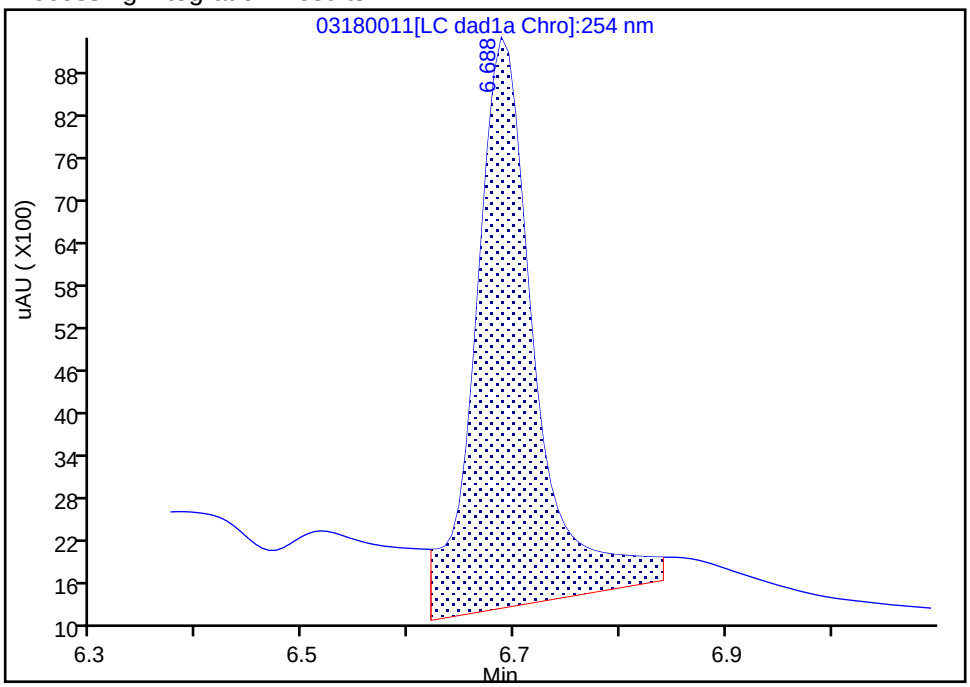
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d				
Injection Date:	18-Mar-2020 13:07:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

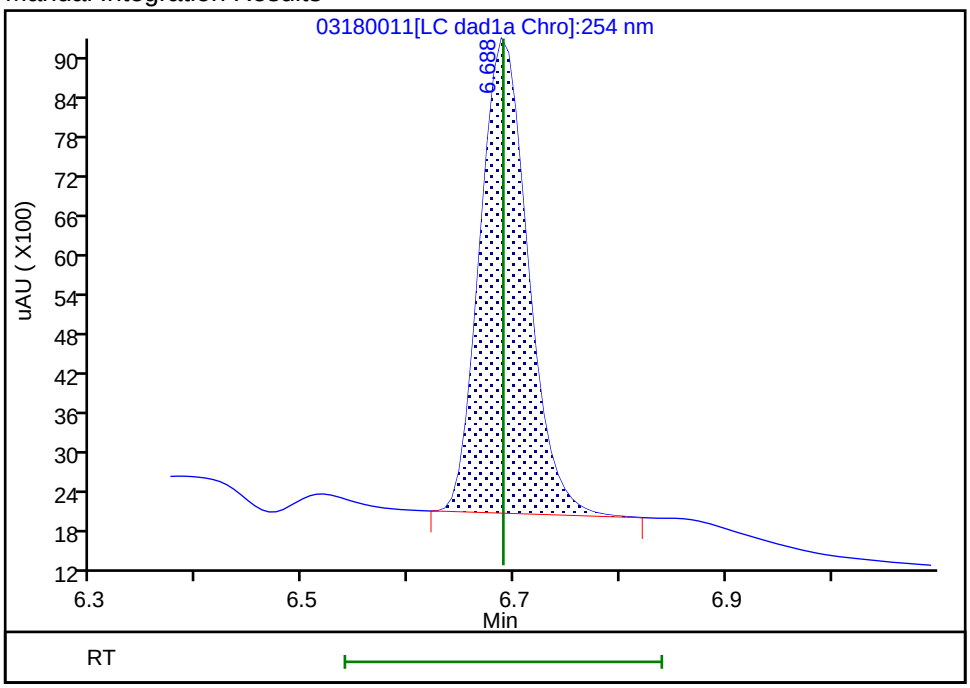
Processing Integration Results

RT: 6.69
Area: 31475
Amount: 0.164968
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 22752
Amount: 0.264675
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:43:23

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180012.D				
Lims ID:	IC MAIN L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	18-Mar-2020 13:30:35	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L4				
Misc. Info.:	280-0090150-012				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:43	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:47

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	3 HMX	1	6.689	6.689	0.000	9080	0.1000	0.1056	M
	7 RDX	1	7.749	7.749	0.000	11701	0.1000	0.1003	
	8 2,4,6-Trinitrophenol	1	8.076	8.076	0.000	8647	0.1000	0.1016	
$	9 1,2-Dinitrobenzene	1	8.709	8.709	0.000	14127	0.1000	0.1022	
	10 1,3,5-Trinitrobenzene	1	8.883	8.883	0.000	23730	0.1002	0.1030	
	11 1,3-Dinitrobenzene	1	9.529	9.529	0.000	31897	0.1002	0.1040	
	12 Nitrobenzene	1	9.916	9.916	0.000	20859	0.1004	0.1041	
	14 Tetryl	1	10.216	10.216	0.000	18527	0.1002	0.1047	
	15 Nitroglycerin	2	10.729	10.729	0.000	71269	1.00	1.05	
	16 2,4,6-Trinitrotoluene	1	11.183	11.183	0.000	21830	0.1004	0.1070	
	17 4-Amino-2,6-dinitrotoluene	1	11.336	11.336	0.000	17293	0.1001	0.1035	
	18 2-Amino-4,6-dinitrotoluene	1	11.623	11.623	0.000	21043	0.1004	0.1038	
	19 2,6-Dinitrotoluene	1	11.783	11.783	0.000	15921	0.1004	0.1065	
	20 2,4-Dinitrotoluene	1	11.983	11.983	0.000	31802	0.1004	0.1048	
	21 o-Nitrotoluene	1	12.823	12.823	0.000	13733	0.1000	0.1017	
	22 p-Nitrotoluene	1	13.256	13.256	0.000	11811	0.1002	0.1045	
	23 m-Nitrotoluene	1	13.849	13.849	0.000	14838	0.1001	0.1037	
	24 PETN	2	14.936	14.936	0.000	78947	1.00	1.00	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

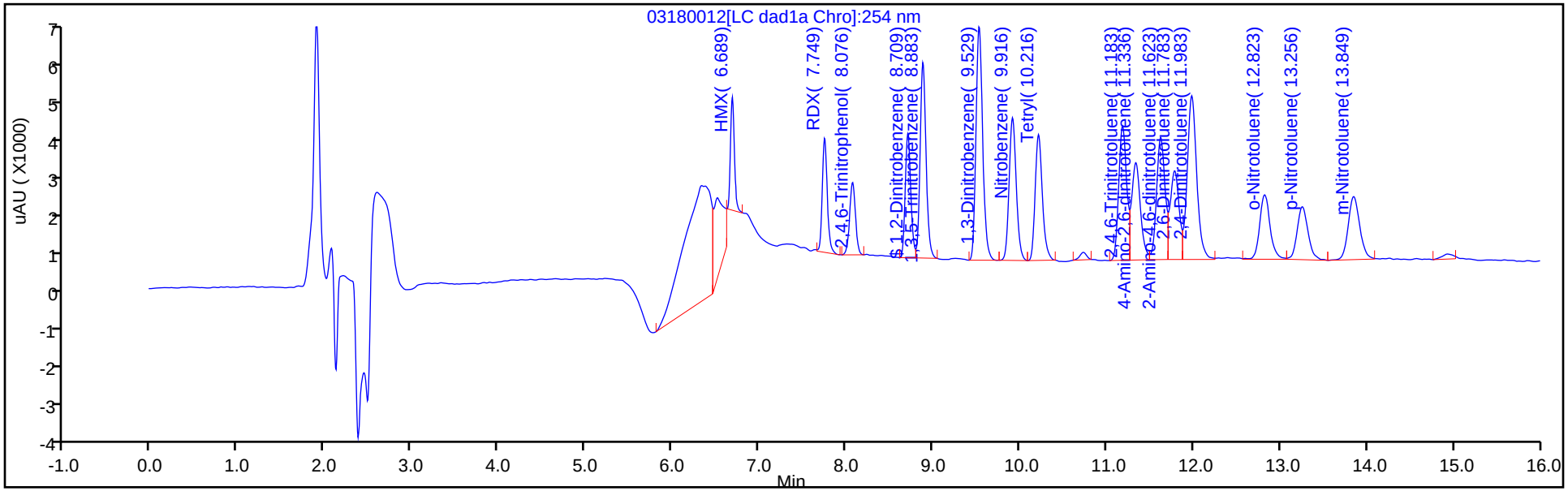
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 26-Mar-2020 15:45:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

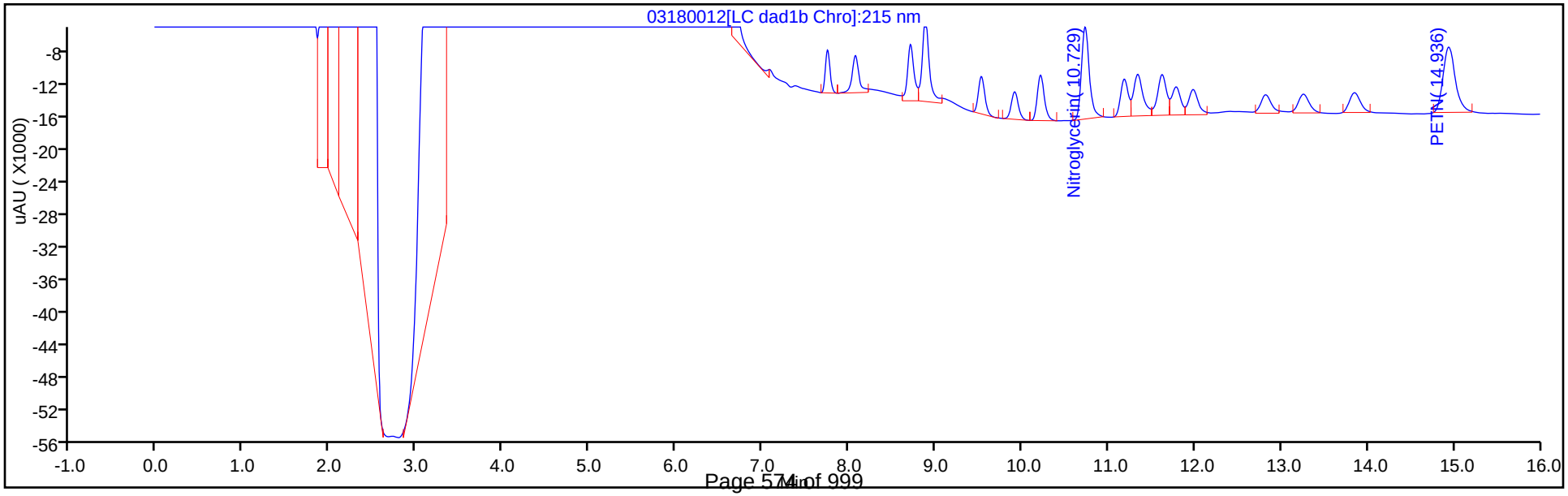
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d				
Injection Date:	18-Mar-2020 13:30:35	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L4			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

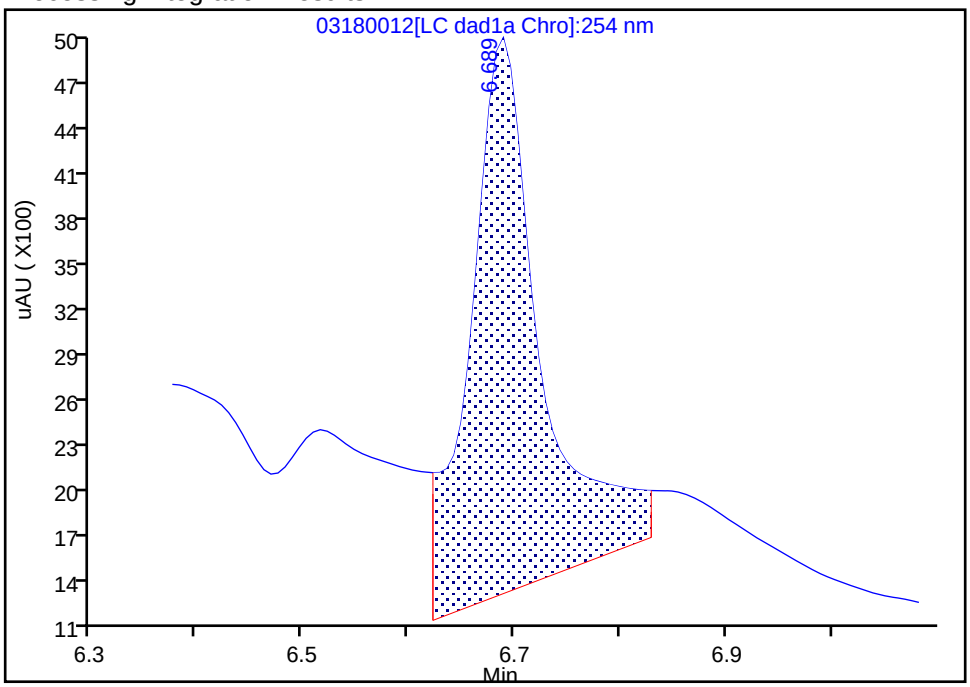
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d				
Injection Date:	18-Mar-2020 13:30:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

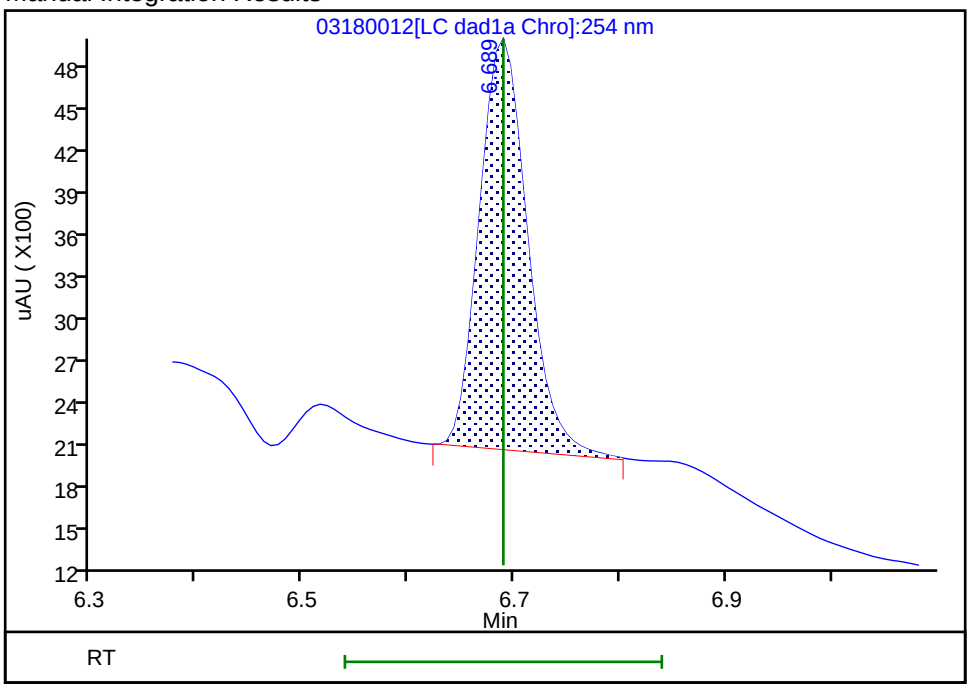
Processing Integration Results

RT: 6.69
Area: 16912
Amount: 0.090478
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 9080
Amount: 0.105628
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:43:42

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180013.D				
Lims ID:	IC MAIN L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	18-Mar-2020 13:53:37	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L3				
Misc. Info.:	280-0090150-013				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:44	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				
First Level Reviewer: beckerc		Date:	19-Mar-2020 08:44:05		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	4323	0.0500	0.0503	M
7 RDX	1	7.753	7.749	0.004	6070	0.0500	0.0521	
8 2,4,6-Trinitrophenol	1	8.080	8.076	0.004	4305	0.0500	0.0506	
$ 9 1,2-Dinitrobenzene	1	8.713	8.709	0.004	7239	0.0500	0.0524	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	11986	0.0501	0.0520	
11 1,3-Dinitrobenzene	1	9.533	9.529	0.004	16146	0.0501	0.0526	
12 Nitrobenzene	1	9.920	9.916	0.004	10485	0.0502	0.0523	
14 Tetryl	1	10.220	10.216	0.004	9136	0.0501	0.0516	
15 Nitroglycerin	2	10.733	10.729	0.004	33491	0.5000	0.4915	
16 2,4,6-Trinitrotoluene	1	11.186	11.183	0.003	10774	0.0502	0.0528	
17 4-Amino-2,6-dinitrotoluene	1	11.340	11.336	0.004	8490	0.0501	0.0541	
18 2-Amino-4,6-dinitrotoluene	1	11.633	11.623	0.010	10503	0.0502	0.0518	
19 2,6-Dinitrotoluene	1	11.793	11.783	0.010	7882	0.0502	0.0527	
20 2,4-Dinitrotoluene	1	11.986	11.983	0.003	15741	0.0502	0.0519	
21 o-Nitrotoluene	1	12.833	12.823	0.010	7553	0.0500	0.0559	
22 p-Nitrotoluene	1	13.260	13.256	0.004	6416	0.0501	0.0568	
23 m-Nitrotoluene	1	13.853	13.849	0.004	7758	0.0501	0.0542	
24 PETN	2	14.946	14.936	0.010	37407	0.5000	0.4759	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

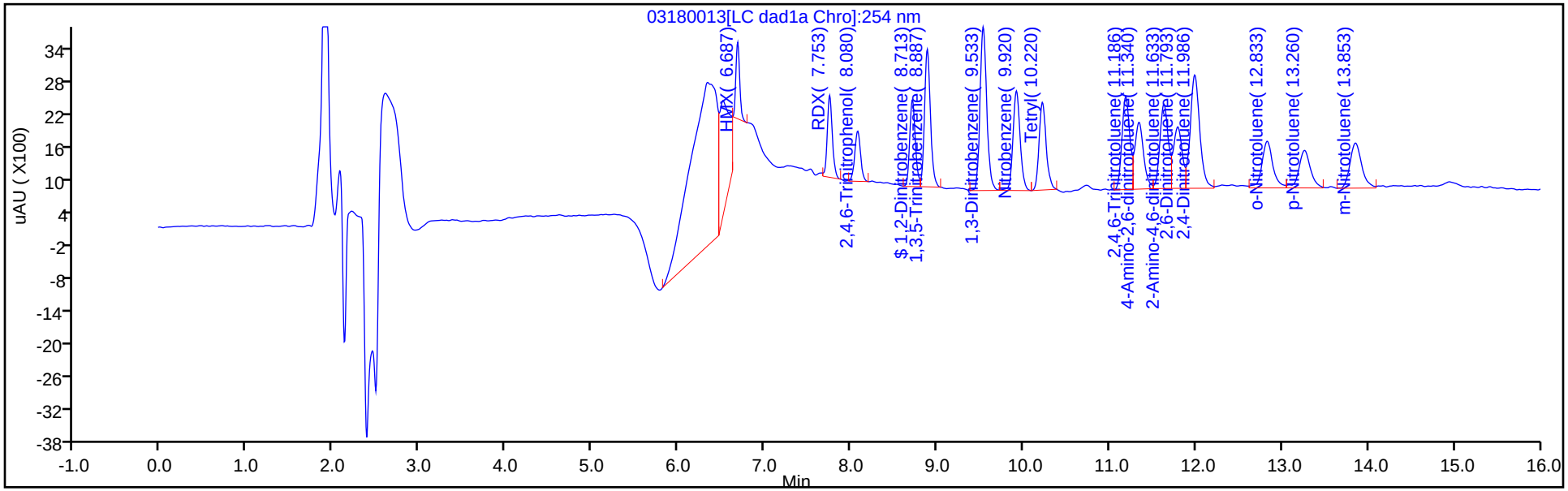
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 26-Mar-2020 15:45:44 Chrom Revision: 2.3 11-Mar-2020 18:53:20

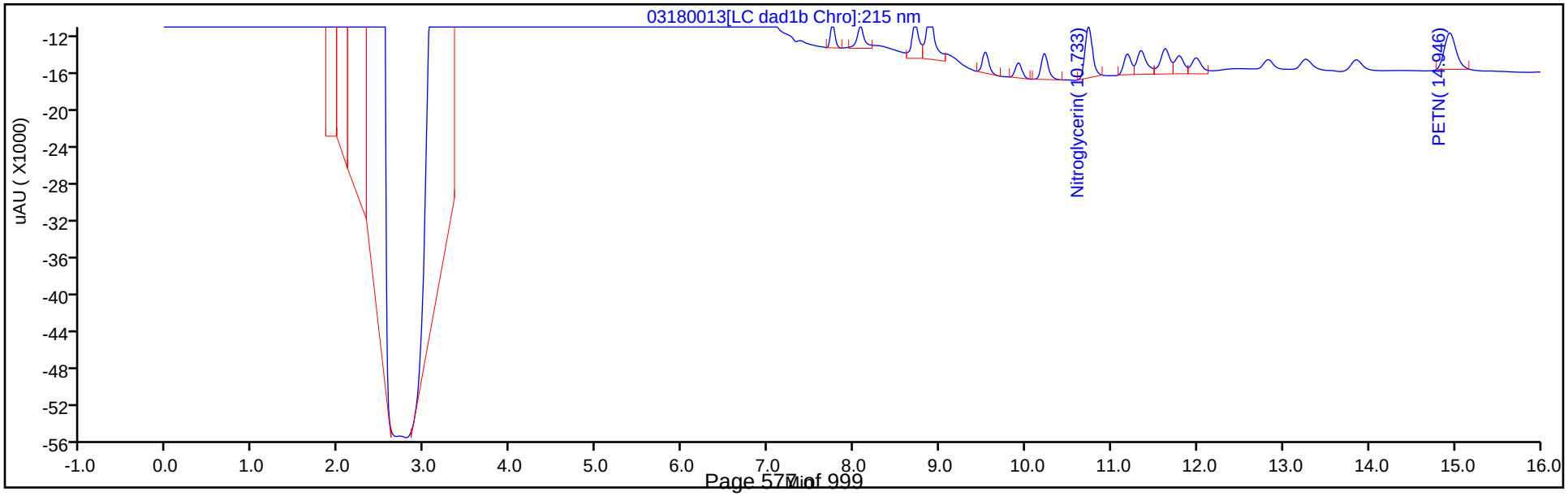
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d				
Injection Date:	18-Mar-2020 13:53:37	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L3			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

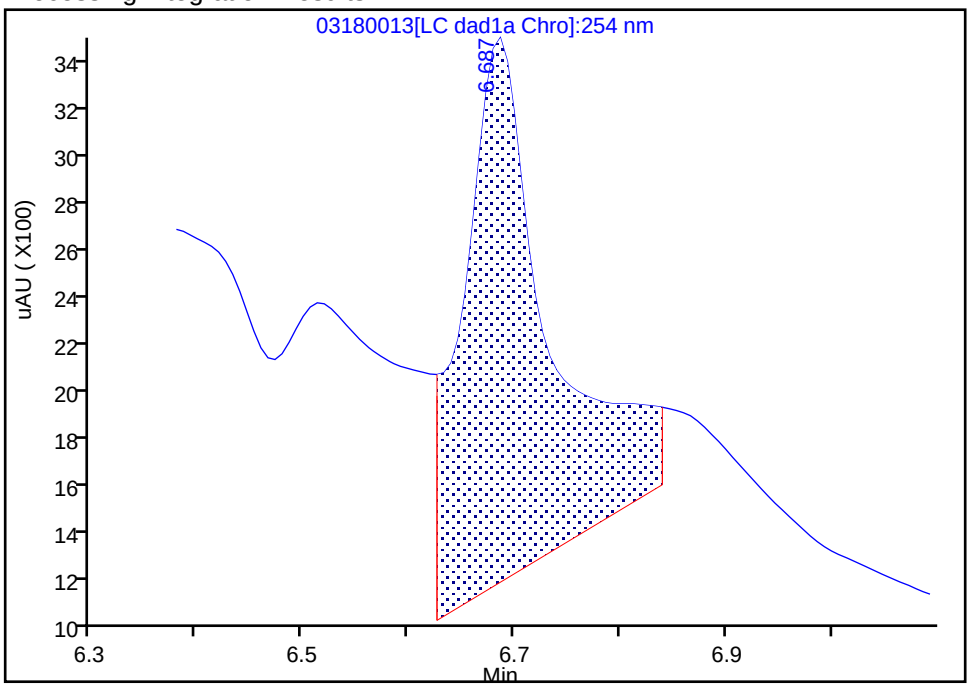
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d				
Injection Date:	18-Mar-2020 13:53:37	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

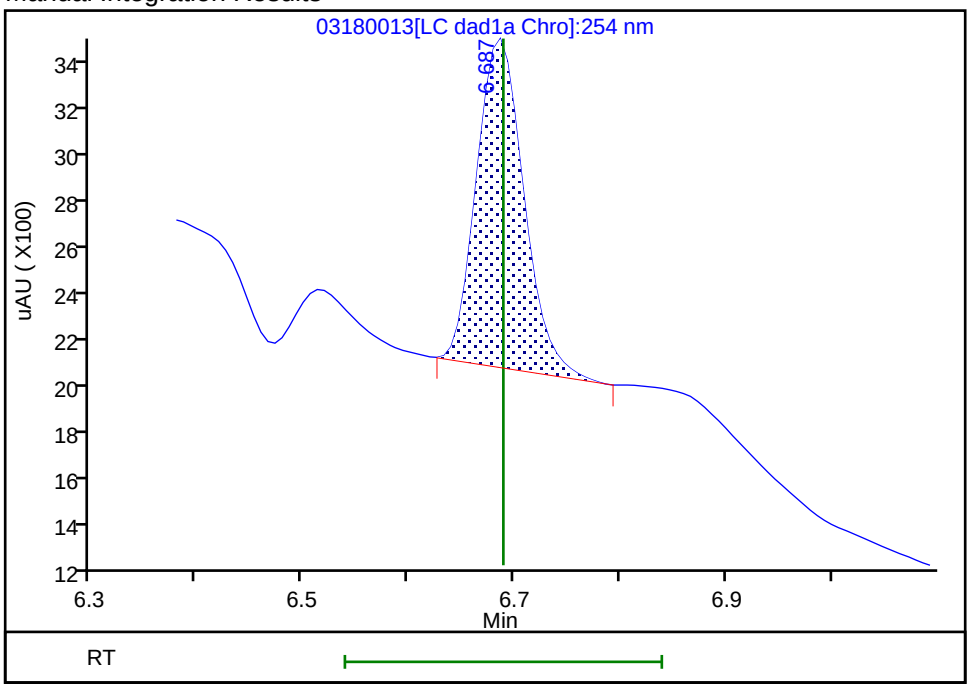
Processing Integration Results

RT: 6.69
Area: 12509
Amount: 0.070190
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 4323
Amount: 0.050290
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180014.D
Lims ID: IC MAIN L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2020 14:16:32 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L2
Misc. Info.: 280-0090150-014
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.689	6.689	0.000	1536	0.0250	0.0179	M
7 RDX	1	7.755	7.749	0.006	2817	0.0250	0.0242	
8 2,4,6-Trinitrophenol	1	8.082	8.076	0.006	1774	0.0250	0.0208	
$ 9 1,2-Dinitrobenzene	1	8.709	8.709	0.000	2996	0.0250	0.0217	
10 1,3,5-Trinitrobenzene	1	8.889	8.883	0.006	4845	0.0251	0.0210	
11 1,3-Dinitrobenzene	1	9.535	9.529	0.006	6270	0.0251	0.0204	
12 Nitrobenzene	1	9.922	9.916	0.006	4155	0.0251	0.0207	
14 Tetryl	1	10.215	10.216	-0.001	3492	0.0251	0.0197	
15 Nitroglycerin	2	10.735	10.729	0.006	13701	0.2500	0.2011	
16 2,4,6-Trinitrotoluene	1	11.189	11.183	0.006	4307	0.0251	0.0211	
17 4-Amino-2,6-dinitrotoluene	1	11.342	11.336	0.006	3443	0.0250	0.0258	
18 2-Amino-4,6-dinitrotoluene	1	11.629	11.623	0.006	4046	0.0251	0.0199	M
19 2,6-Dinitrotoluene	1	11.789	11.783	0.006	2987	0.0251	0.0200	M
20 2,4-Dinitrotoluene	1	11.989	11.983	0.006	6274	0.0251	0.0207	
21 o-Nitrotoluene	1	12.822	12.823	-0.001	3068	0.0250	0.0227	
22 p-Nitrotoluene	1	13.269	13.256	0.013	2509	0.0251	0.0222	
23 m-Nitrotoluene	1	13.849	13.849	0.000	3129	0.0250	0.0219	
24 PETN	2	14.942	14.936	0.006	11624	0.2500	0.1479	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

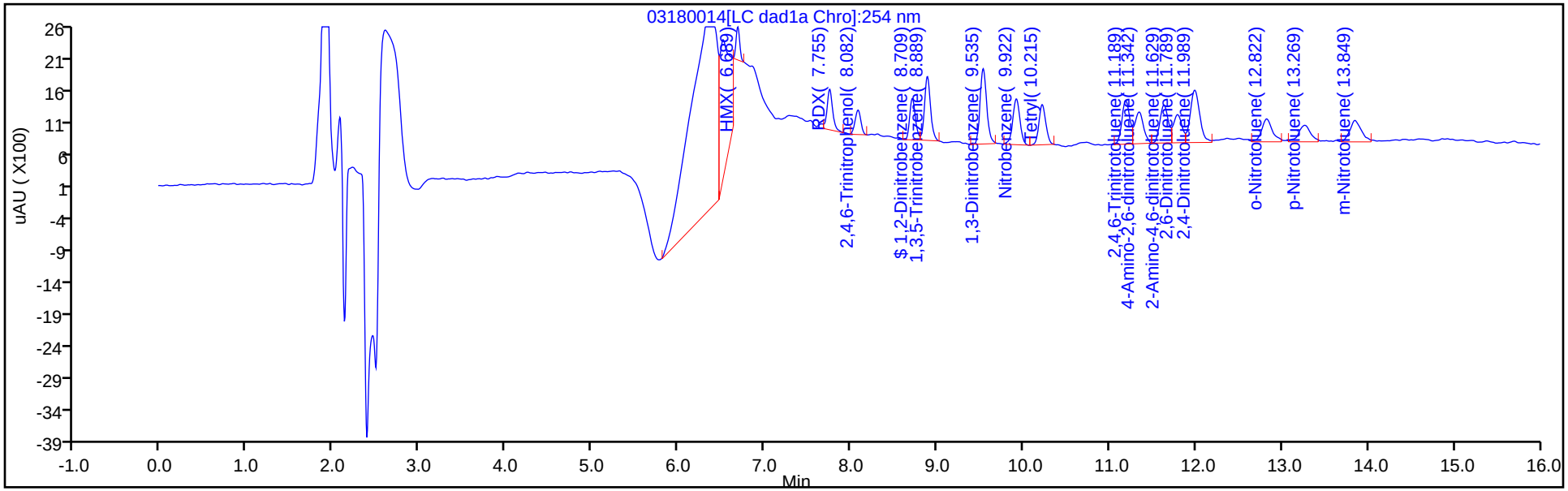
8330IntermStk_00061 Amount Added: 2.50 Units: uL

Report Date: 26-Mar-2020 15:45:45 Chrom Revision: 2.3 11-Mar-2020 18:53:20

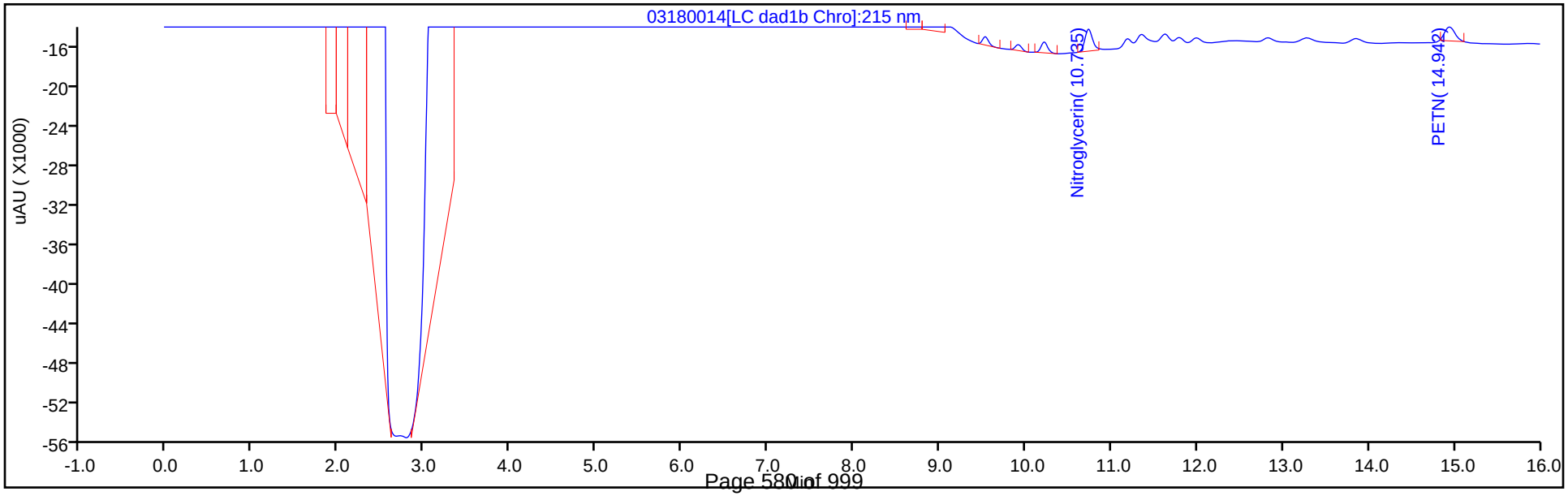
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L2			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

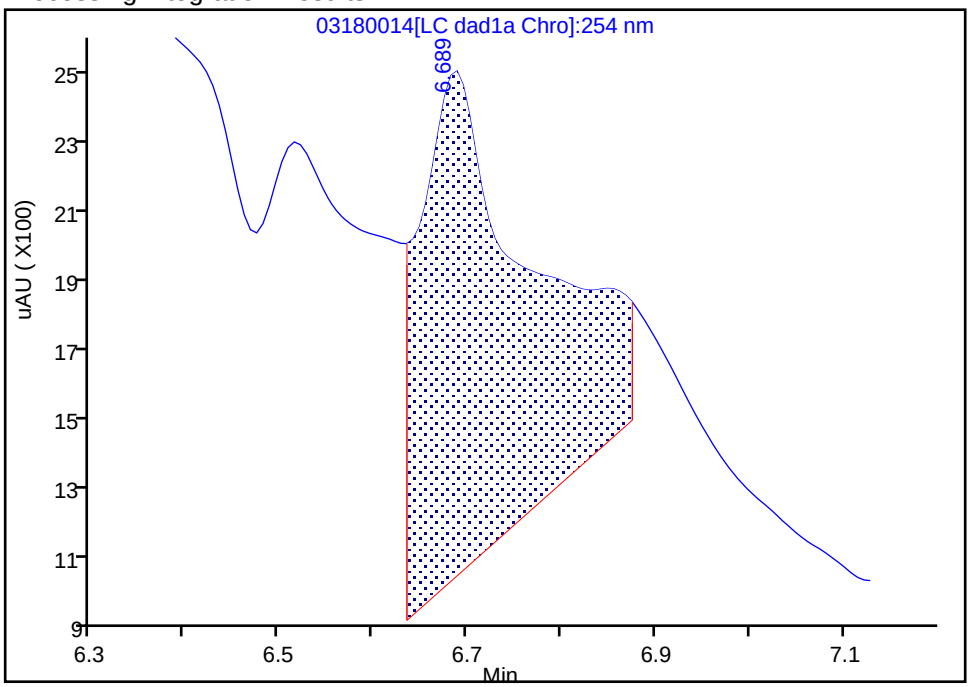
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

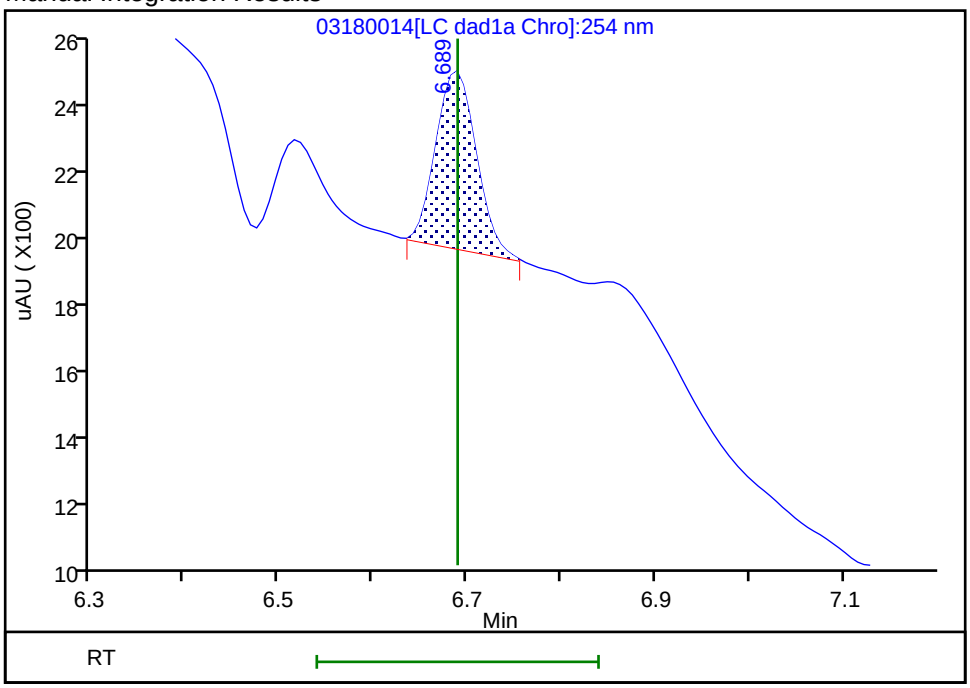
Processing Integration Results

RT: 6.69
Area: 11606
Amount: 0.072526
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 1536
Amount: 0.017868
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

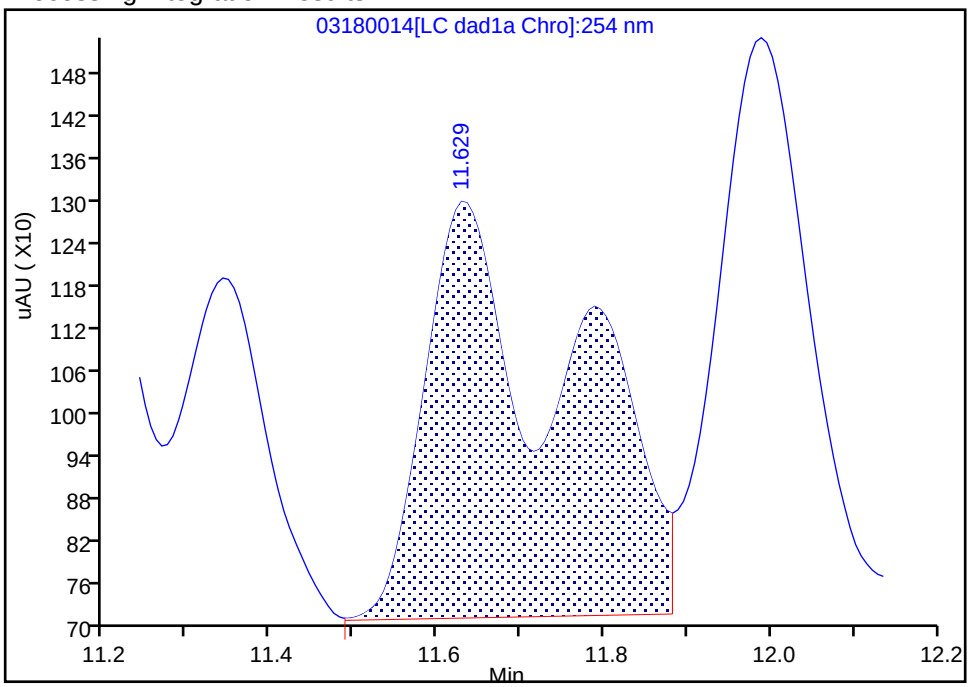
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

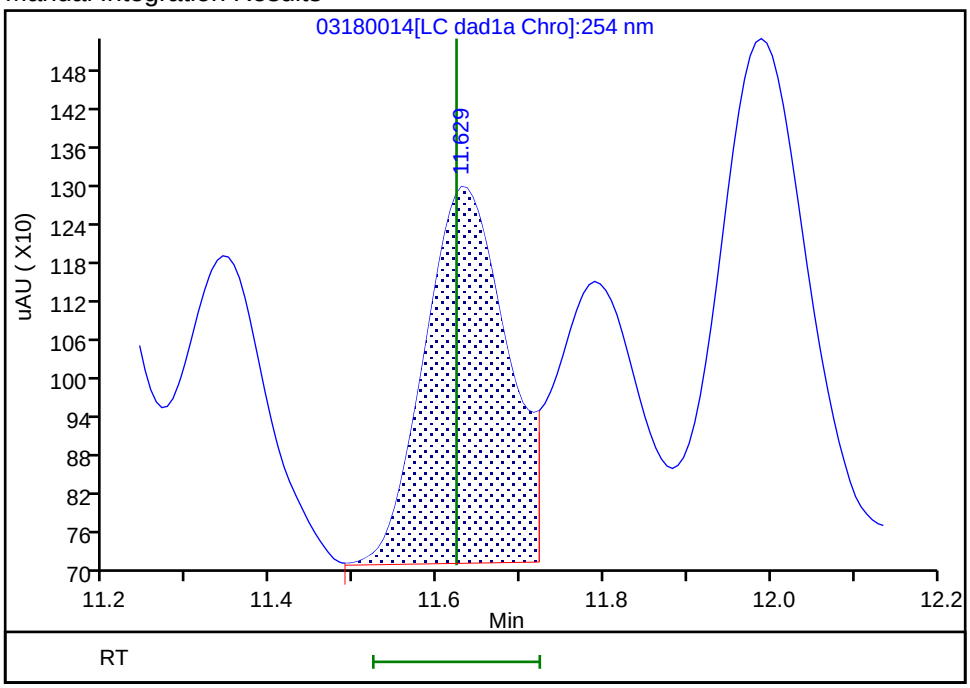
Processing Integration Results

RT: 11.63
Area: 7030
Amount: 0.030654
Amount Units: ug/mL



Manual Integration Results

RT: 11.63
Area: 4046
Amount: 0.019949
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:36
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D
Lims ID: IC MAIN L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Mar-2020 14:39:27 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L1
Misc. Info.: 280-0090150-015
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:45 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:46:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1		6.689			ND	ND	MU
7 RDX	1		7.749			ND	ND	MU
8 2,4,6-Trinitrophenol	1	8.082	8.076	0.006	1082	0.0125	0.0127	M
$ 9 1,2-Dinitrobenzene	1	8.715	8.709	0.006	1531	0.0125	0.0111	
10 1,3,5-Trinitrobenzene	1	8.888	8.883	0.005	2405	0.0125	0.0104	
11 1,3-Dinitrobenzene	1	9.535	9.529	0.006	3191	0.0125	0.0104	
12 Nitrobenzene	1	9.915	9.916	-0.001	2176	0.0126	0.0109	
14 Tetryl	1	10.221	10.216	0.005	1664	0.0125	0.009399	
15 Nitroglycerin	2	10.735	10.729	0.006	6790	0.1250	0.0997	
16 2,4,6-Trinitrotoluene	1	11.195	11.183	0.012	1807	0.0126	0.008856	
17 4-Amino-2,6-dinitrotoluene	1	11.341	11.336	0.005	981	0.0125	0.0120	
18 2-Amino-4,6-dinitrotoluene	1	11.635	11.623	0.012	2123	0.0126	0.0105	M
19 2,6-Dinitrotoluene	1	11.795	11.783	0.012	1508	0.0126	0.0101	M
20 2,4-Dinitrotoluene	1	11.995	11.983	0.012	3142	0.0126	0.0103	
21 o-Nitrotoluene	1	12.828	12.823	0.005	1615	0.0125	0.0120	
22 p-Nitrotoluene	1	13.268	13.256	0.012	1080	0.0125	0.009557	
23 m-Nitrotoluene	1	13.855	13.849	0.006	1403	0.0125	0.009809	
24 PETN	2		14.936			ND	ND	MU

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

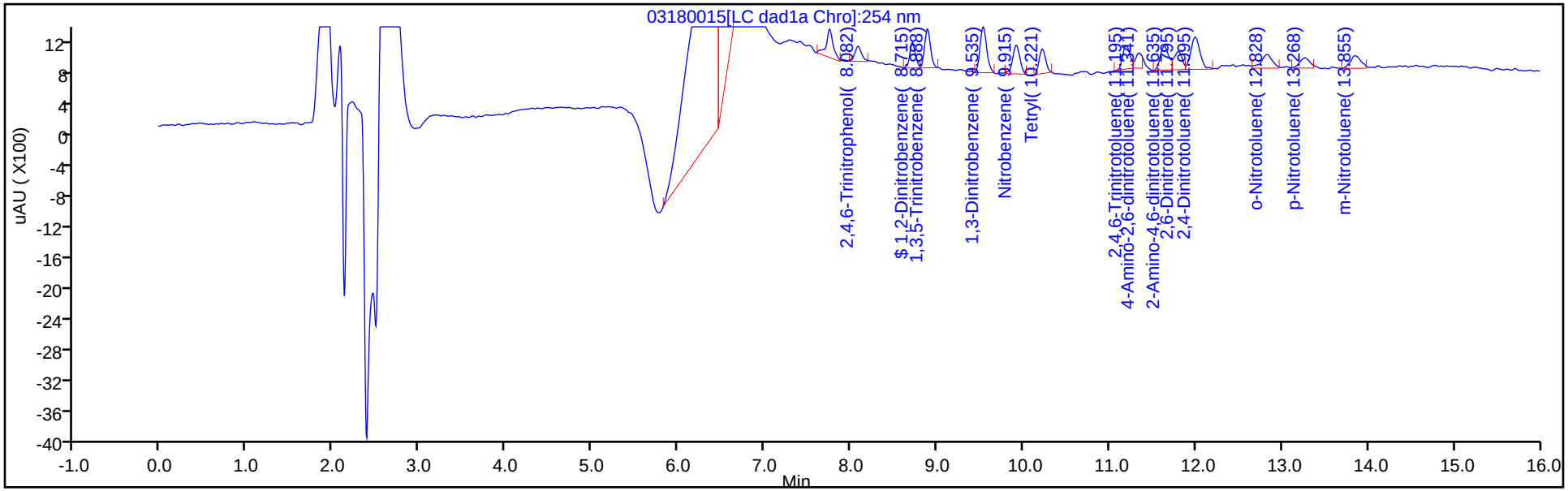
8330IntermStk_00061 Amount Added: 1.25 Units: uL

Report Date: 26-Mar-2020 15:45:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

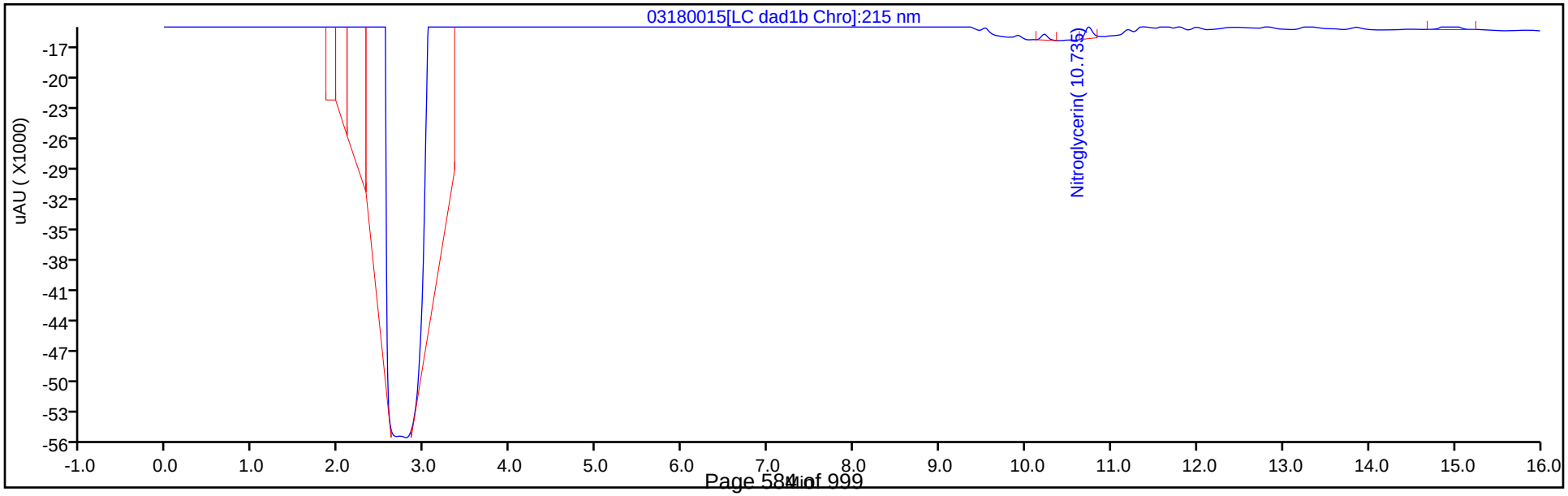
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d				
Injection Date:	18-Mar-2020 14:39:27	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L1			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

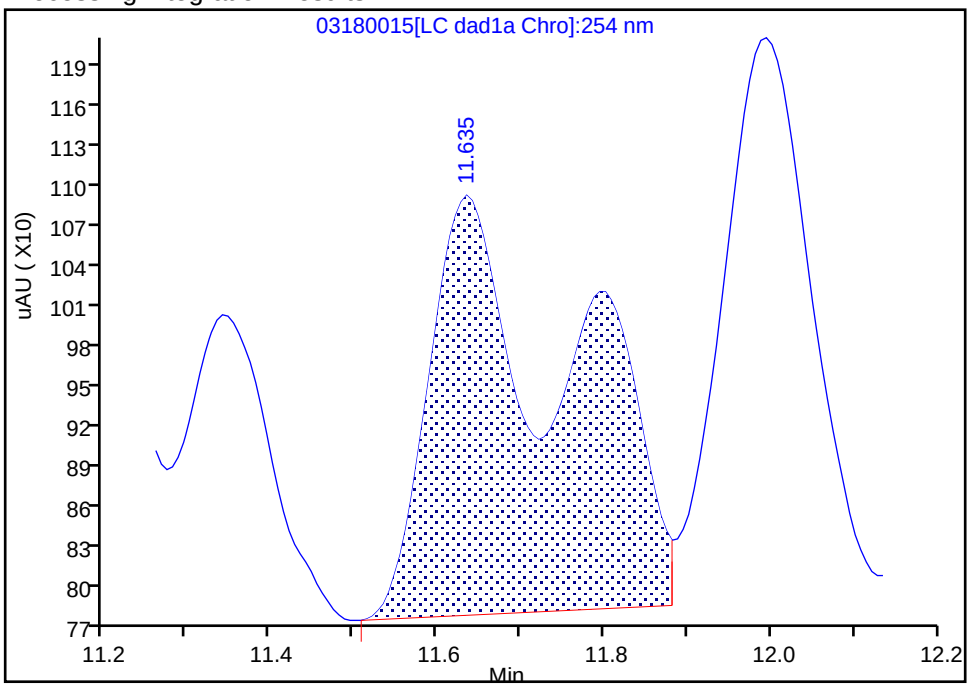
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d				
Injection Date:	18-Mar-2020 14:39:27	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

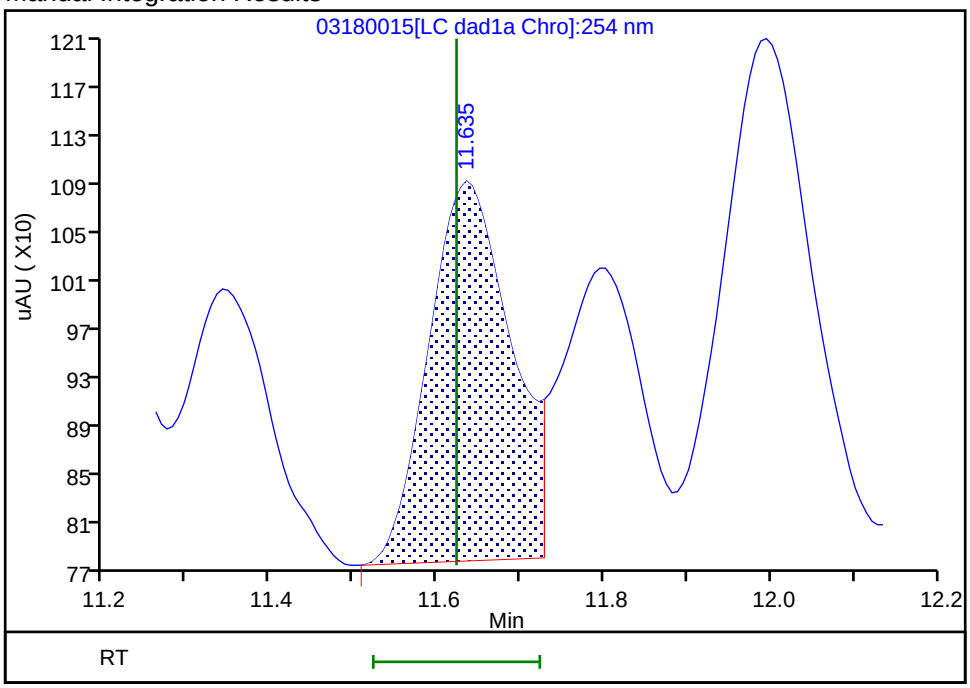
Processing Integration Results

RT: 11.63
Area: 3626
Amount: 0.016777
Amount Units: ug/mL



Manual Integration Results

RT: 11.63
Area: 2123
Amount: 0.010468
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:46:18
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Picric acid	Ave	193810	184585		381	400	-4.8	15.0
HMX	Lin2		178815		374	400	-6.5	15.0
RDX	Ave	244360	211628		346	400	-13.4	15.0
Nitrobenzene	Ave	439227	438053		399	400	-0.3	15.0
1,3-Dinitrobenzene	Ave	674189	636963		378	400	-5.5	15.0
Nitroglycerin	Ave	126803	122258		3860	4000	-3.6	15.0
2-Nitrotoluene	Ave	272965	263495		386	400	-3.5	15.0
4-Nitrotoluene	Ave	240881	229805		382	400	-4.6	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	318460		369	400	-7.8	15.0
3-Nitrotoluene	Ave	298327	286883		385	400	-3.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	446188		384	400	-4.1	15.0
1,3,5-Trinitrobenzene	Ave	472451	495920		420	400	5.0	15.0
2,6-Dinitrotoluene	Lin2		302720		403	400	0.8	15.0
2,4-Dinitrotoluene	Ave	640113	590383		369	400	-7.8	15.0
Tetryl	Ave	368678	347680		377	400	-5.7	15.0
2,4,6-Trinitrotoluene	Lin1		390228		381	400	-4.8	15.0
PETN	Lin1		124707		3650	4000	-8.8	15.0
1,2-Dinitrobenzene	Lin1		250760		355	400	-11.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Picric acid	6.23	6.15	6.45
HMX	6.95	6.84	7.14
RDX	9.12	9.02	9.32
Nitrobenzene	12.05	11.96	12.26
1,3-Dinitrobenzene	15.50	15.40	15.70
Nitroglycerin	15.81	15.70	16.00
2-Nitrotoluene	16.49	16.38	16.68
4-Nitrotoluene	16.77	16.67	16.97
4-Amino-2,6-dinitrotoluene	17.10	17.00	17.30
3-Nitrotoluene	17.69	17.60	17.90
2-Amino-4,6-dinitrotoluene	17.99	17.90	18.20
1,3,5-Trinitrobenzene	18.83	18.74	19.04
2,6-Dinitrotoluene	19.75	19.66	19.96
2,4-Dinitrotoluene	20.24	20.14	20.44
Tetryl	23.51	23.40	23.70
2,4,6-Trinitrotoluene	24.61	24.50	24.80
PETN	25.25	25.13	25.43
1,2-Dinitrobenzene	12.99	12.89	13.19

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140016.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2020 21:31:26 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0091518-016
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 14-May-2020 20:56:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:55:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.307	4.366	-0.059	179307	0.4000	0.4177	M
2 2,4-diamino-6-nitrotoluene	1	4.840	4.880	-0.040	97723	0.4000	0.3877	M
5 2,4,6-Trinitrophenol	1	6.234	6.300	-0.066	73834	0.4000	0.3810	a
6 HMX	1	6.954	6.986	-0.032	71526	0.4000	0.3740	
8 RDX	1	9.120	9.173	-0.053	84651	0.4000	0.3464	
9 Nitrobenzene	1	12.053	12.106	-0.053	175221	0.4000	0.3989	
$ 10 1,2-Dinitrobenzene	1	12.987	13.040	-0.053	100304	0.4000	0.3552	
11 3,5-Dinitroaniline	1	14.827	14.886	-0.059	185478	0.4000	0.3767	
12 1,3-Dinitrobenzene	1	15.500	15.553	-0.053	254785	0.4000	0.3779	
13 Nitroglycerin	2	15.807	15.853	-0.046	489033	4.00	3.86	
14 o-Nitrotoluene	1	16.493	16.533	-0.040	105398	0.4000	0.3861	M
15 p-Nitrotoluene	1	16.767	16.820	-0.053	91922	0.4000	0.3816	M
16 4-Amino-2,6-dinitrotoluene	1	17.100	17.146	-0.046	127384	0.4000	0.3690	M
17 m-Nitrotoluene	1	17.693	17.753	-0.060	114753	0.4000	0.3847	M
18 2-Amino-4,6-dinitrotoluene	1	17.987	18.046	-0.059	178475	0.4000	0.3836	M
19 1,3,5-Trinitrobenzene	1	18.833	18.886	-0.053	198368	0.4000	0.4199	M
20 2,6-Dinitrotoluene	1	19.753	19.806	-0.053	121088	0.4000	0.4033	M
21 2,4-Dinitrotoluene	1	20.240	20.293	-0.053	236153	0.4000	0.3689	M
22 Tetryl	1	23.507	23.553	-0.046	139072	0.4000	0.3772	
23 2,4,6-Trinitrotoluene	1	24.607	24.653	-0.046	156091	0.4000	0.3808	
24 PETN	2	25.254	25.280	-0.026	498829	4.00	3.65	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

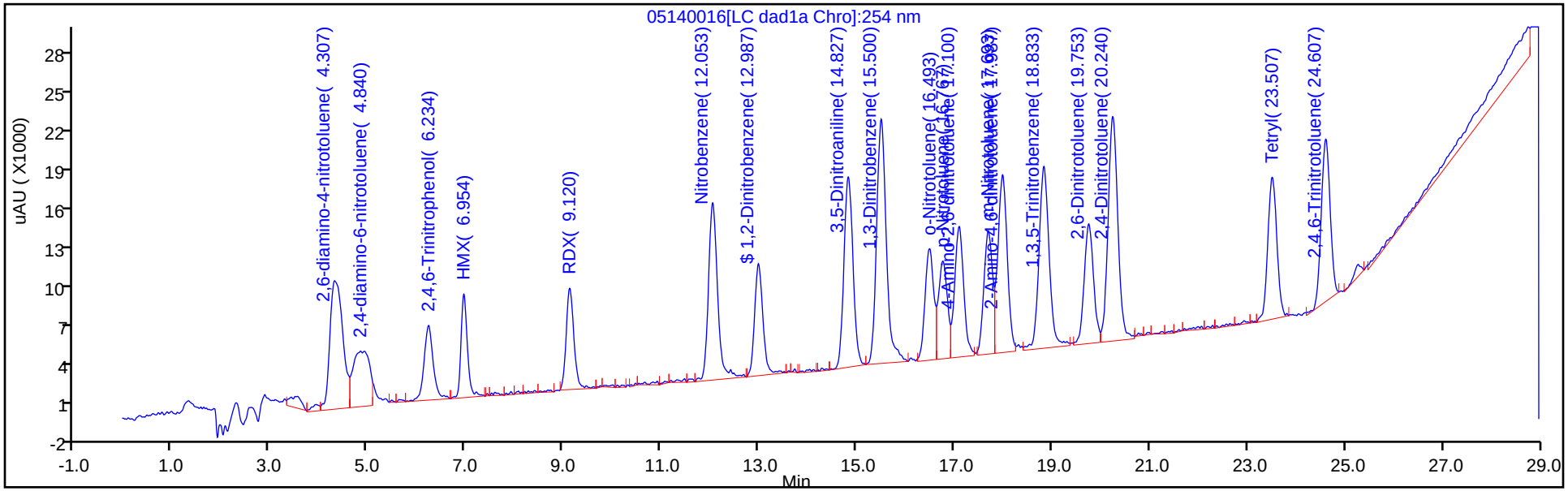
8330Surrogate_00114	Amount Added:	40.00	Units: uL
3,5-DNA LCS_00036	Amount Added:	40.00	Units: uL
8330 LCS_00098	Amount Added:	40.00	Units: uL
8330DiaminLCS_00038	Amount Added:	40.00	Units: uL

Report Date: 15-May-2020 12:01:01 Chrom Revision: 2.3 05-May-2020 17:48:18

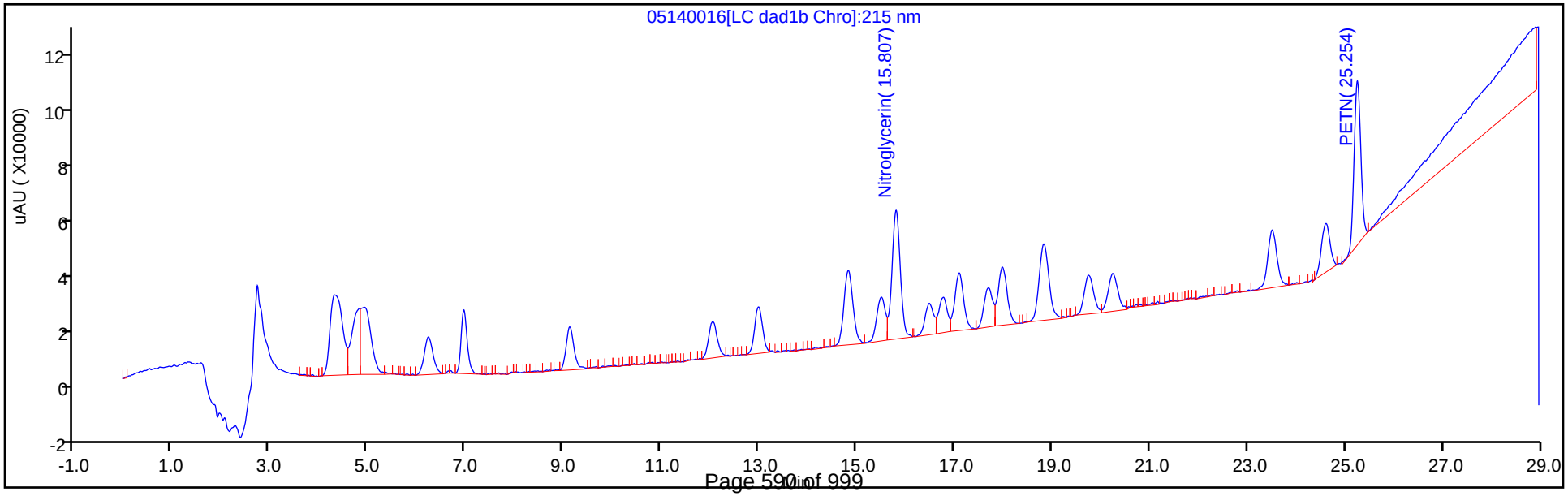
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV FULL			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

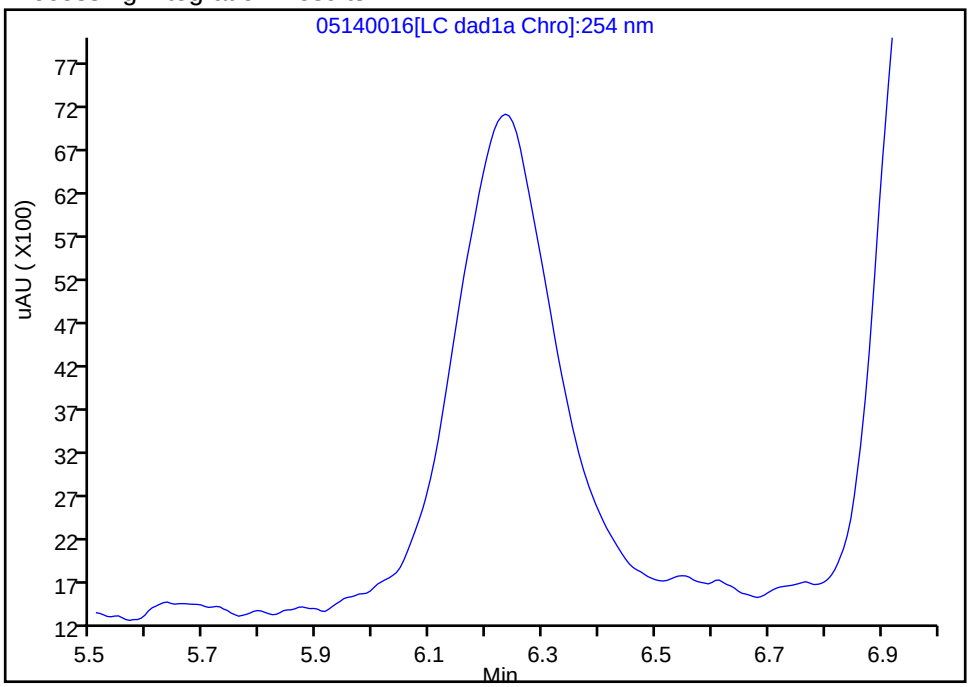
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

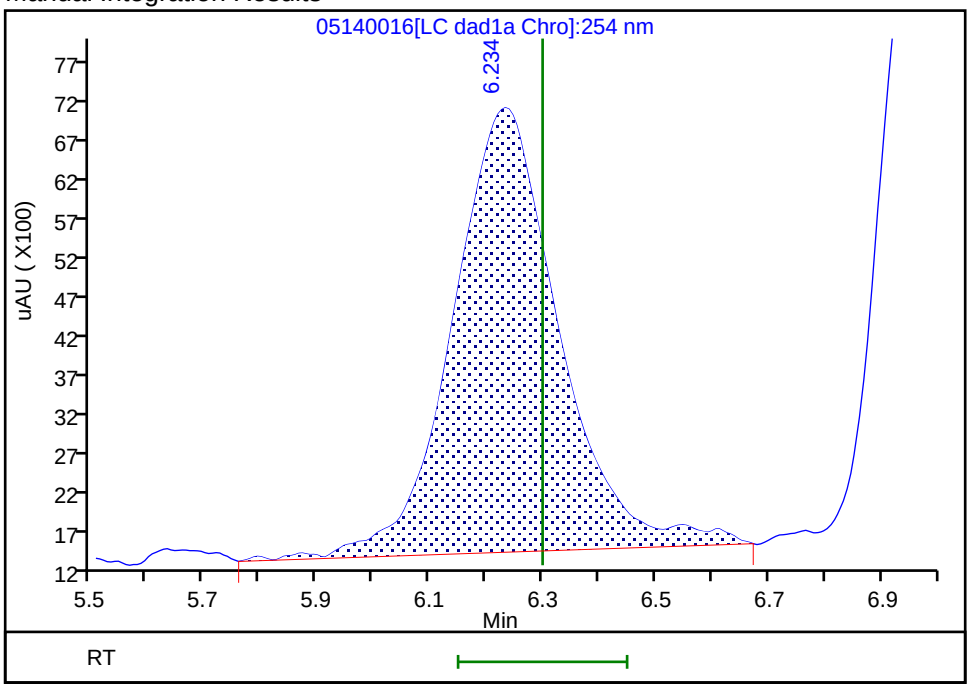
Not Detected
Expected RT: 6.30

Processing Integration Results



RT: 6.23
Area: 73834
Amount: 0.380960
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:14:55
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

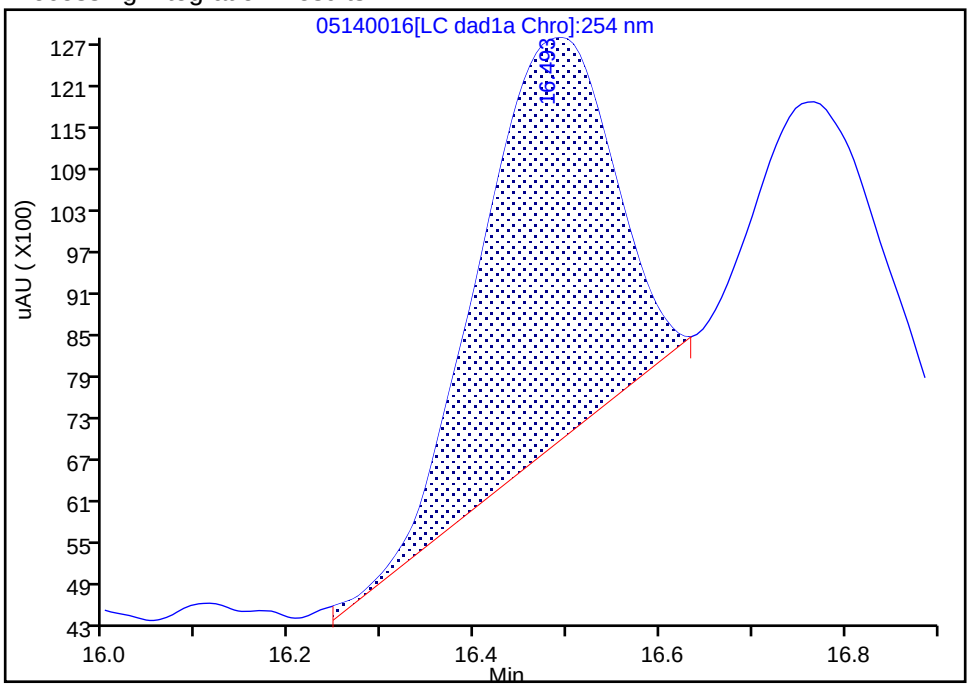
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

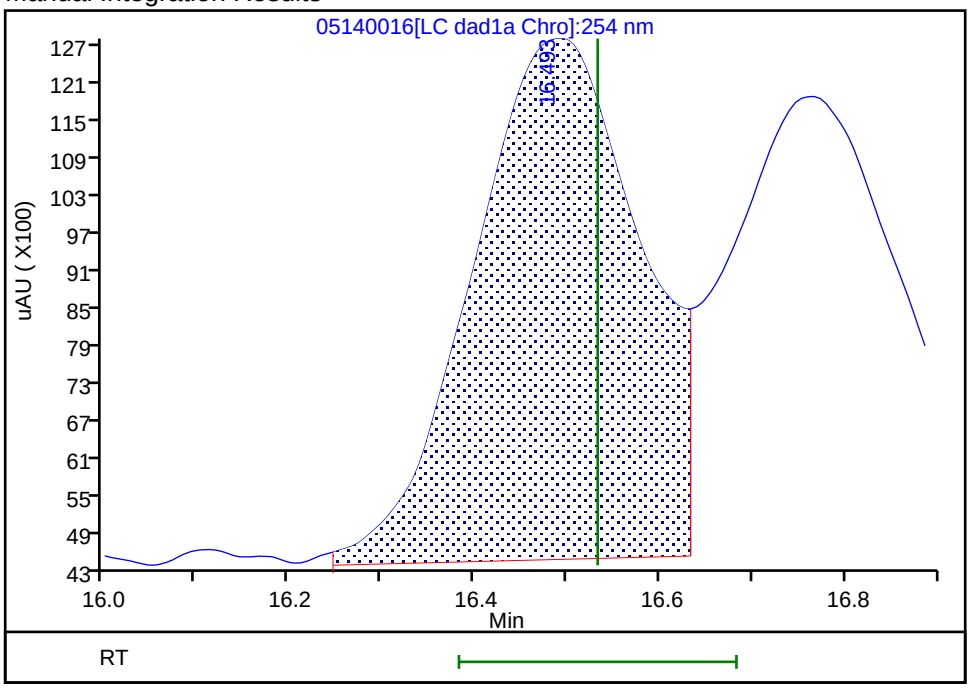
Processing Integration Results

RT: 16.49
Area: 59335
Amount: 0.217373
Amount Units: ug/ml



Manual Integration Results

RT: 16.49
Area: 105398
Amount: 0.386123
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

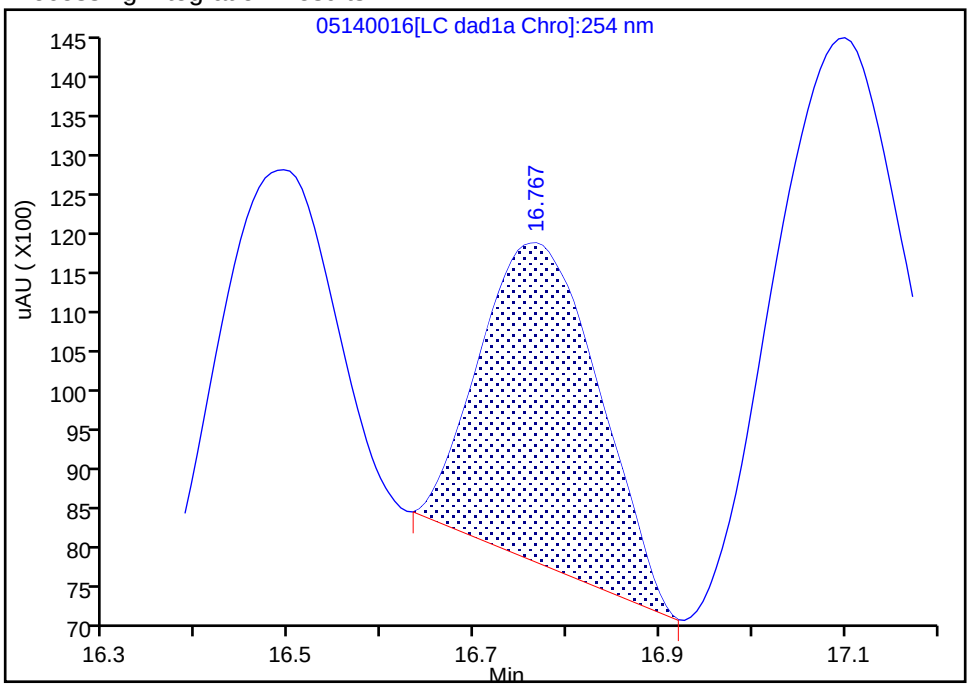
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

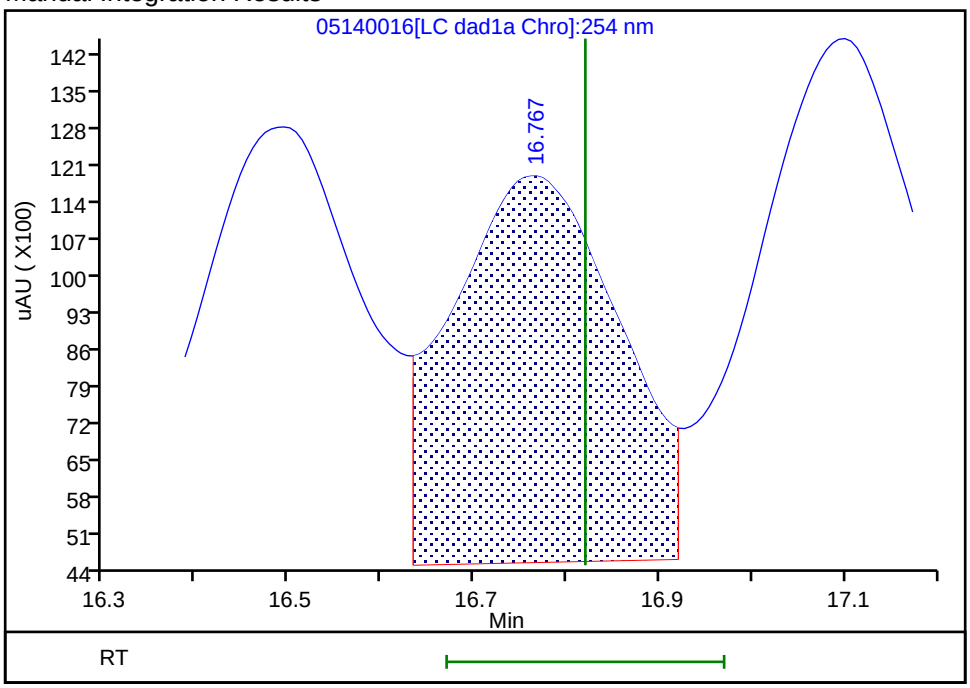
Processing Integration Results

RT: 16.77
Area: 36452
Amount: 0.151328
Amount Units: ug/ml



Manual Integration Results

RT: 16.77
Area: 91922
Amount: 0.381607
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

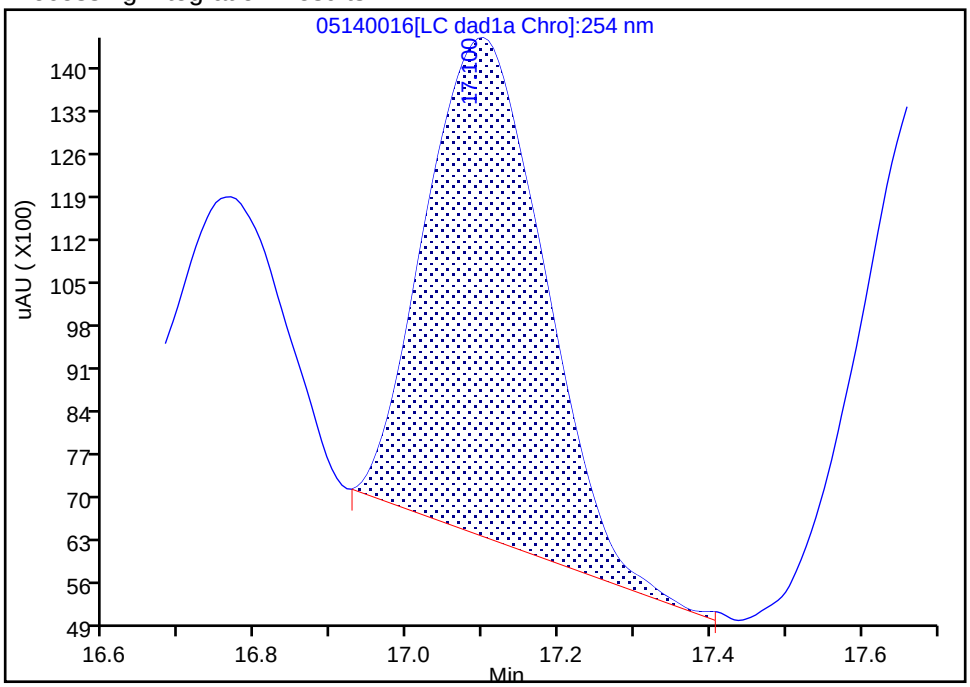
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

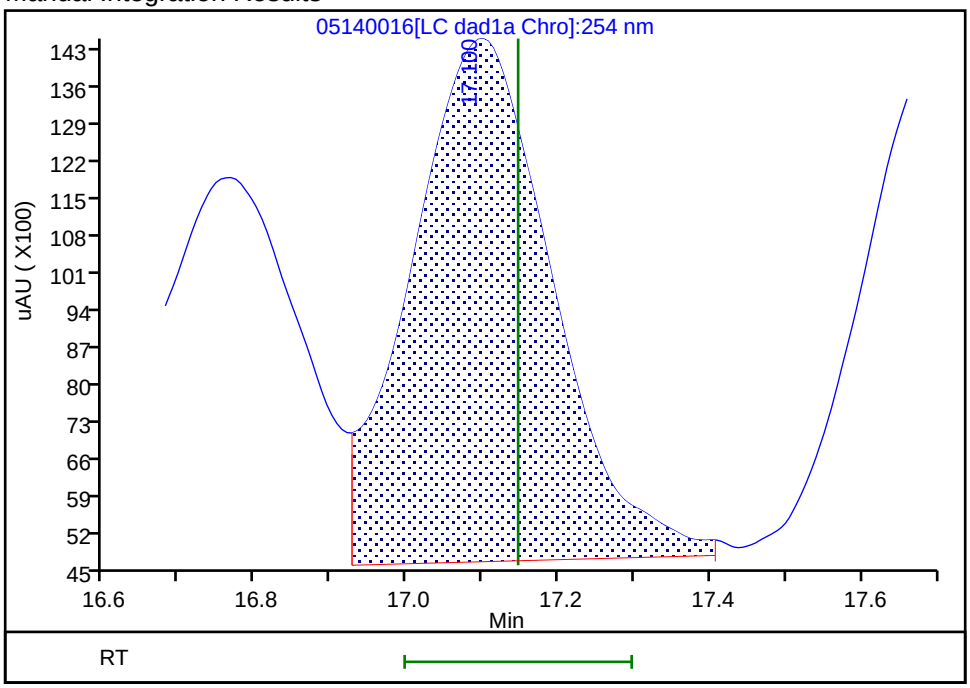
Processing Integration Results

RT: 17.10
Area: 89570
Amount: 0.259447
Amount Units: ug/ml



Manual Integration Results

RT: 17.10
Area: 127384
Amount: 0.368978
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

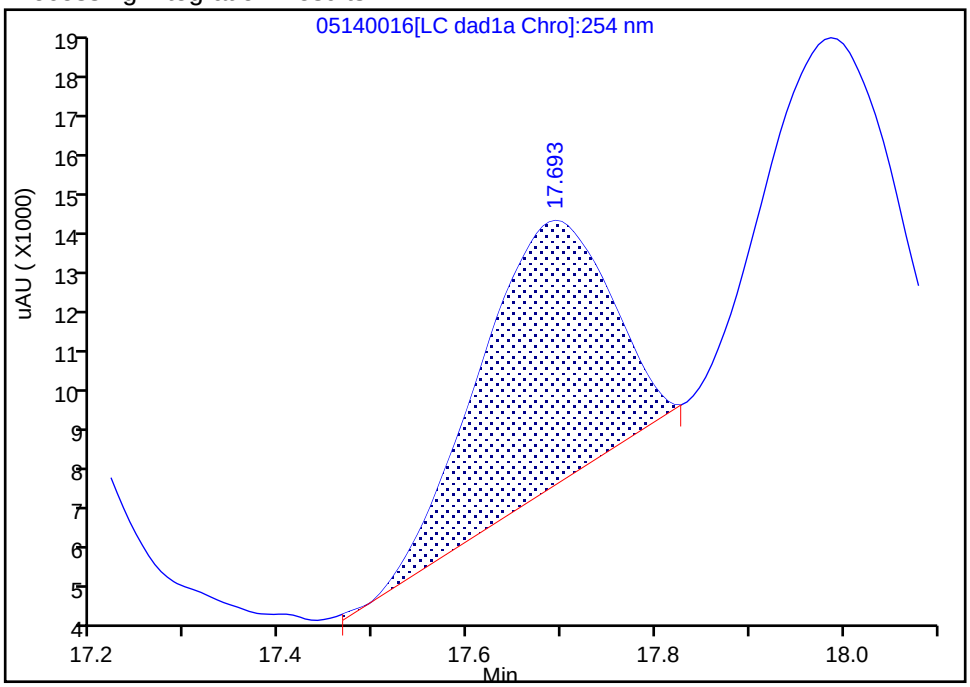
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

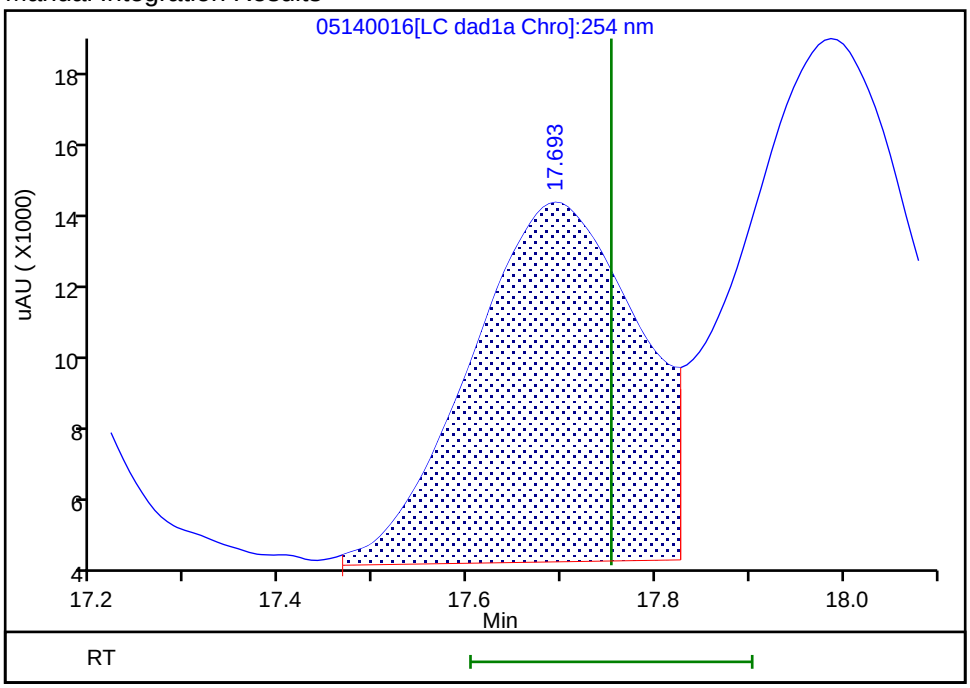
Processing Integration Results

RT: 17.69
Area: 60008
Amount: 0.201149
Amount Units: ug/ml



Manual Integration Results

RT: 17.69
Area: 114753
Amount: 0.384655
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

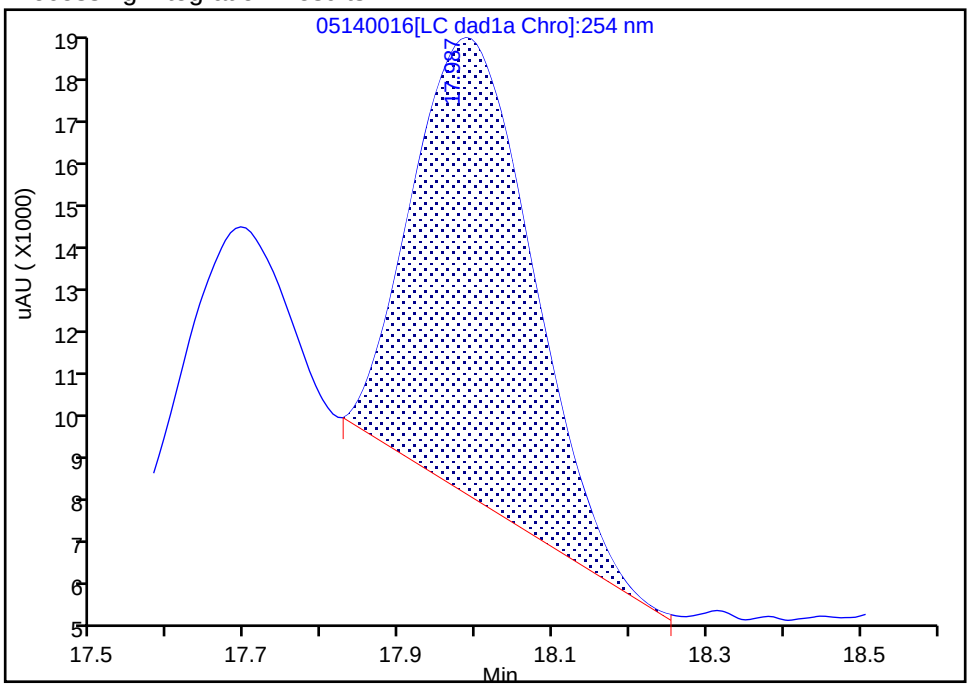
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

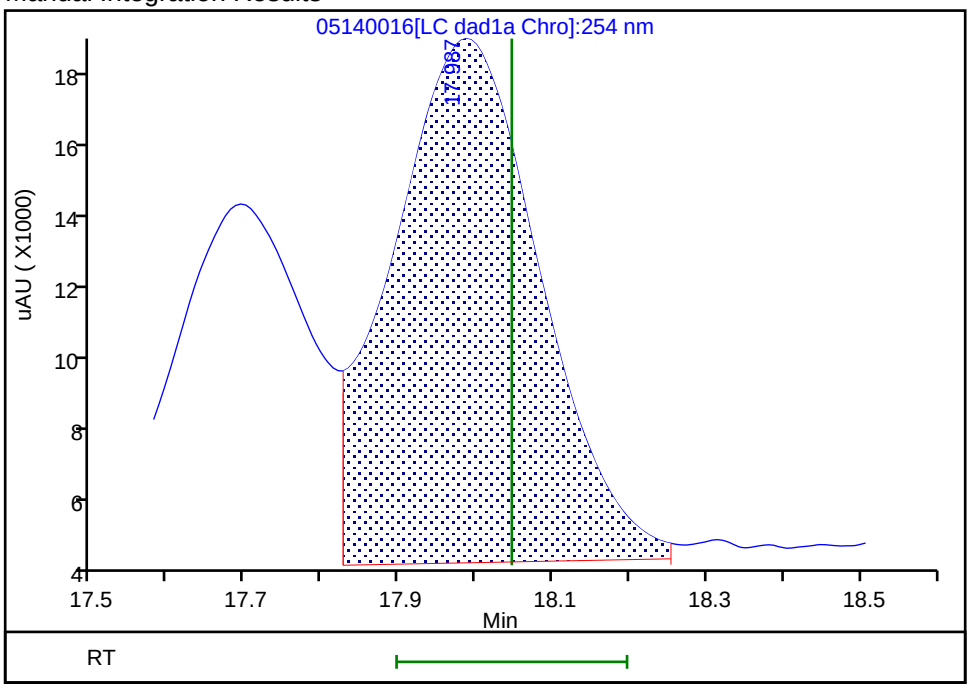
Processing Integration Results

RT: 17.99
Area: 111749
Amount: 0.240211
Amount Units: ug/ml



Manual Integration Results

RT: 17.99
Area: 178475
Amount: 0.383643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

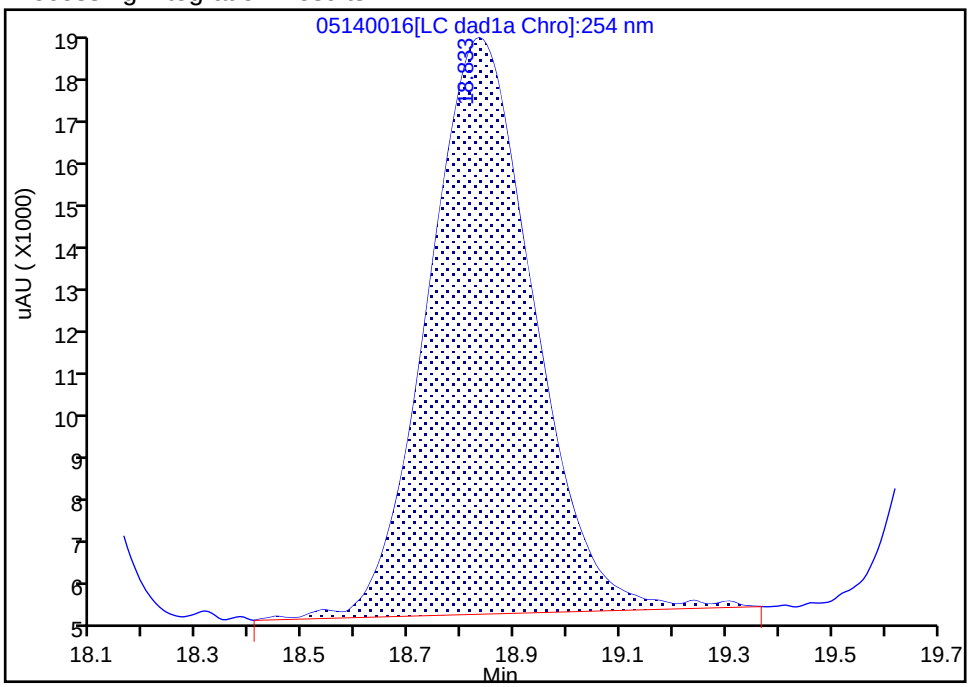
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

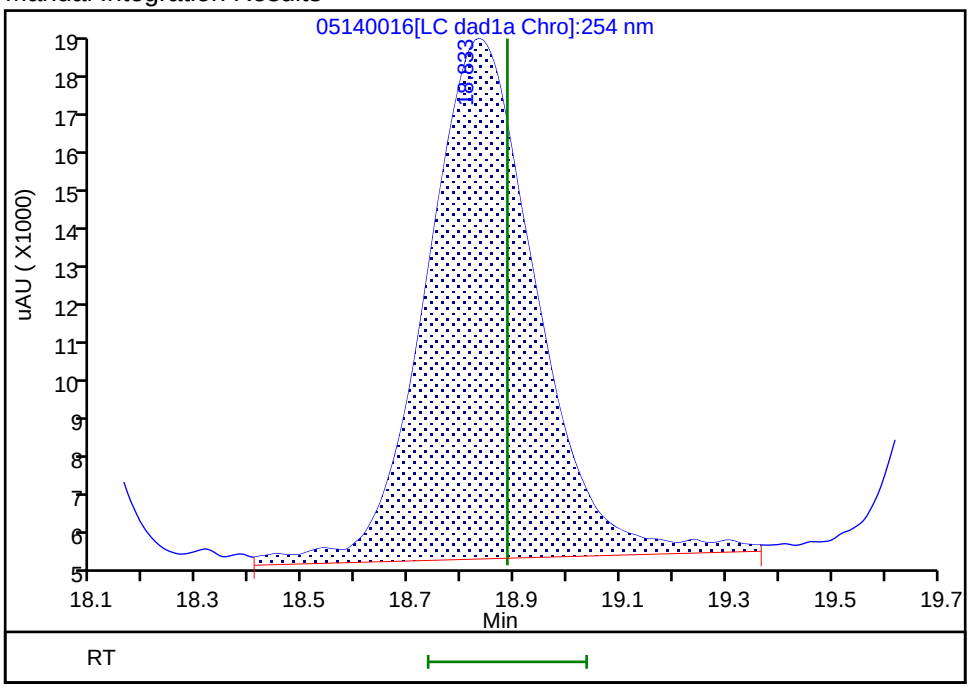
Processing Integration Results

RT: 18.83
Area: 187655
Amount: 0.397195
Amount Units: ug/ml



Manual Integration Results

RT: 18.83
Area: 198368
Amount: 0.419870
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

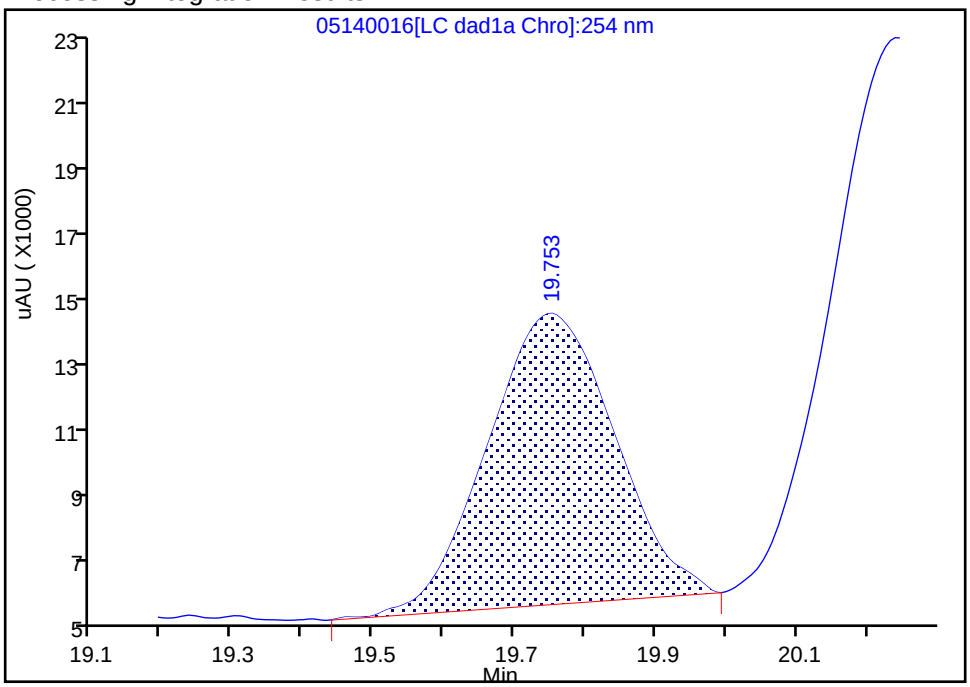
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

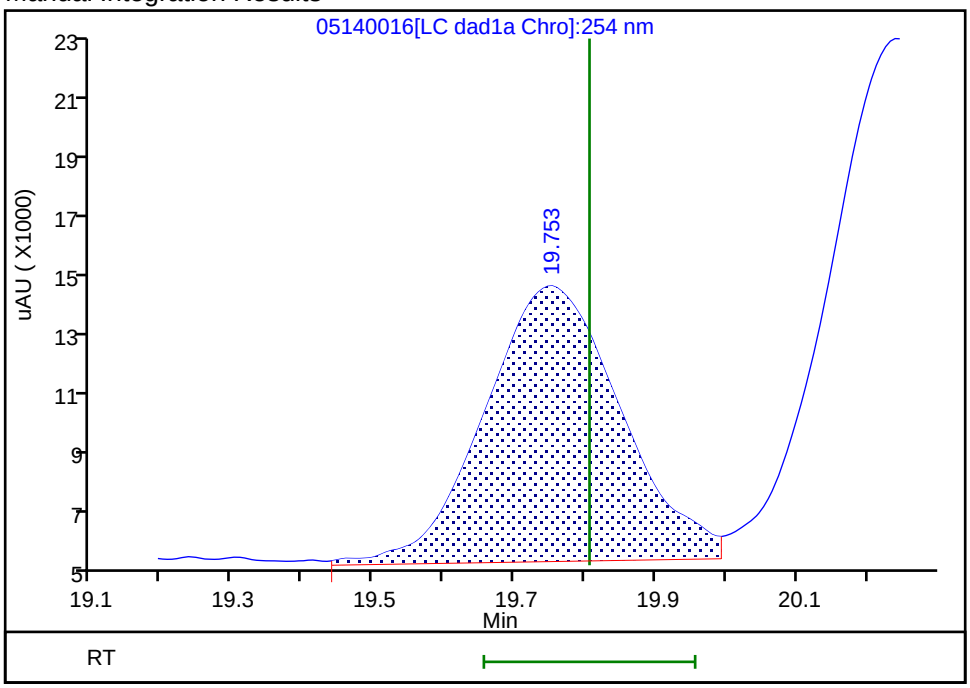
Processing Integration Results

RT: 19.75
Area: 106845
Amount: 0.315968
Amount Units: ug/ml



Manual Integration Results

RT: 19.75
Area: 121088
Amount: 0.403336
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

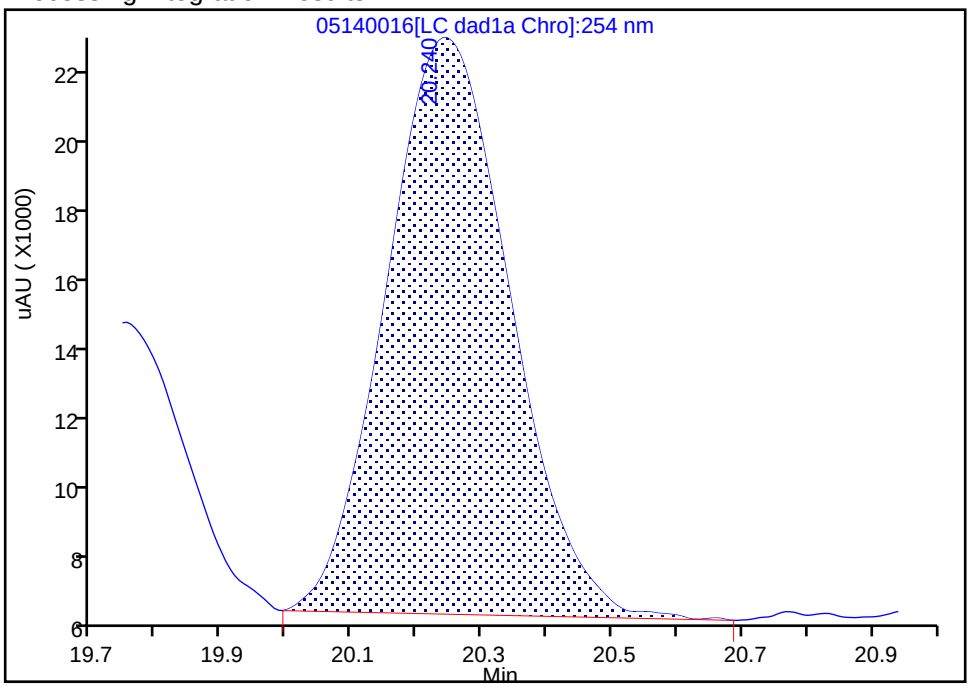
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

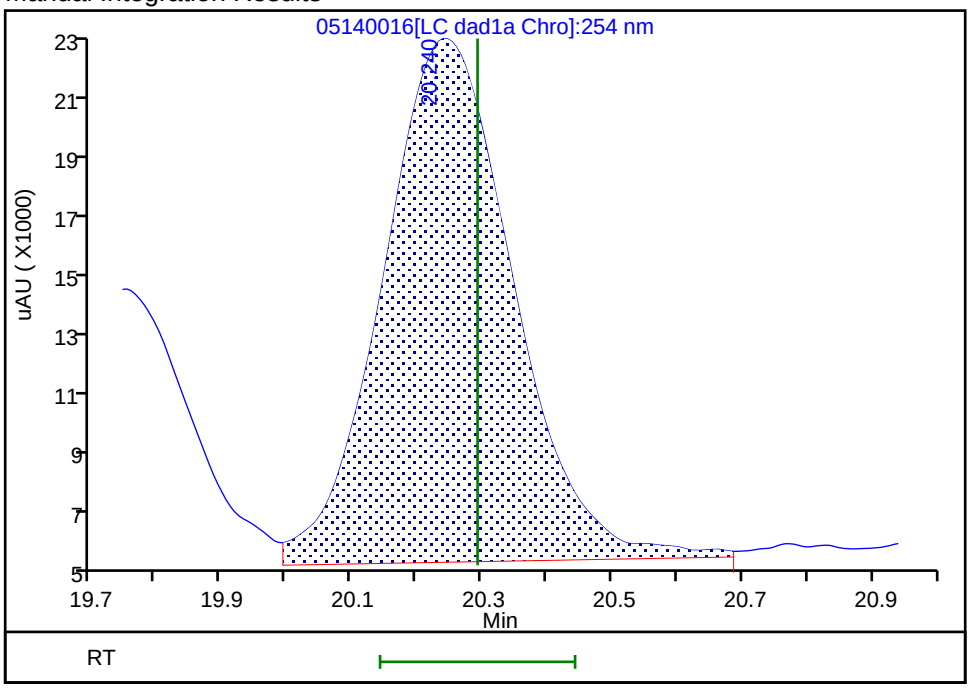
Processing Integration Results

RT: 20.24
Area: 217350
Amount: 0.339549
Amount Units: ug/ml



Manual Integration Results

RT: 20.24
Area: 236153
Amount: 0.368924
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-494886/26 Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	391496		360	400	-10.2	15.0
DNX	Ave	321206	289486		361	400	-9.9	15.0
MNX	Lin2		268209		449	467	-3.8	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-494886/26 Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.41	5.27	5.57
DNX	6.22	6.08	6.38
MNX	7.73	7.59	7.89

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140026.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2020 03:21:17	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0091518-026				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:					
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:38:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.408	5.417	-0.009	156755	0.4004	0.3597	
4 DNX	1	6.215	6.231	-0.016	115910	0.4004	0.3609	
7 MNX	1	7.728	7.744	-0.016	125200	0.4668	0.4488	

Reagents:

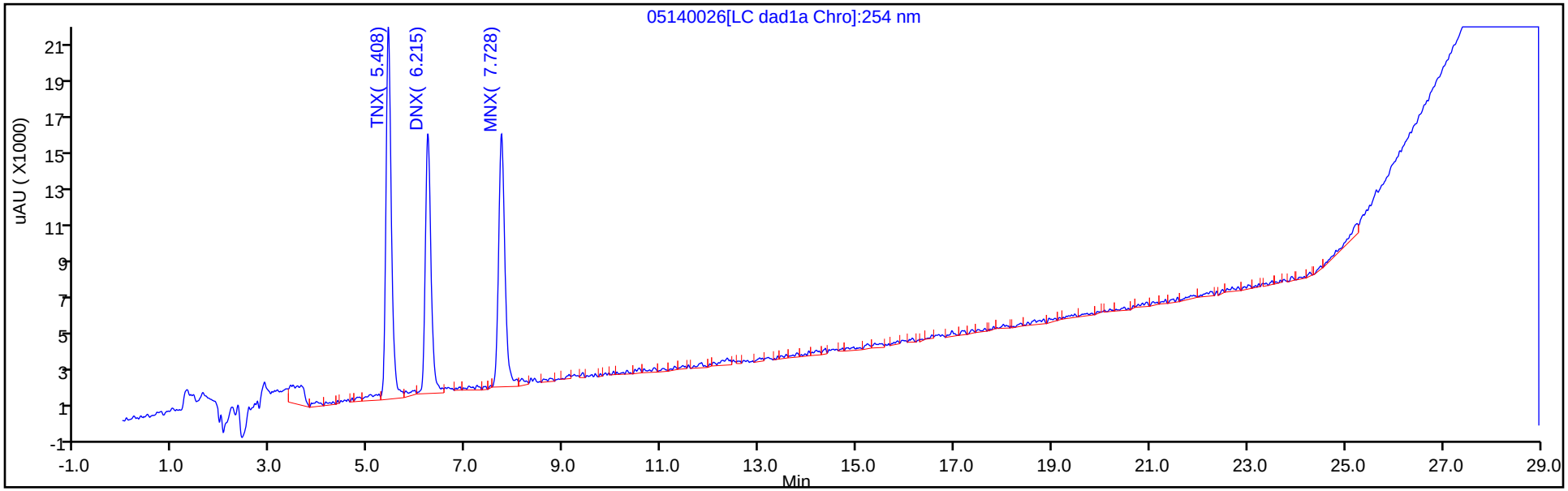
8330_OP_DMT_00008 Amount Added: 40.00 Units: uL

Report Date: 15-May-2020 12:01:06 Chrom Revision: 2.3 05-May-2020 17:48:18

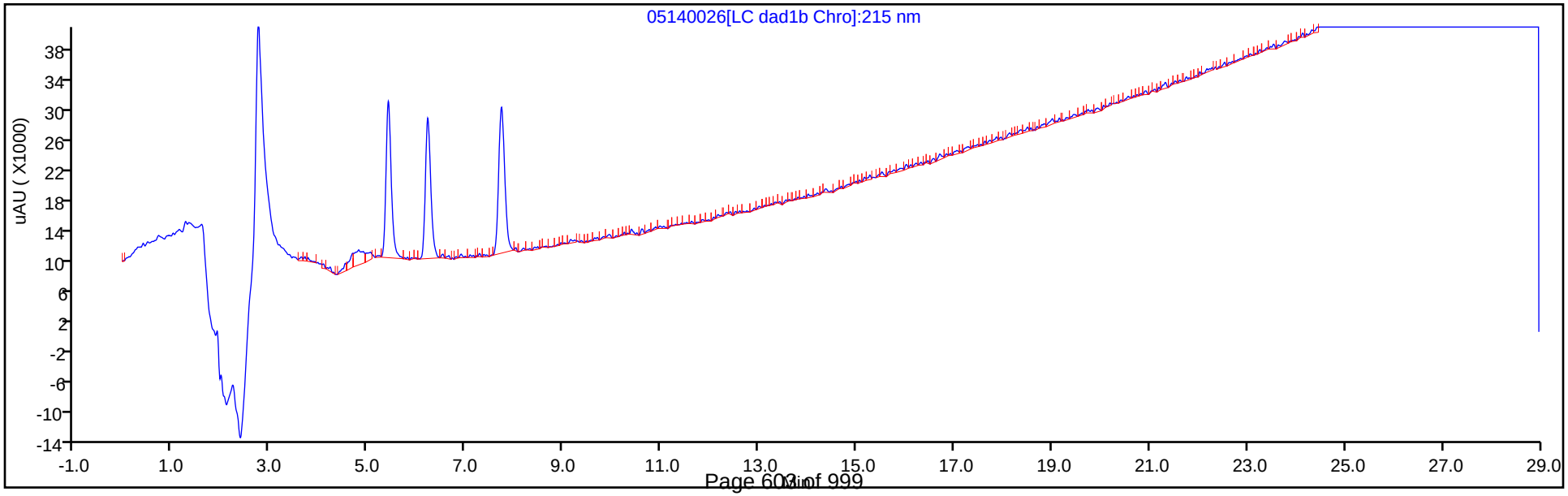
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140026.d				
Injection Date:	15-May-2020 03:21:17	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV DMT			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/31 Calibration Date: 07/03/2020 09:43

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 07020031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		178416		222	250	-11.2	15.0
Picric acid	Ave	193810	179184		231	250	-7.5	15.0
RDX	Ave	244360	221228		226	250	-9.5	15.0
Nitrobenzene	Ave	439227	389928		223	251	-11.2	15.0
1,3-Dinitrobenzene	Ave	674189	649265		241	251	-3.7	15.0
Nitroglycerin	Ave	126803	135834		2680	2500	7.1	15.0
2-Nitrotoluene	Ave	272965	233088		213	250	-14.6	15.0
4-Nitrotoluene	Ave	240881	214647		223	251	-10.9	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	317111		230	250	-8.1	15.0
3-Nitrotoluene	Ave	298327	260152		218	250	-12.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	438956		237	251	-5.6	15.0
1,3,5-Trinitrobenzene	Ave	472451	475509		252	251	0.6	15.0
2,6-Dinitrotoluene	Lin2		315375		258	251	2.9	15.0
2,4-Dinitrotoluene	Ave	640113	610275		239	251	-4.7	15.0
Tetryl	Ave	368678	327369		222	251	-11.2	15.0
2,4,6-Trinitrotoluene	Lin1		378263		229	251	-8.9	15.0
PETN	Lin1		137464		2450	2500	-2.1	15.0
1,2-Dinitrobenzene	Lin1		297568		262	250	4.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/31 Calibration Date: 07/03/2020 09:43

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 07020031.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	7.21	7.10	7.40
Picric acid	8.35	8.35	8.65
RDX	9.43	9.33	9.63
Nitrobenzene	12.36	12.26	12.56
1,3-Dinitrobenzene	15.91	15.81	16.11
Nitroglycerin	16.14	16.05	16.35
2-Nitrotoluene	16.85	16.77	17.07
4-Nitrotoluene	17.14	17.05	17.35
4-Amino-2,6-dinitrotoluene	17.59	17.50	17.80
3-Nitrotoluene	18.07	17.98	18.28
2-Amino-4,6-dinitrotoluene	18.52	18.44	18.74
1,3,5-Trinitrobenzene	19.25	19.16	19.46
2,6-Dinitrotoluene	20.19	20.10	20.40
2,4-Dinitrotoluene	20.70	20.61	20.91
Tetryl	24.01	23.91	24.21
2,4,6-Trinitrotoluene	25.02	24.91	25.21
PETN	25.53	25.41	25.71
1,2-Dinitrobenzene	13.38	13.29	13.59

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020031.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jul-2020 09:43:46 ALS Bottle#: 7 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0092991-031
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Jul-2020 13:20:44 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1025

First Level Reviewer: zhangji Date: 03-Jul-2020 10:50:05

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.486	4.496	-0.010	111481	0.2500	0.2597	
2 2,4-diamino-6-nitrotoluene	1	5.046	5.056	-0.010	69149	0.2500	0.2675	
6 HMX	1	7.206	7.249	-0.043	44604	0.2500	0.2219	
5 2,4,6-Trinitrophenol	1	8.353	8.502	-0.149	44796	0.2500	0.2311	
8 RDX	1	9.433	9.476	-0.043	55307	0.2500	0.2263	
9 Nitrobenzene	1	12.360	12.409	-0.049	97872	0.2510	0.2228	
$ 10 1,2-Dinitrobenzene	1	13.380	13.436	-0.056	74392	0.2500	0.2617	
11 3,5-Dinitroaniline	1	15.320	15.382	-0.062	126359	0.2500	0.2548	M
12 1,3-Dinitrobenzene	1	15.913	15.962	-0.049	162641	0.2505	0.2412	M
13 Nitroglycerin	2	16.140	16.196	-0.056	339585	2.50	2.68	M
14 o-Nitrotoluene	1	16.853	16.916	-0.063	58272	0.2500	0.2135	M
15 p-Nitrotoluene	1	17.140	17.196	-0.056	53769	0.2505	0.2232	M
16 4-Amino-2,6-dinitrotoluene	1	17.586	17.649	-0.063	79357	0.2503	0.2299	M
17 m-Nitrotoluene	1	18.073	18.129	-0.056	65103	0.2503	0.2182	M
18 2-Amino-4,6-dinitrotoluene	1	18.520	18.589	-0.069	110178	0.2510	0.2368	M
19 1,3,5-Trinitrobenzene	1	19.246	19.309	-0.063	119115	0.2505	0.2521	M
20 2,6-Dinitrotoluene	1	20.186	20.249	-0.063	79159	0.2510	0.2584	M
21 2,4-Dinitrotoluene	1	20.700	20.756	-0.056	153179	0.2510	0.2393	M
22 Tetryl	1	24.006	24.062	-0.056	82006	0.2505	0.2224	M
23 2,4,6-Trinitrotoluene	1	25.020	25.056	-0.036	94944	0.2510	0.2285	
24 PETN	2	25.526	25.556	-0.030	343661	2.50	2.45	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

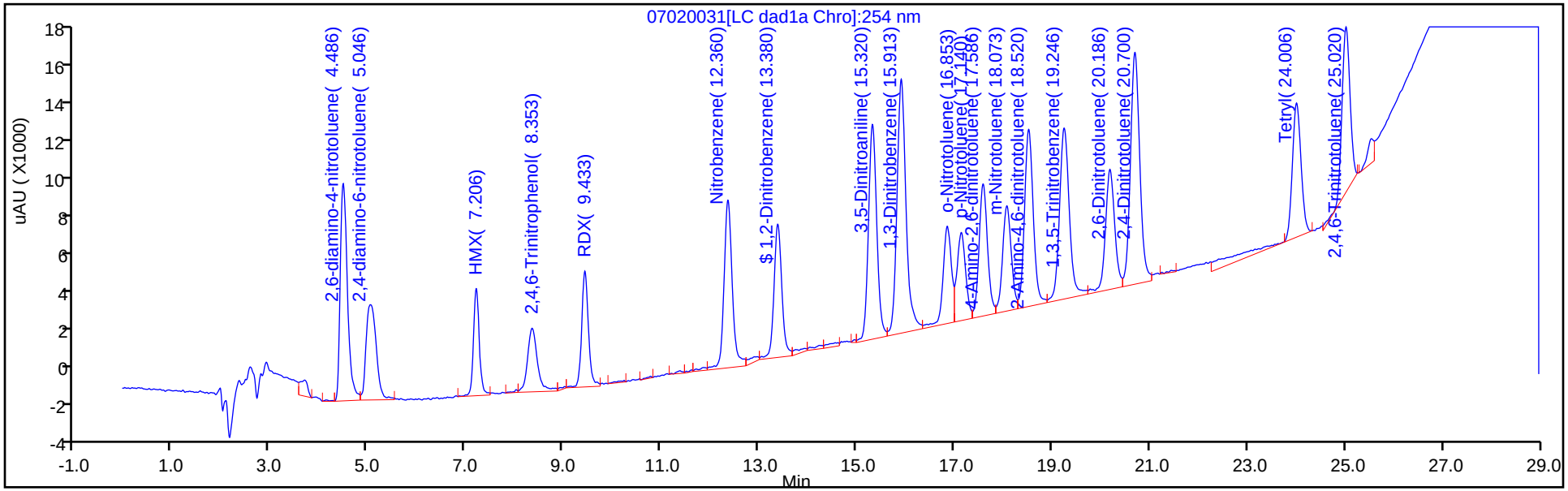
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00027	Amount Added:	12.50	Units: uL

Report Date: 03-Jul-2020 13:20:44 Chrom Revision: 2.3 21-Jun-2020 18:30:46

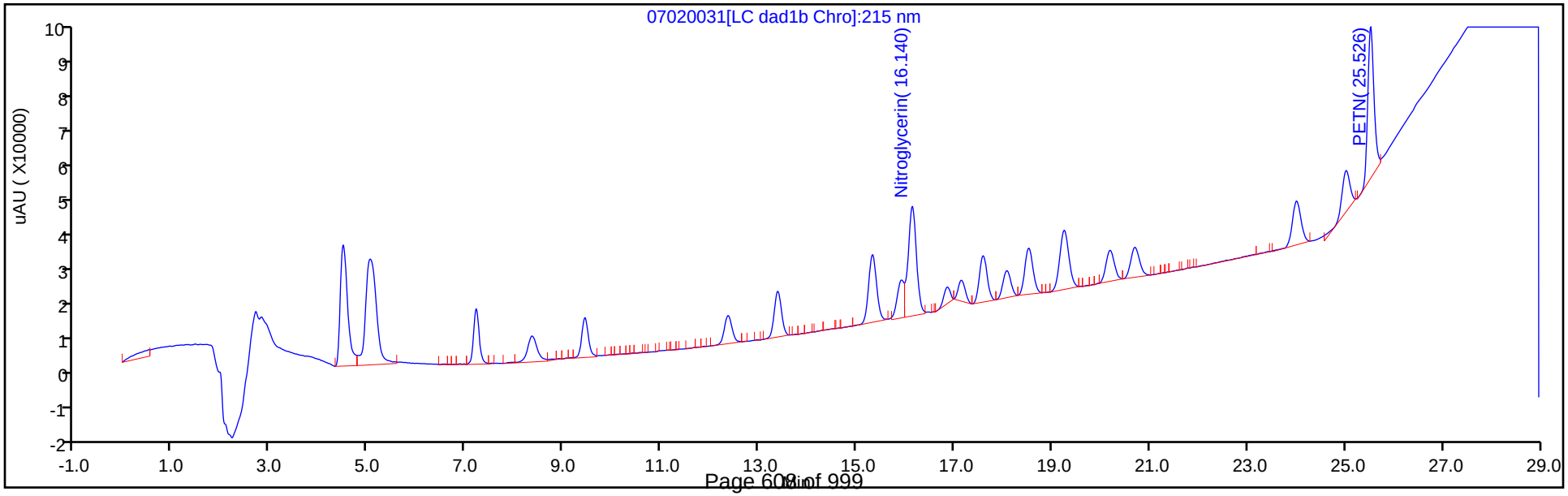
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	31
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

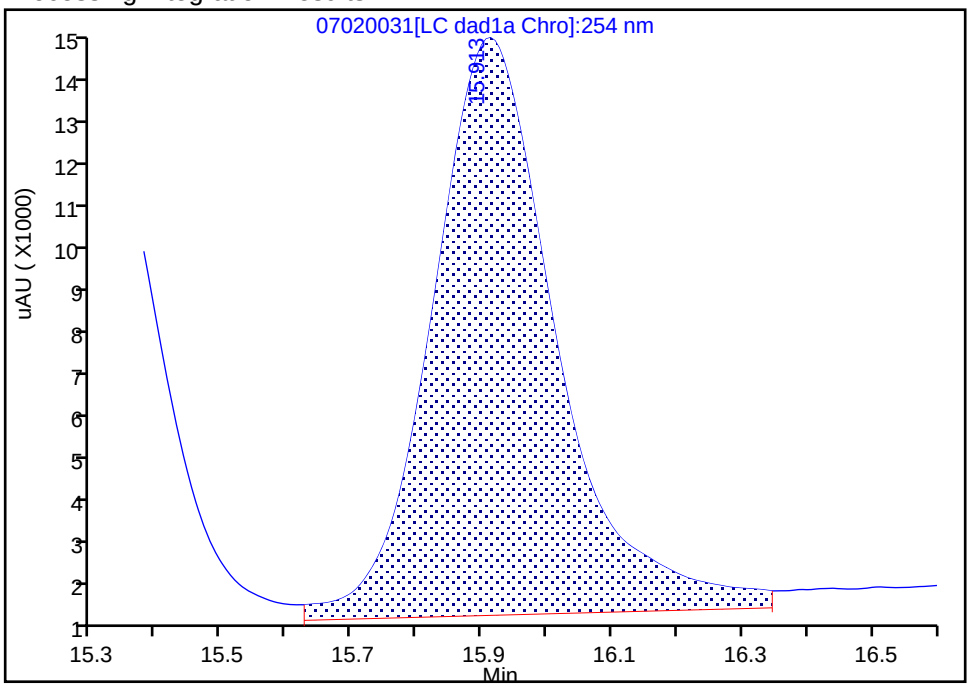
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

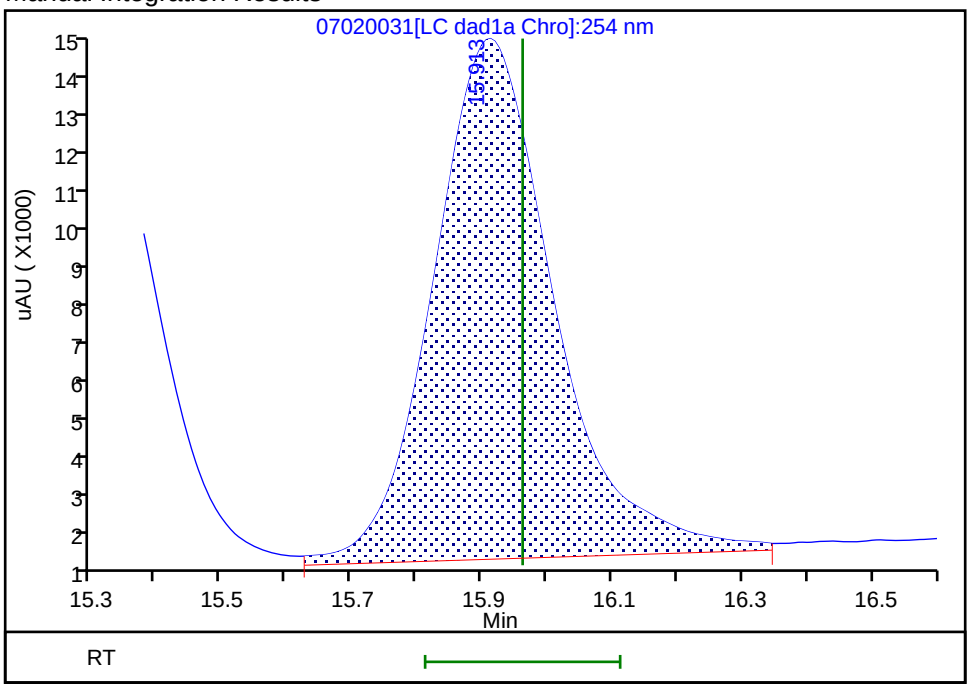
Processing Integration Results

RT: 15.91
Area: 169898
Amount: 0.252004
Amount Units: ug/ml



Manual Integration Results

RT: 15.91
Area: 162641
Amount: 0.241240
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

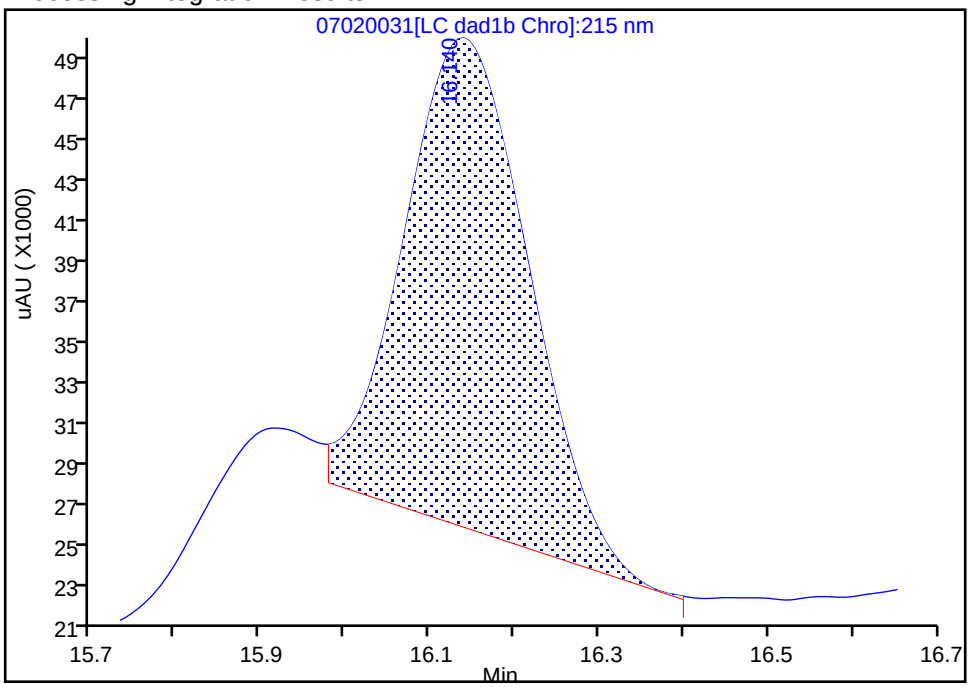
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

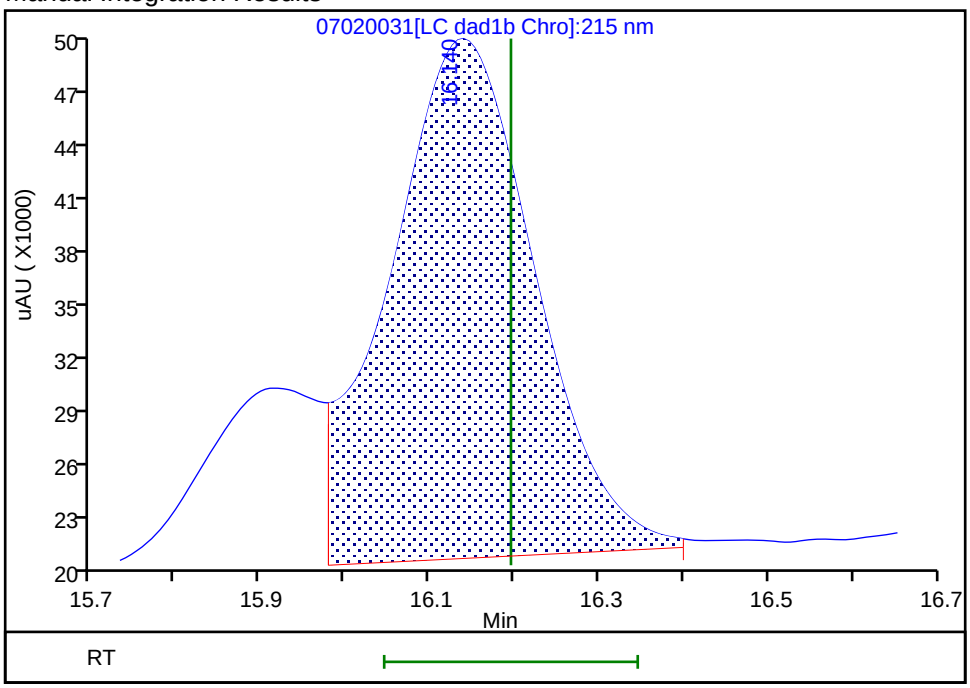
Processing Integration Results

RT: 16.14
Area: 247554
Amount: 1.952267
Amount Units: ug/ml



Manual Integration Results

RT: 16.14
Area: 339585
Amount: 2.678045
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:49:26
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

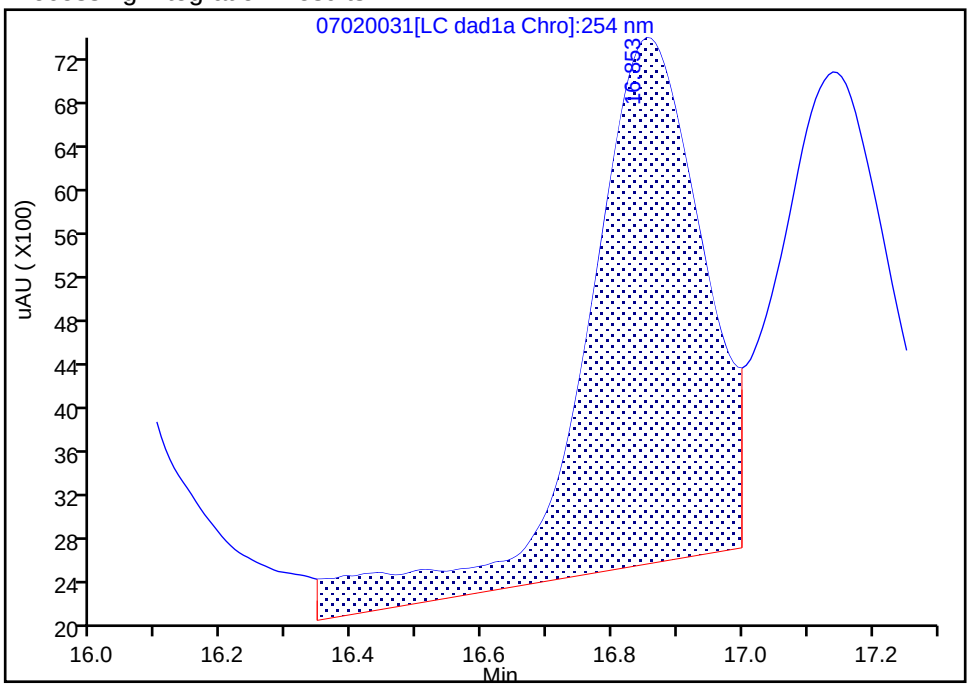
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

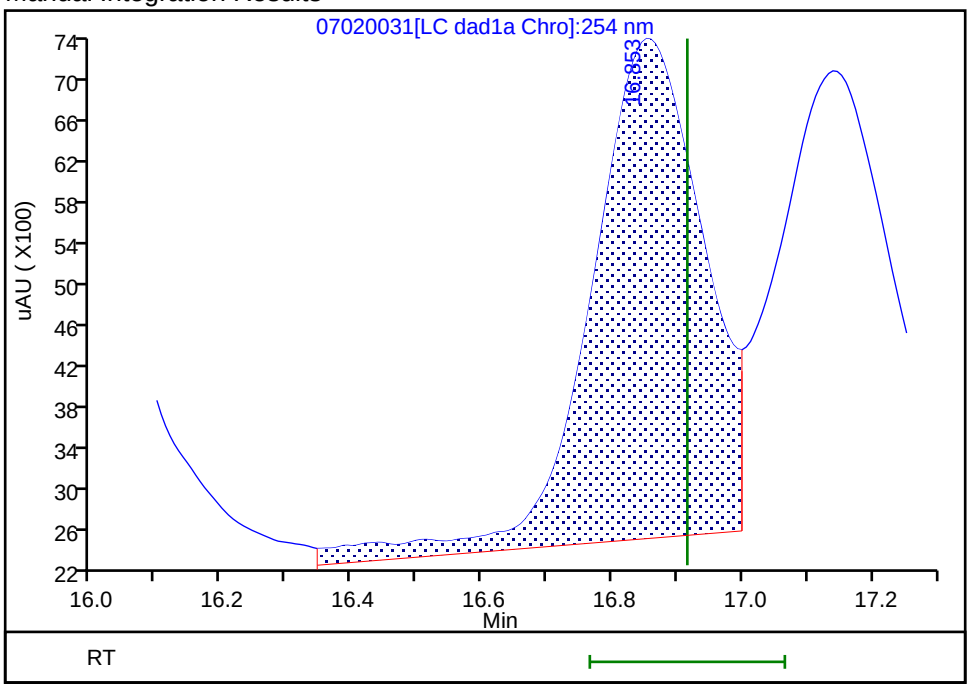
Processing Integration Results

RT: 16.85
Area: 60154
Amount: 0.220373
Amount Units: ug/ml



Manual Integration Results

RT: 16.85
Area: 58272
Amount: 0.213478
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

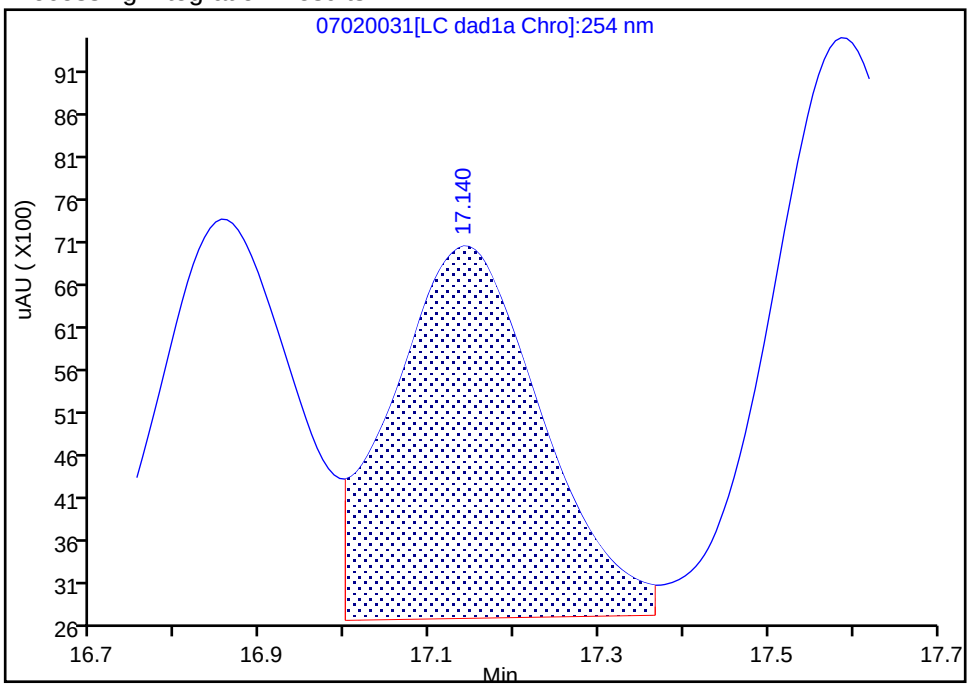
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

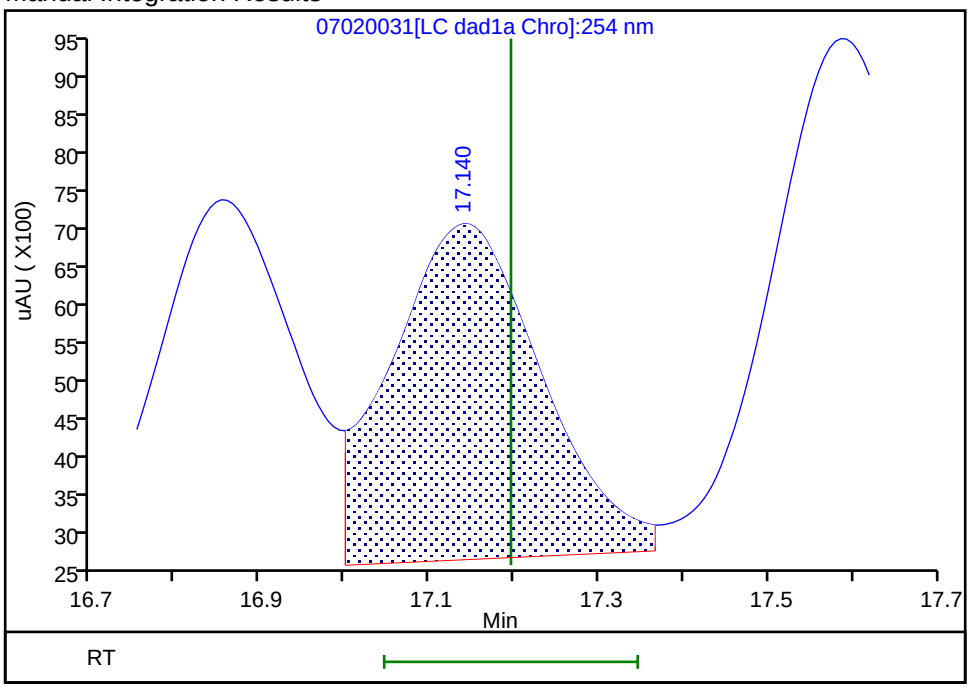
Processing Integration Results

RT: 17.14
Area: 52614
Amount: 0.218423
Amount Units: ug/ml



Manual Integration Results

RT: 17.14
Area: 53769
Amount: 0.223218
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

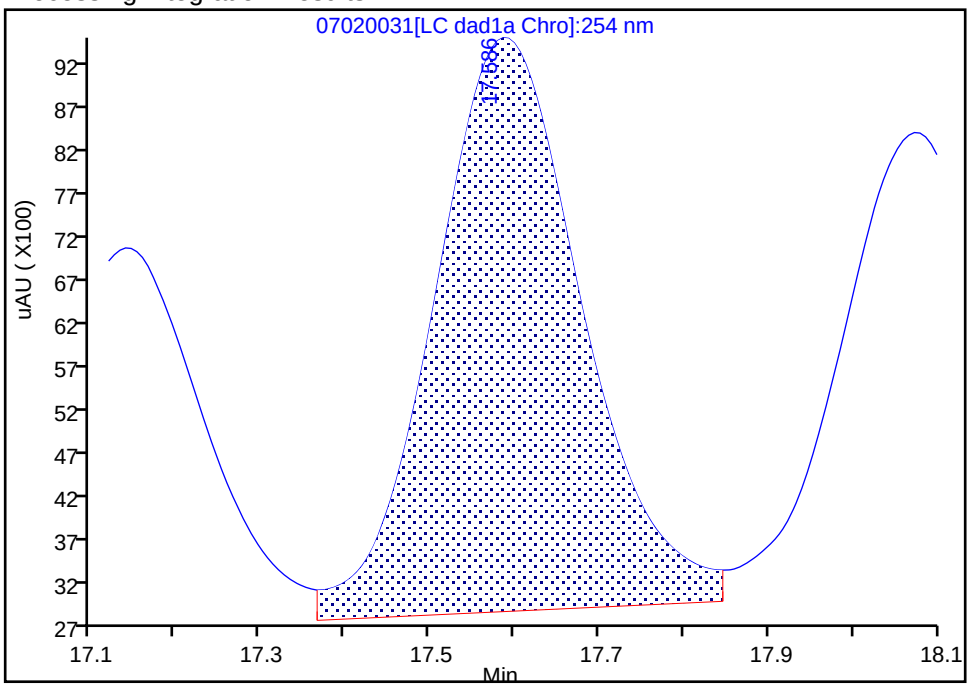
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

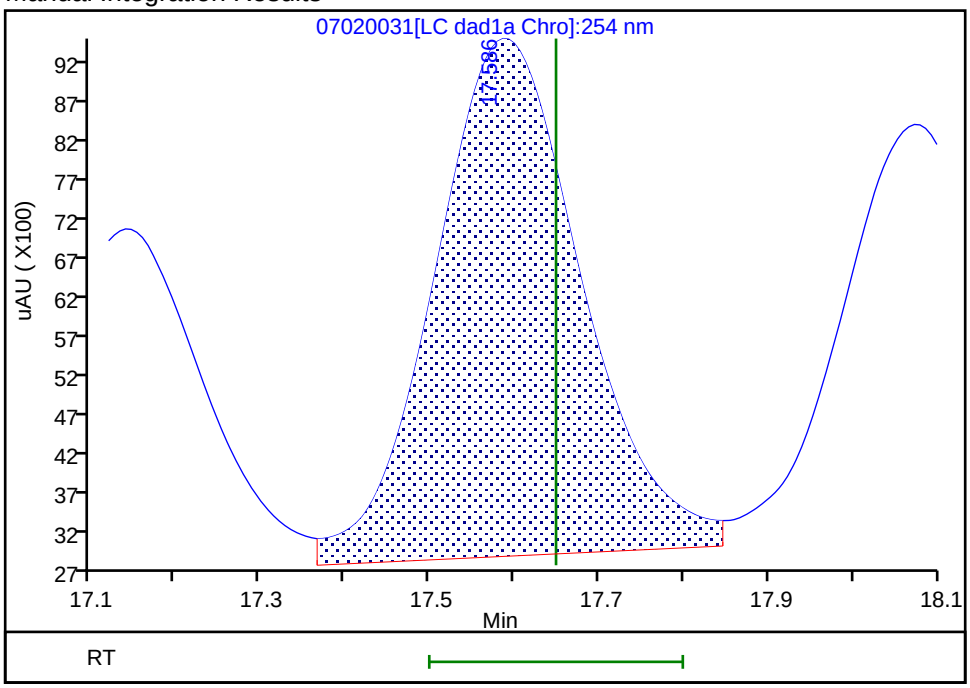
Processing Integration Results

RT: 17.59
Area: 80034
Amount: 0.231825
Amount Units: ug/ml



Manual Integration Results

RT: 17.59
Area: 79357
Amount: 0.229864
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

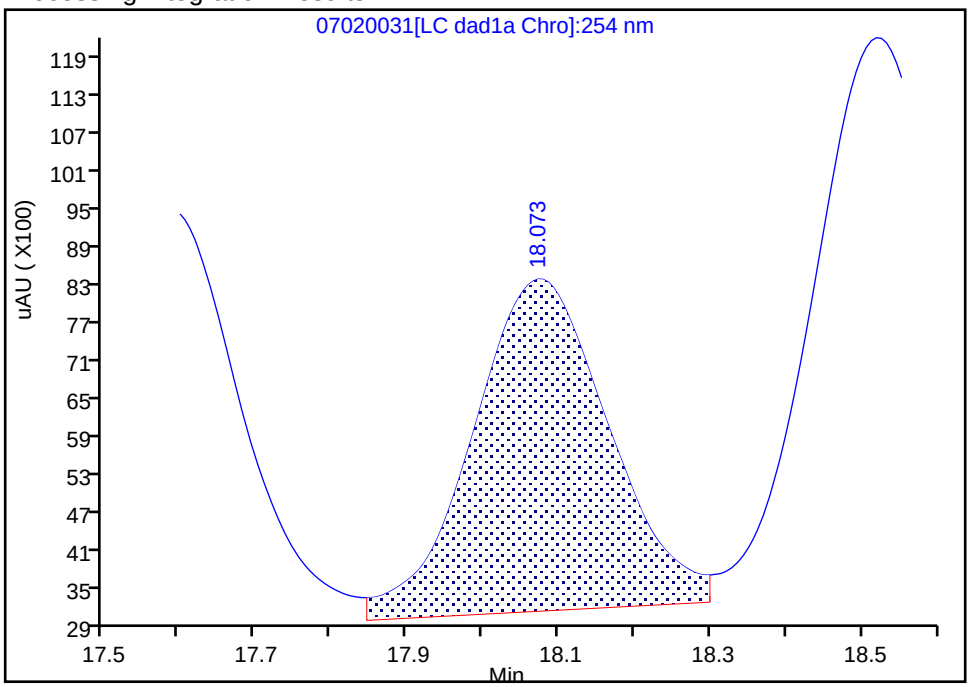
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

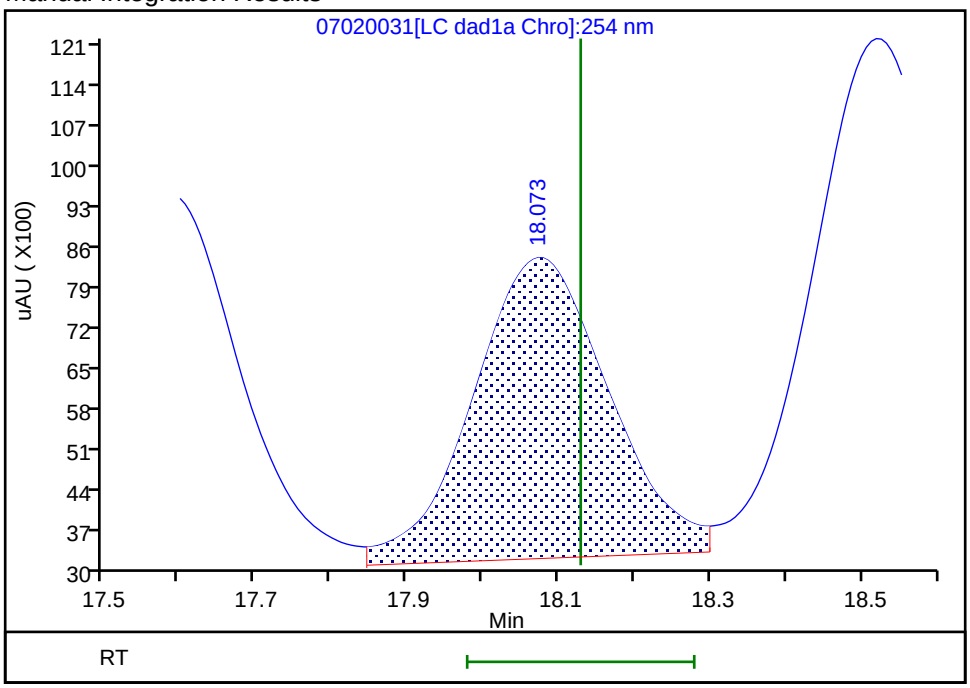
Processing Integration Results

RT: 18.07
Area: 65321
Amount: 0.218958
Amount Units: ug/ml



Manual Integration Results

RT: 18.07
Area: 65103
Amount: 0.218227
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

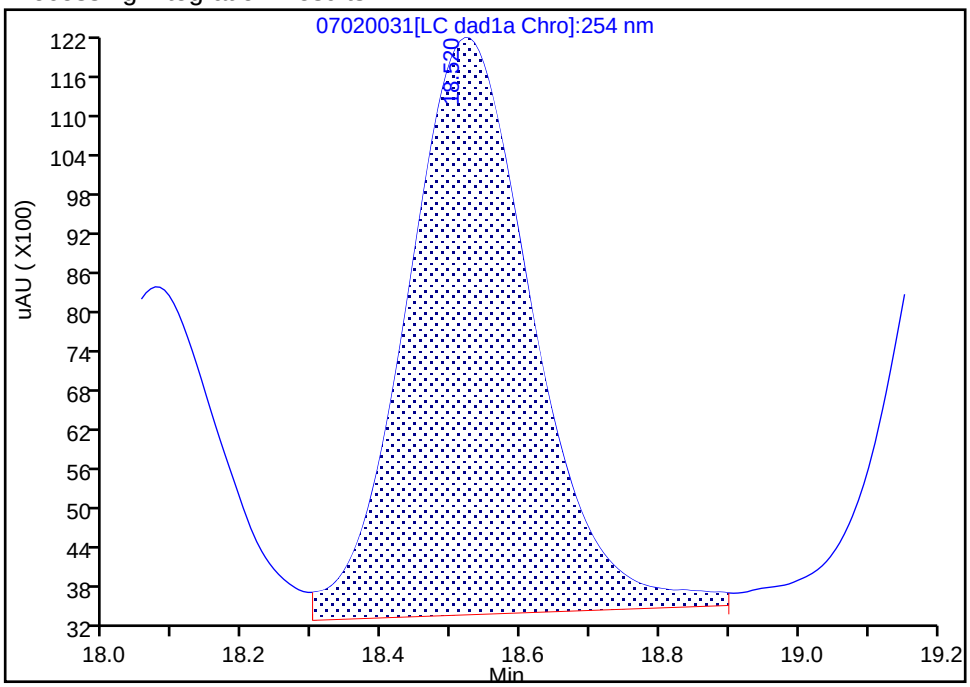
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

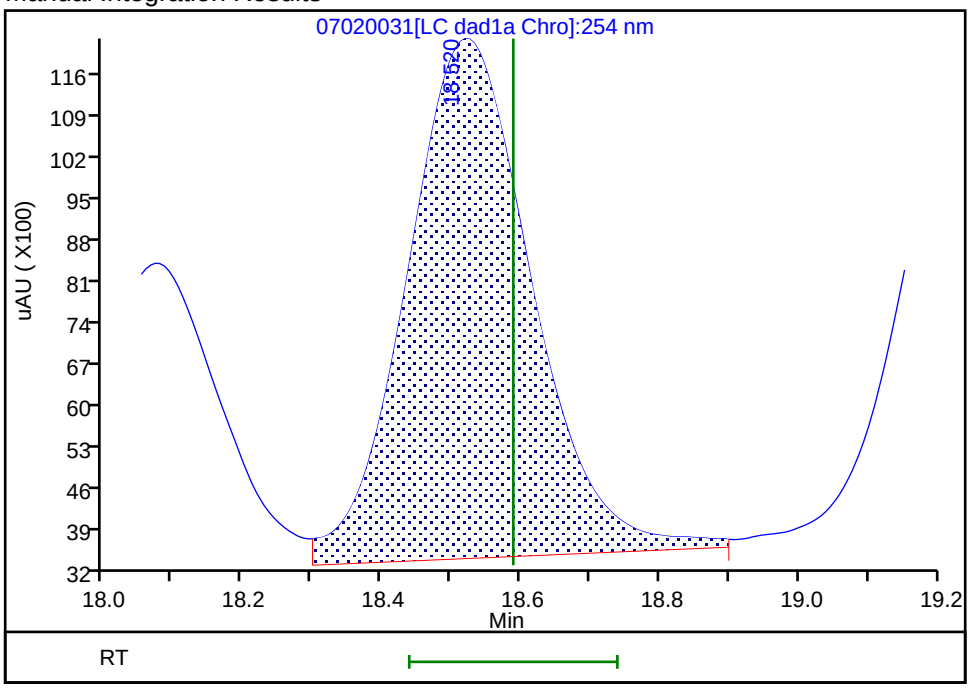
Processing Integration Results

RT: 18.52
Area: 110862
Amount: 0.238305
Amount Units: ug/ml



Manual Integration Results

RT: 18.52
Area: 110178
Amount: 0.236834
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

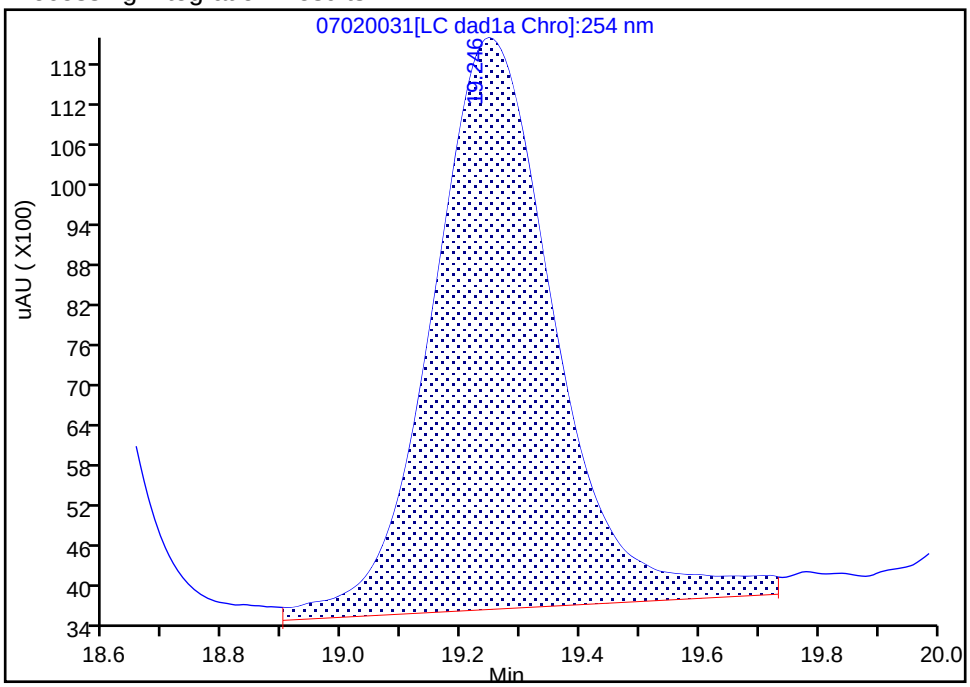
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

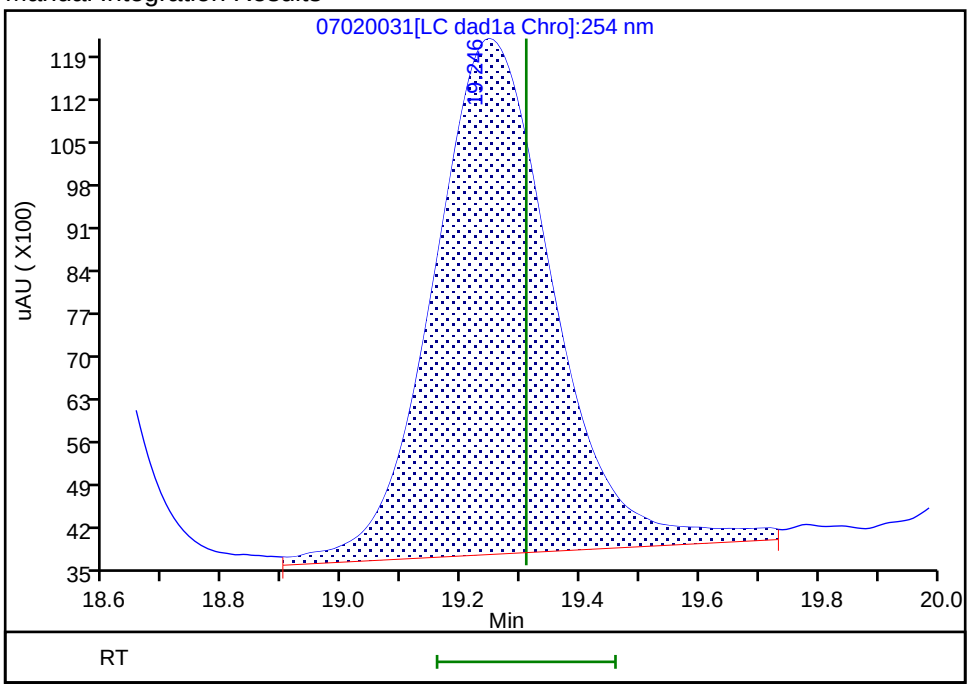
Processing Integration Results

RT: 19.25
Area: 122790
Amount: 0.259900
Amount Units: ug/ml



Manual Integration Results

RT: 19.25
Area: 119115
Amount: 0.252122
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

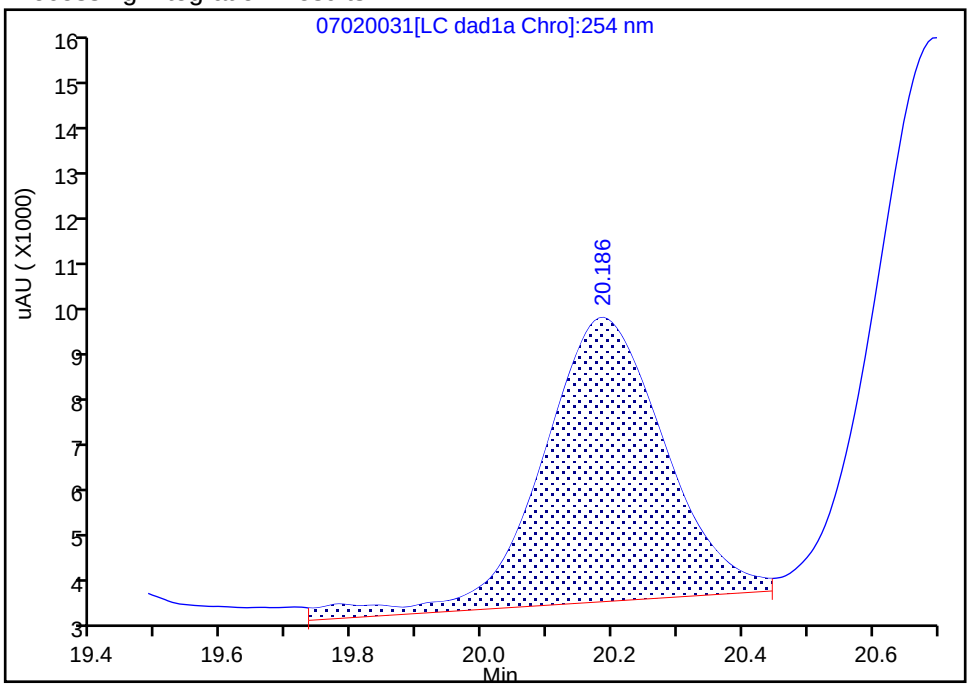
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

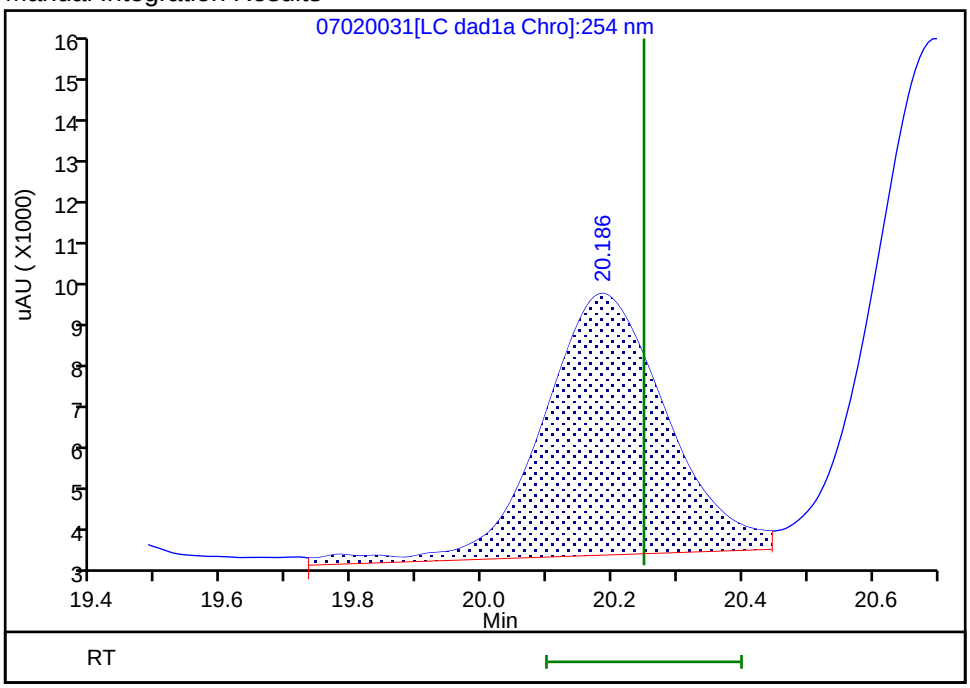
Processing Integration Results

RT: 20.19
Area: 77682
Amount: 0.253255
Amount Units: ug/ml



Manual Integration Results

RT: 20.19
Area: 79159
Amount: 0.258362
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

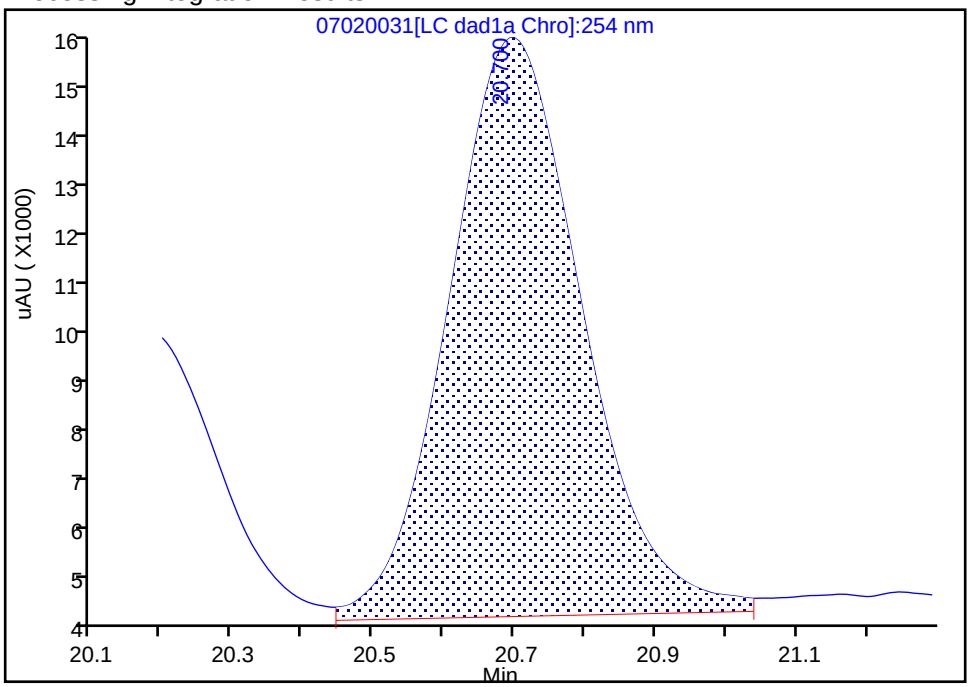
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

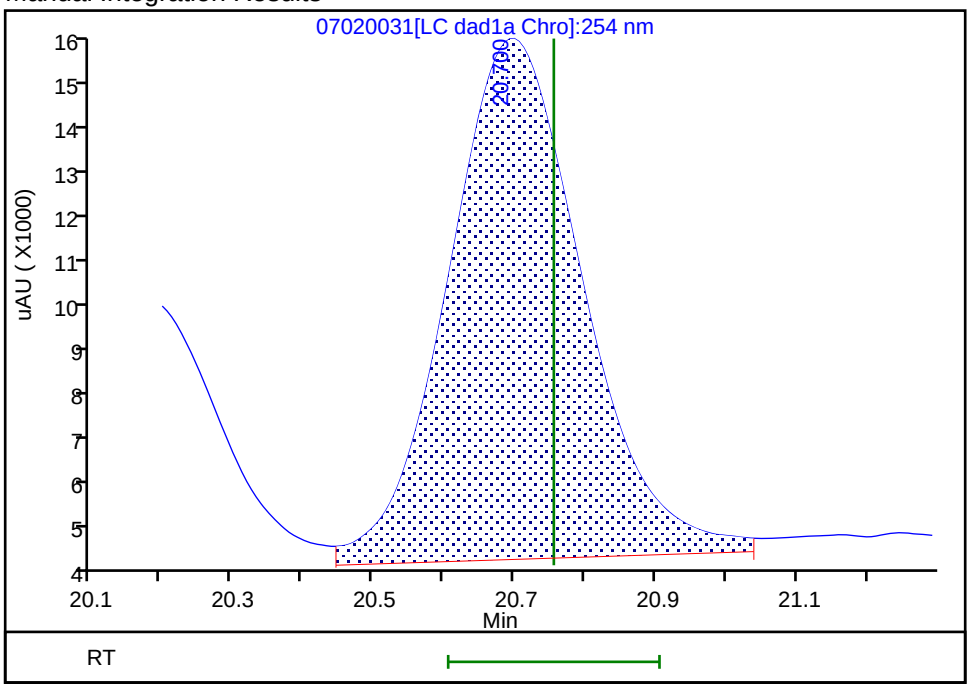
Processing Integration Results

RT: 20.70
Area: 149761
Amount: 0.233960
Amount Units: ug/ml



Manual Integration Results

RT: 20.70
Area: 153179
Amount: 0.239300
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:50:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

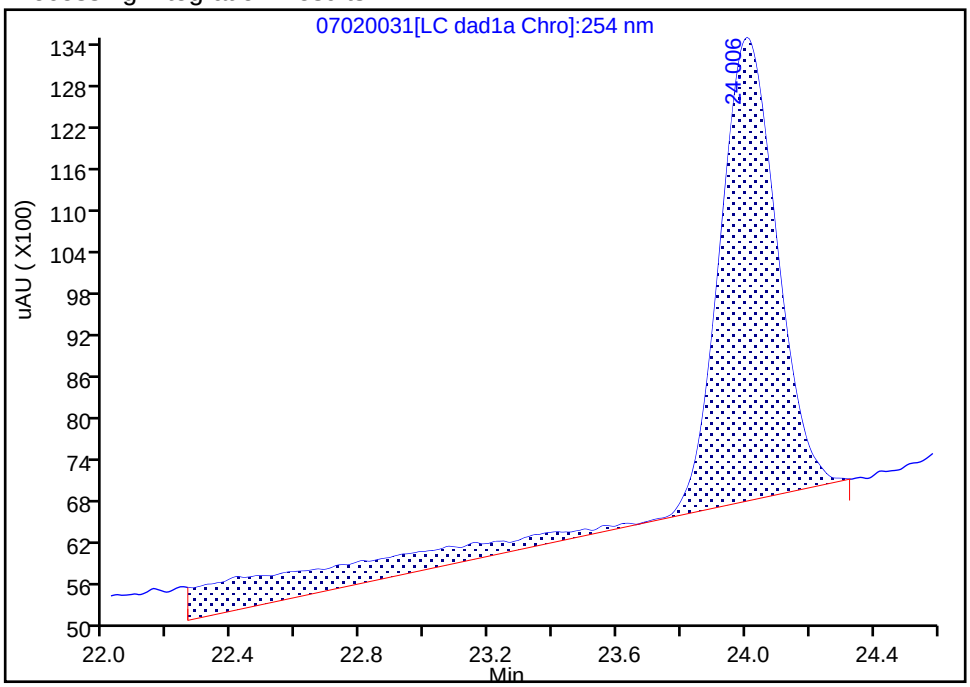
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020031.d				
Injection Date:	03-Jul-2020 09:43:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8

Signal: 1

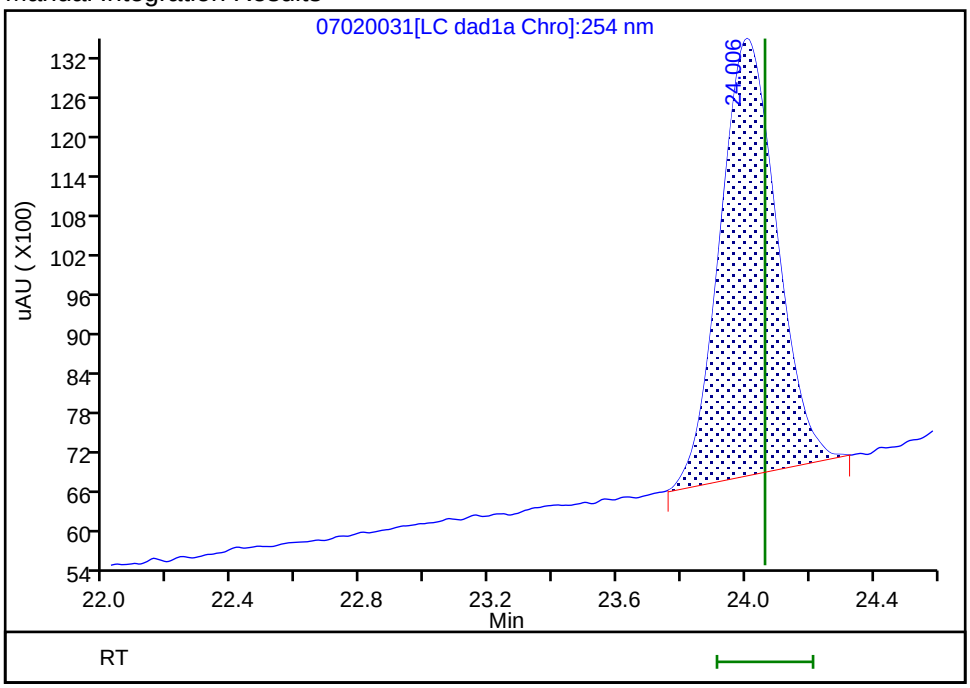
Processing Integration Results

RT: 24.01
Area: 103819
Amount: 0.281598
Amount Units: ug/ml



Manual Integration Results

RT: 24.01
Area: 82006
Amount: 0.222433
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 10:49:50

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/32 Calibration Date: 07/03/2020 10:18

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 07020032.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	403948		232	250	-7.3	15.0
DNX	Ave	321206	302206		235	250	-5.9	15.0
MNX	Lin2		291236		298	292	2.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/32 Calibration Date: 07/03/2020 10:18

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 07020032.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.56	5.43	5.73
DNX	6.41	6.29	6.59
MNX	7.98	7.87	8.17

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020032.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-Jul-2020 10:18:48	ALS Bottle#:	8	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092991-032				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 13:20:44	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1025				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.560	5.578	-0.018	101088	0.2503	0.2320	
4 DNX	1	6.414	6.438	-0.024	75627	0.2503	0.2354	
7 MNX	1	7.980	8.018	-0.038	84968	0.2918	0.2981	

Reagents:

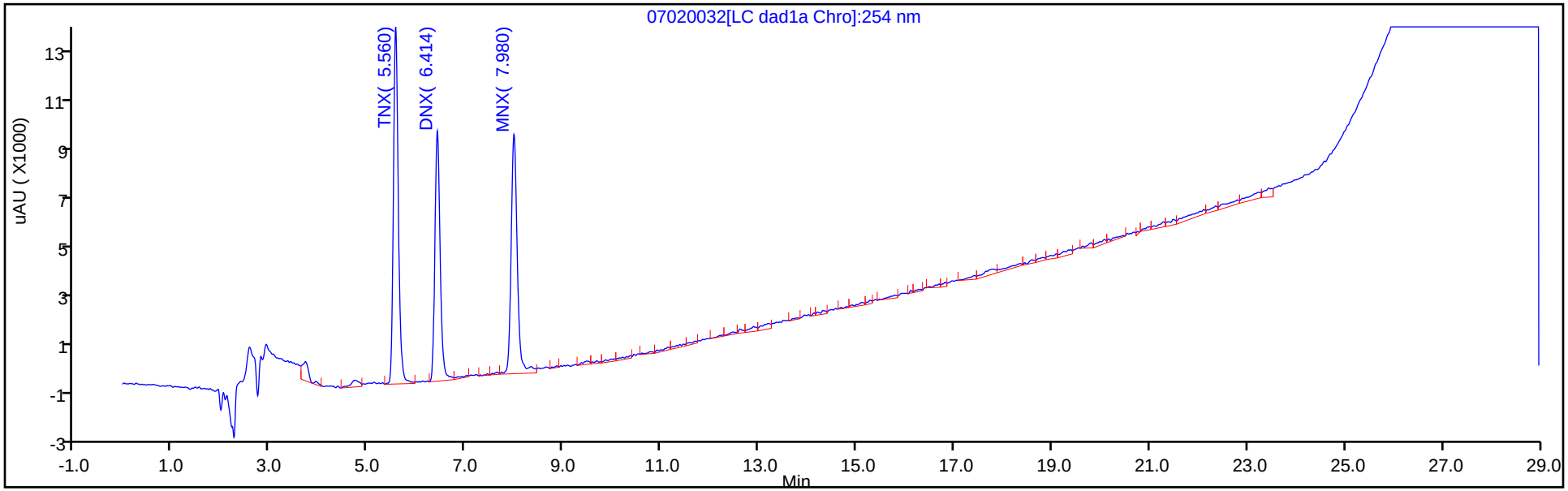
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 03-Jul-2020 13:20:45 Chrom Revision: 2.3 21-Jun-2020 18:30:46

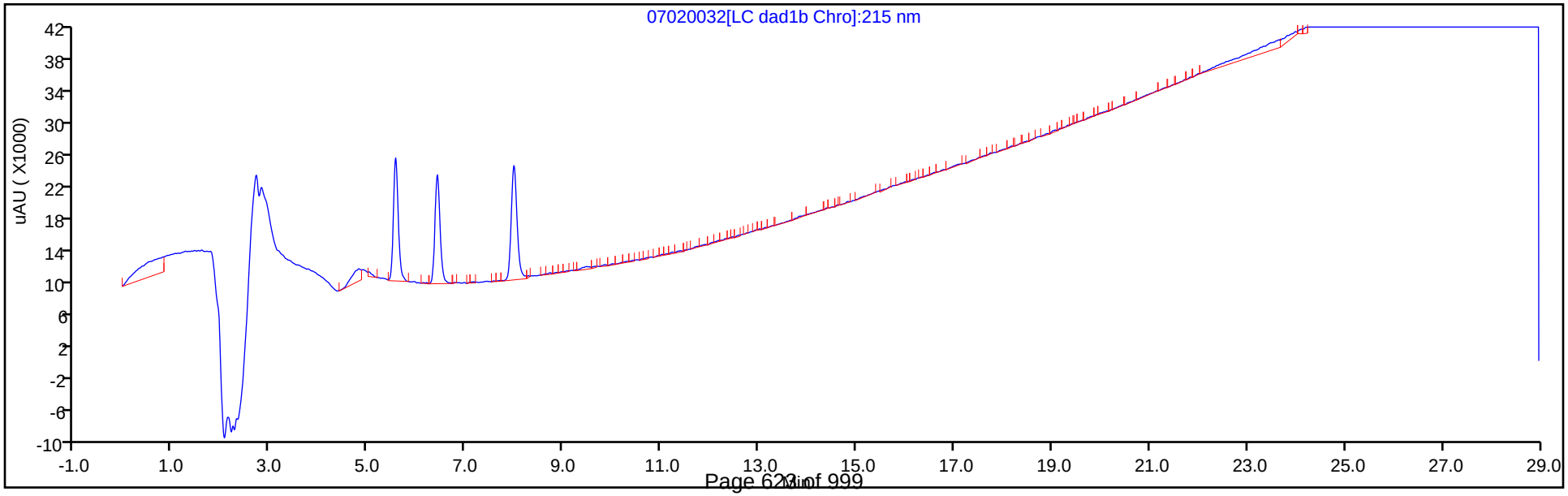
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020032.d				
Injection Date:	03-Jul-2020 10:18:48	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	32
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/40 Calibration Date: 07/03/2020 14:58

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 07020040.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	399692		230	250	-8.3	15.0
DNX	Ave	321206	303077		236	250	-5.6	15.0
MNX	Lin2		266670		271	292	-7.0	15.0

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/40 Calibration Date: 07/03/2020 14:58

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 07020040.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.58	5.43	5.73
DNX	6.44	6.29	6.59
MNX	8.01	7.87	8.17

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\07020040.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-Jul-2020 14:58:37	ALS Bottle#:	8	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092991-040				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 16:10:45	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 15:33:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.583	5.578	0.005	100023	0.2503	0.2295	
4 DNX	1	6.436	6.438	-0.002	75845	0.2503	0.2361	
7 MNX	1	8.009	8.018	-0.009	77801	0.2918	0.2712	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

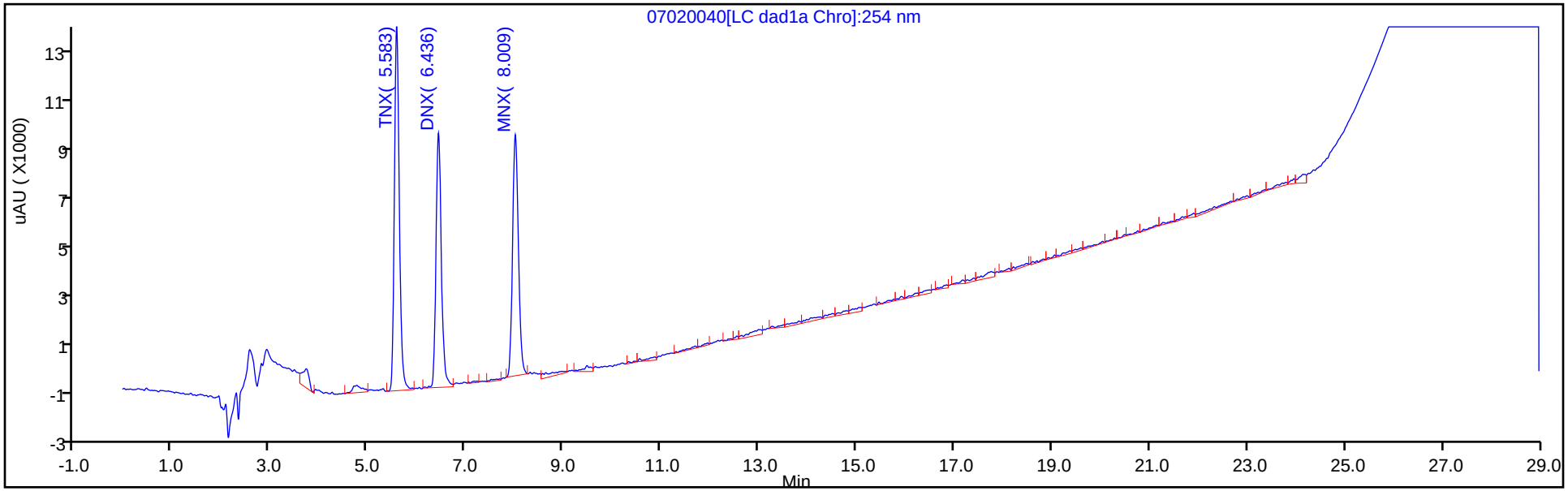
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 03-Jul-2020 16:10:46 Chrom Revision: 2.3 21-Jun-2020 18:30:46

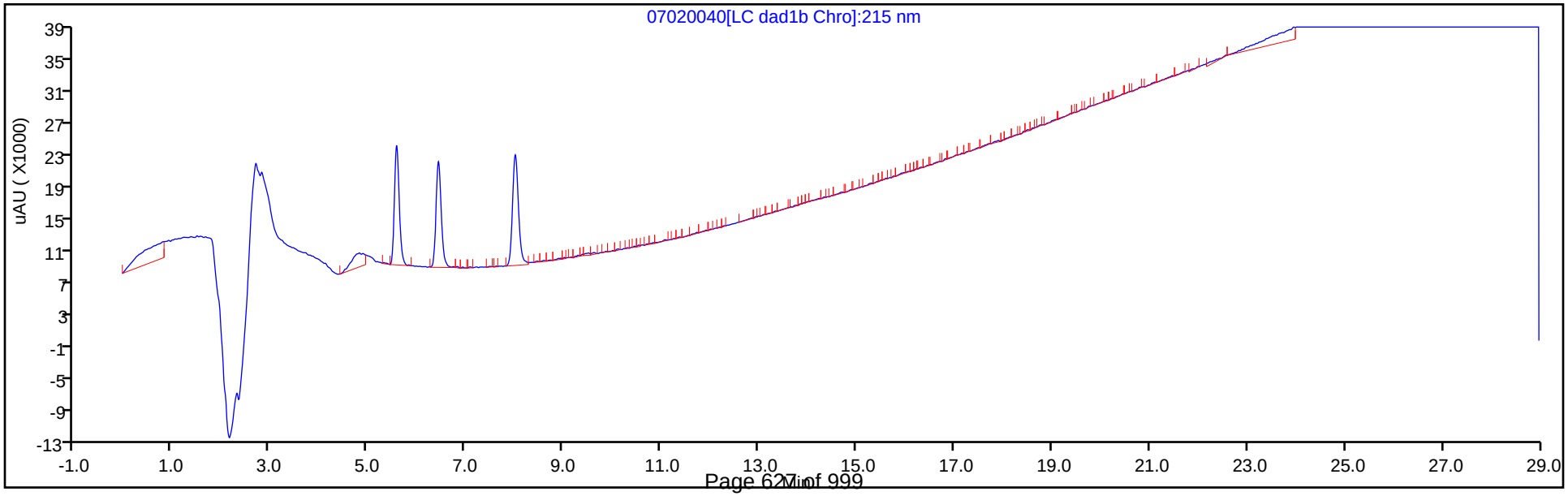
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020040.d				
Injection Date:	03-Jul-2020 14:58:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	40
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

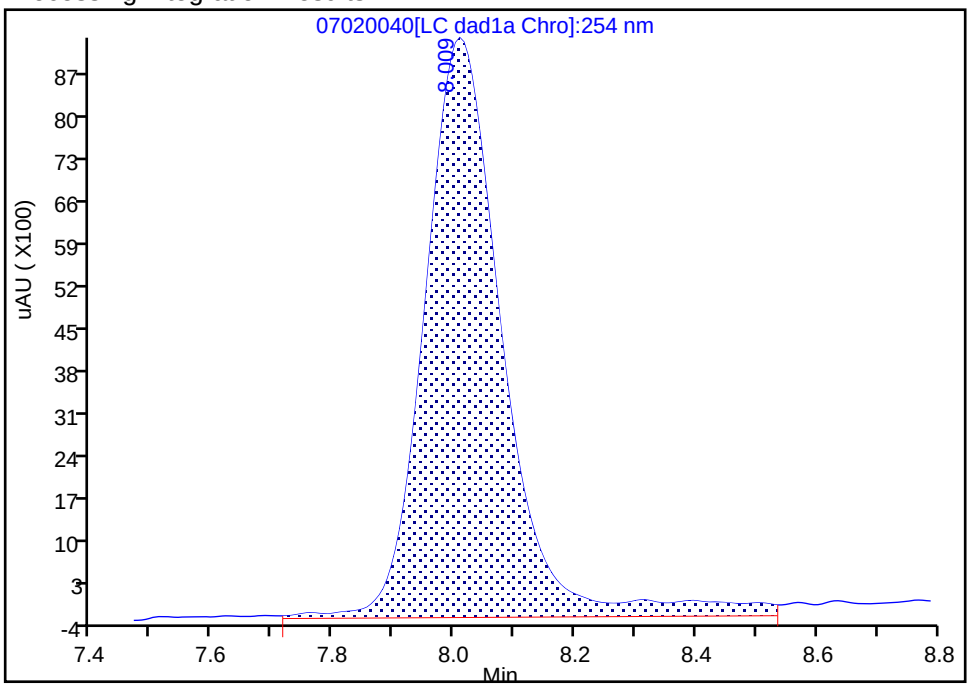
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\07020040.d				
Injection Date:	03-Jul-2020 14:58:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	8	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

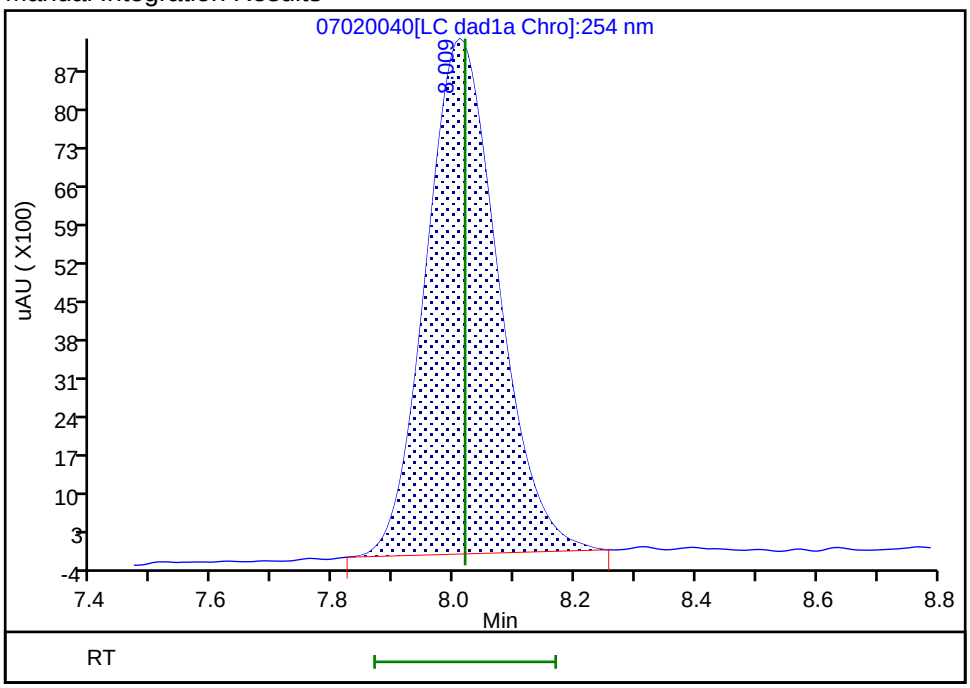
Processing Integration Results

RT: 8.01
Area: 86414
Amount: 0.303509
Amount Units: ug/ml



Manual Integration Results

RT: 8.01
Area: 77801
Amount: 0.271238
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 15:33:12

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/39 Calibration Date: 07/03/2020 15:33

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 007-3901.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		190772		239	250	-4.3	15.0
Picric acid	Ave	193810	191788		247	250	-1.0	15.0
RDX	Ave	244360	217460		222	250	-11.0	15.0
Nitrobenzene	Ave	439227	423470		242	251	-3.6	15.0
1,3-Dinitrobenzene	Ave	674189	666627		248	251	-1.1	15.0
Nitroglycerin	Ave	126803	140544		2770	2500	10.8	15.0
2-Nitrotoluene	Ave	272965	262944		241	250	-3.7	15.0
4-Nitrotoluene	Ave	240881	243521		253	251	1.1	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	321195		233	250	-7.0	15.0
3-Nitrotoluene	Ave	298327	299109		251	250	0.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	448518		242	251	-3.6	15.0
1,3,5-Trinitrobenzene	Ave	472451	468491		248	251	-0.8	15.0
2,6-Dinitrotoluene	Lin2		303199		248	251	-1.3	15.0
2,4-Dinitrotoluene	Ave	640113	614498		241	251	-4.0	15.0
Tetryl	Ave	368678	341158		232	251	-7.5	15.0
2,4,6-Trinitrotoluene	Lin1		394801		239	251	-4.8	15.0
PETN	Lin1		141293		2520	2500	0.8	15.0
1,2-Dinitrobenzene	Lin1		284276		250	250	-0.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-501007/39 Calibration Date: 07/03/2020 15:33

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 007-3901.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	7.23	7.10	7.40
Picric acid	8.33	8.35	8.65
RDX	9.46	9.33	9.63
Nitrobenzene	12.40	12.26	12.56
1,3-Dinitrobenzene	15.94	15.81	16.11
Nitroglycerin	16.18	16.05	16.35
2-Nitrotoluene	16.90	16.77	17.07
4-Nitrotoluene	17.18	17.05	17.35
4-Amino-2,6-dinitrotoluene	17.63	17.50	17.80
3-Nitrotoluene	18.12	17.98	18.28
2-Amino-4,6-dinitrotoluene	18.56	18.44	18.74
1,3,5-Trinitrobenzene	19.29	19.16	19.46
2,6-Dinitrotoluene	20.23	20.10	20.40
2,4-Dinitrotoluene	20.74	20.61	20.91
Tetryl	24.05	23.91	24.21
2,4,6-Trinitrotoluene	25.06	24.91	25.21
PETN	25.56	25.41	25.71
1,2-Dinitrobenzene	13.42	13.29	13.59

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\007-3901.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jul-2020 15:33:33 ALS Bottle#: 7 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0092991-039
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200702-92991.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Jul-2020 16:10:46 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1025

First Level Reviewer: zhangji Date: 03-Jul-2020 16:10:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.495	4.496	-0.001	105825	0.2500	0.2465	
2 2,4-diamino-6-nitrotoluene	1	5.062	5.056	0.006	66726	0.2500	0.2574	
6 HMX	1	7.229	7.249	-0.020	47693	0.2500	0.2394	
5 2,4,6-Trinitrophenol	1	8.329	8.502	-0.173	47947	0.2500	0.2474	a
8 RDX	1	9.462	9.476	-0.014	54365	0.2500	0.2225	
9 Nitrobenzene	1	12.395	12.409	-0.014	106291	0.2510	0.2420	M
$ 10 1,2-Dinitrobenzene	1	13.415	13.436	-0.021	71069	0.2500	0.2497	M
11 3,5-Dinitroaniline	1	15.348	15.382	-0.034	120023	0.2500	0.2417	M
12 1,3-Dinitrobenzene	1	15.942	15.962	-0.020	166990	0.2505	0.2477	M
13 Nitroglycerin	2	16.182	16.196	-0.014	351360	2.50	2.77	M
14 o-Nitrotoluene	1	16.902	16.916	-0.014	65736	0.2500	0.2408	M
15 p-Nitrotoluene	1	17.182	17.196	-0.014	61002	0.2505	0.2532	M
16 4-Amino-2,6-dinitrotoluene	1	17.628	17.649	-0.021	80379	0.2503	0.2328	M
17 m-Nitrotoluene	1	18.122	18.129	-0.007	74852	0.2503	0.2509	M
18 2-Amino-4,6-dinitrotoluene	1	18.555	18.589	-0.034	112578	0.2510	0.2420	M
19 1,3,5-Trinitrobenzene	1	19.288	19.309	-0.021	117357	0.2505	0.2484	M
20 2,6-Dinitrotoluene	1	20.228	20.249	-0.021	76103	0.2510	0.2478	M
21 2,4-Dinitrotoluene	1	20.735	20.756	-0.021	154239	0.2510	0.2410	M
22 Tetryl	1	24.049	24.062	-0.013	85460	0.2505	0.2318	
23 2,4,6-Trinitrotoluene	1	25.055	25.056	-0.001	99095	0.2510	0.2389	
24 PETN	2	25.555	25.556	-0.001	353232	2.50	2.52	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

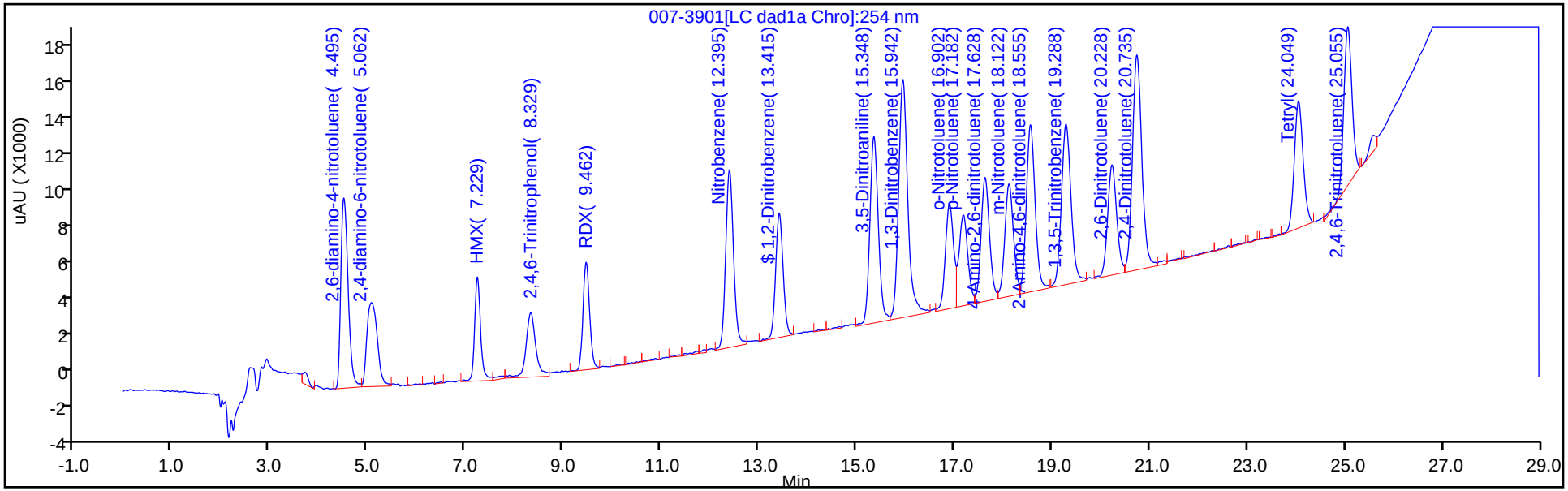
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00027	Amount Added:	12.50	Units: uL

Report Date: 03-Jul-2020 16:10:46 Chrom Revision: 2.3 21-Jun-2020 18:30:46

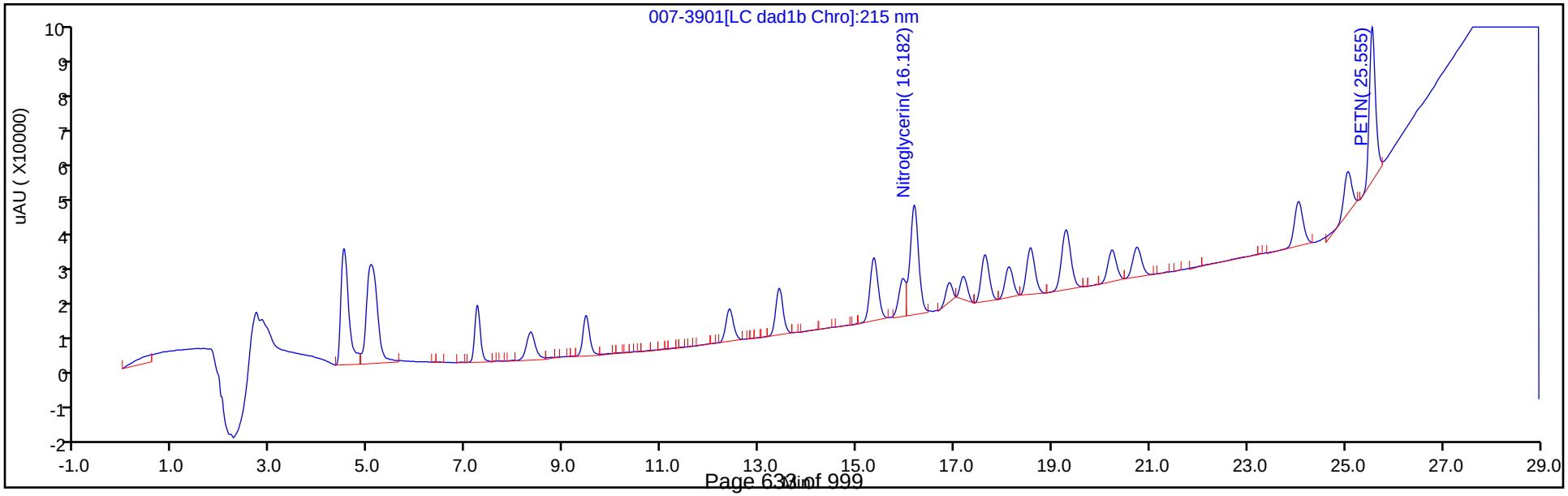
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	39
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

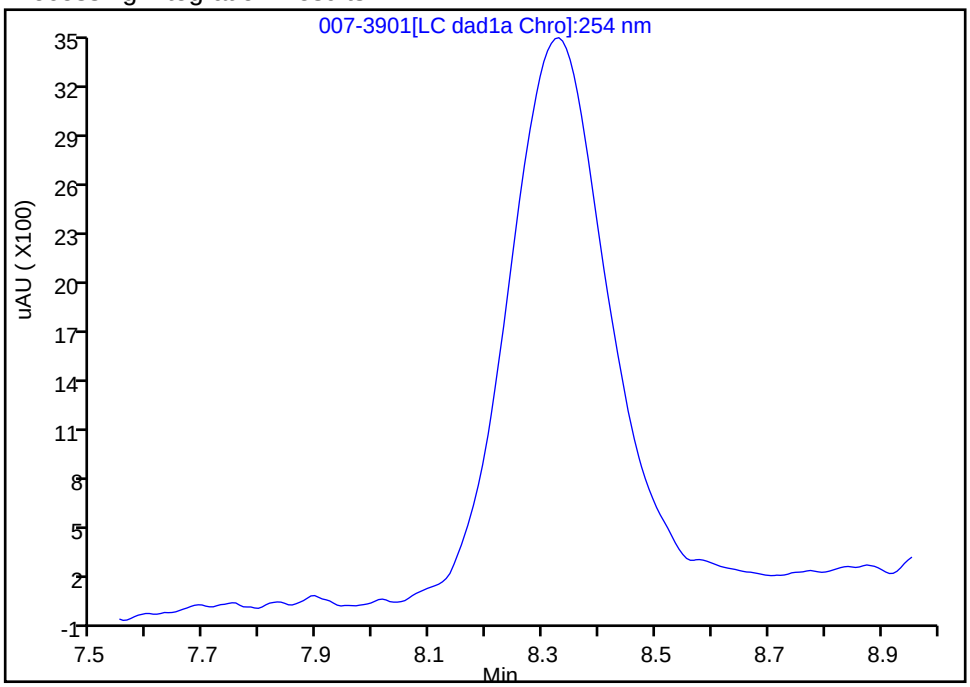
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

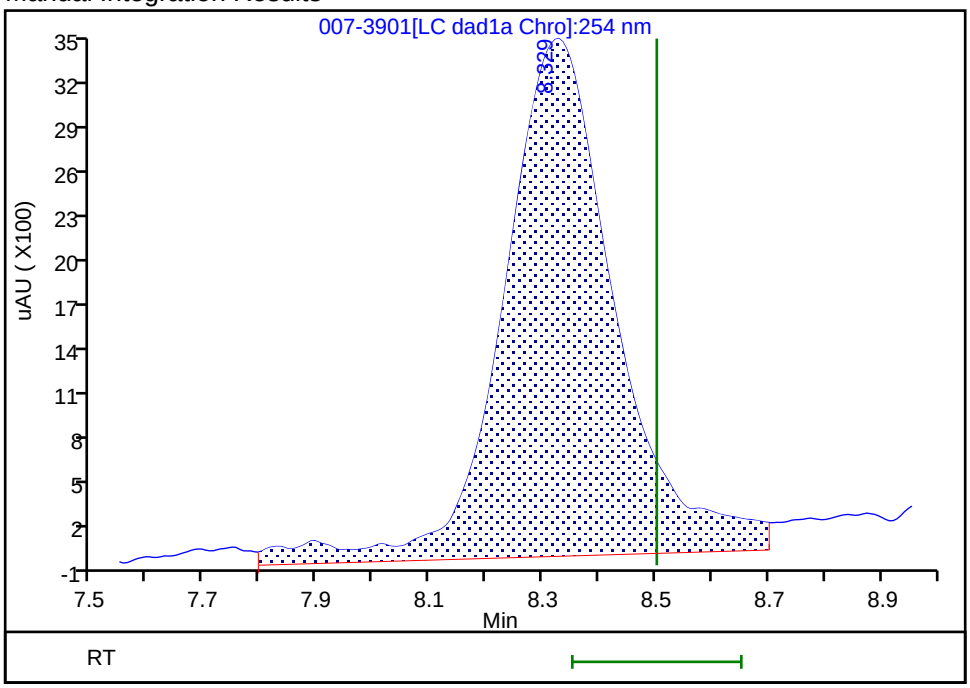
Not Detected
Expected RT: 8.50

Processing Integration Results



Manual Integration Results

RT: 8.33
Area: 47947
Amount: 0.247392
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:10
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

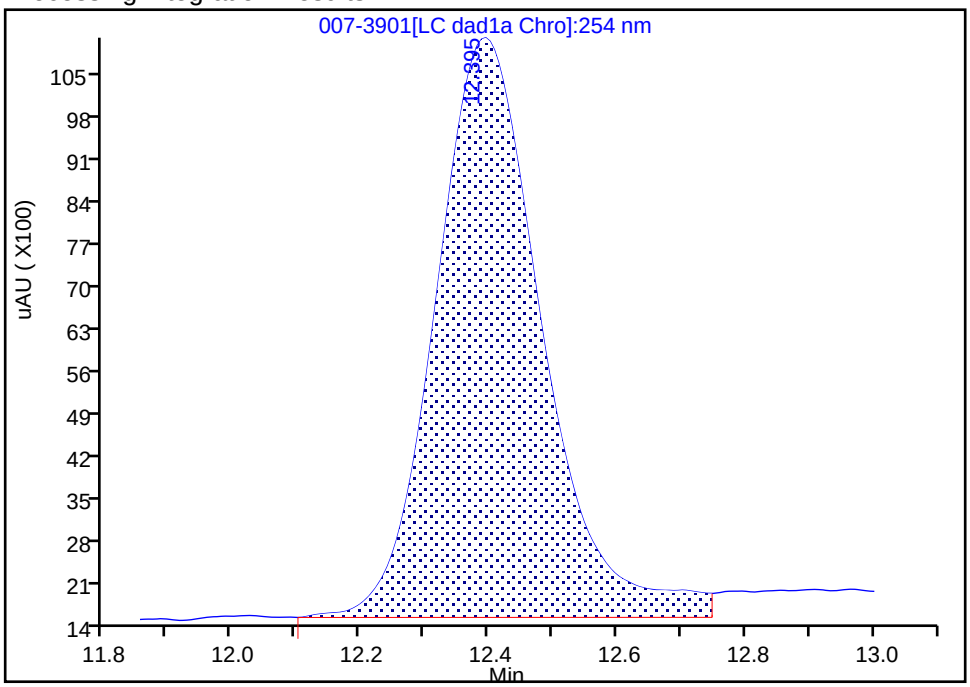
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

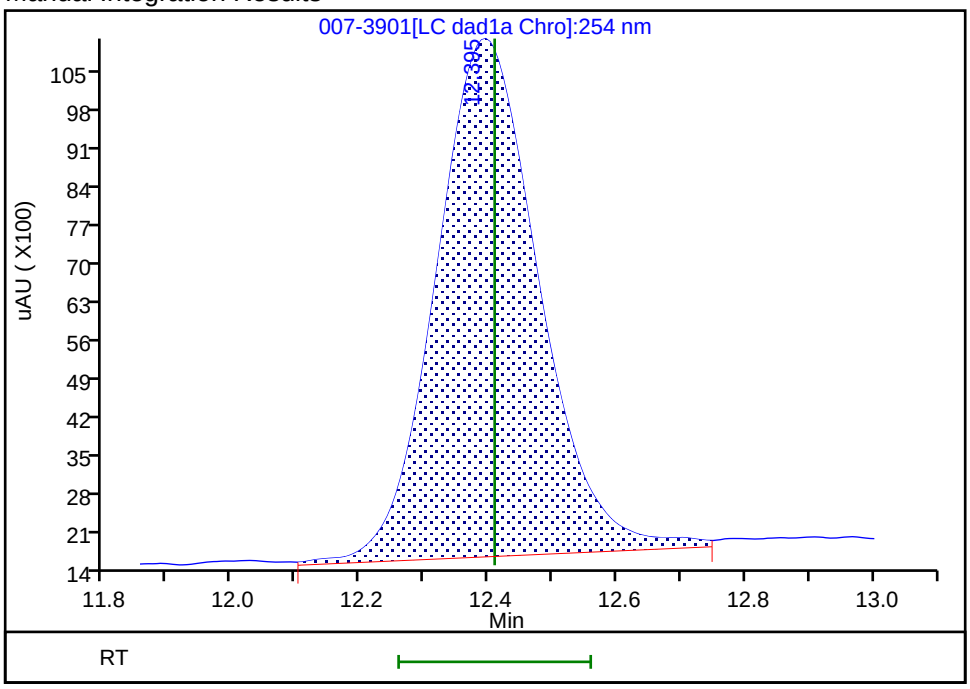
Processing Integration Results

RT: 12.40
Area: 110676
Amount: 0.251979
Amount Units: ug/ml



Manual Integration Results

RT: 12.40
Area: 106291
Amount: 0.241995
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:25
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

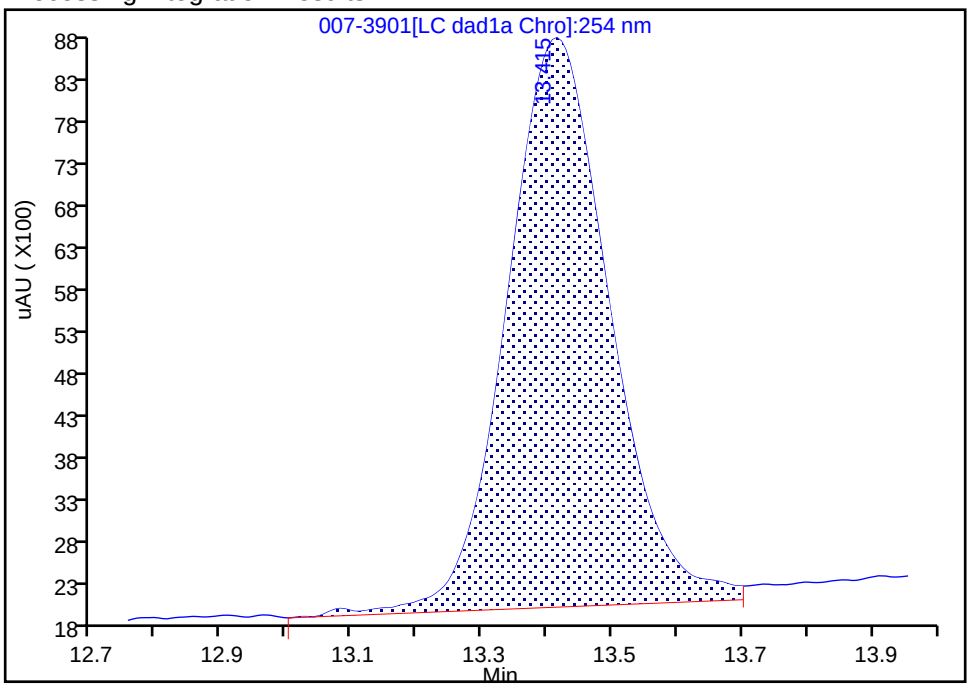
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

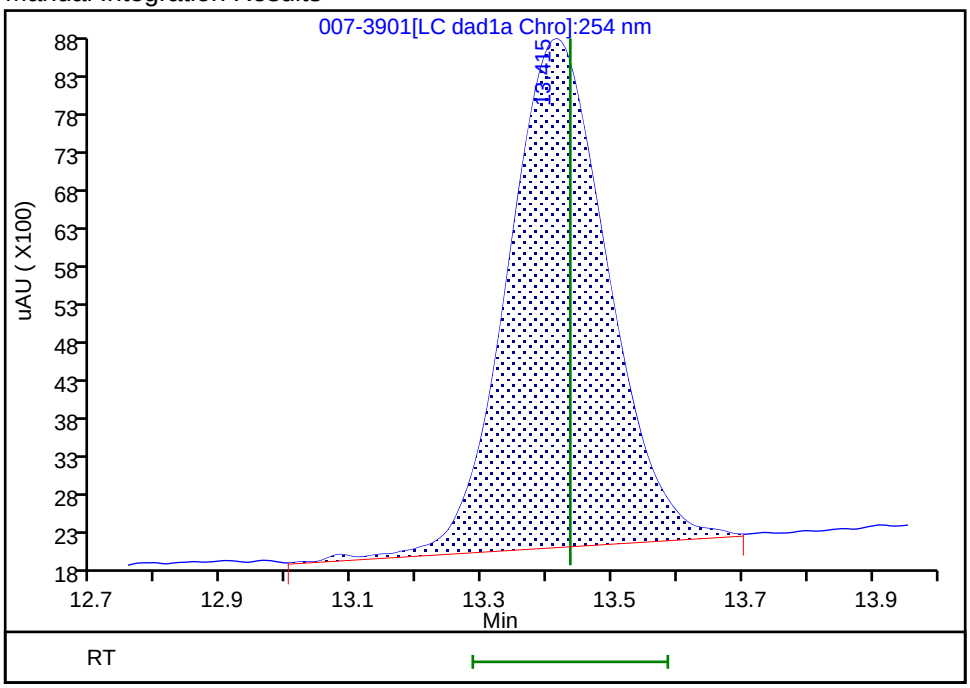
Processing Integration Results

RT: 13.42
Area: 73610
Amount: 0.258888
Amount Units: ug/ml



Manual Integration Results

RT: 13.42
Area: 71069
Amount: 0.249722
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:25
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

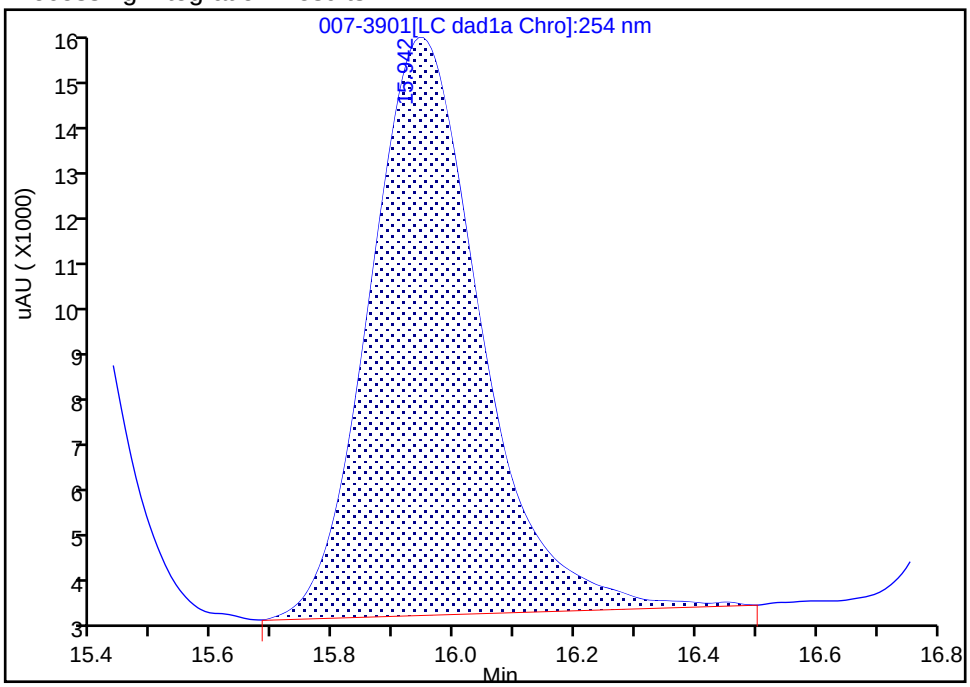
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

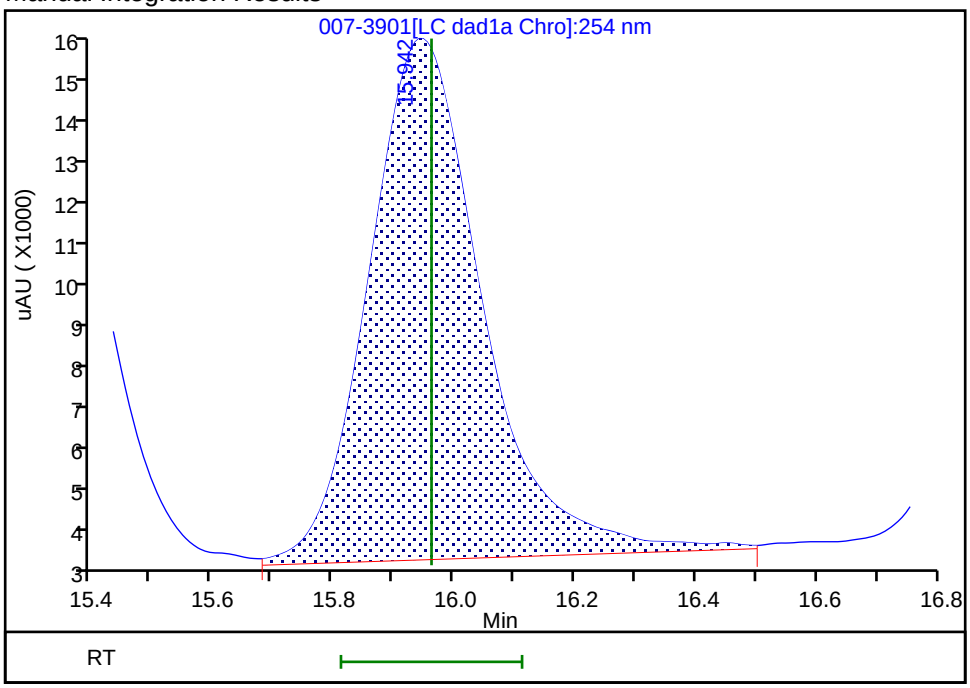
Processing Integration Results

RT: 15.94
Area: 161431
Amount: 0.239445
Amount Units: ug/ml



Manual Integration Results

RT: 15.94
Area: 166990
Amount: 0.247690
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:20
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

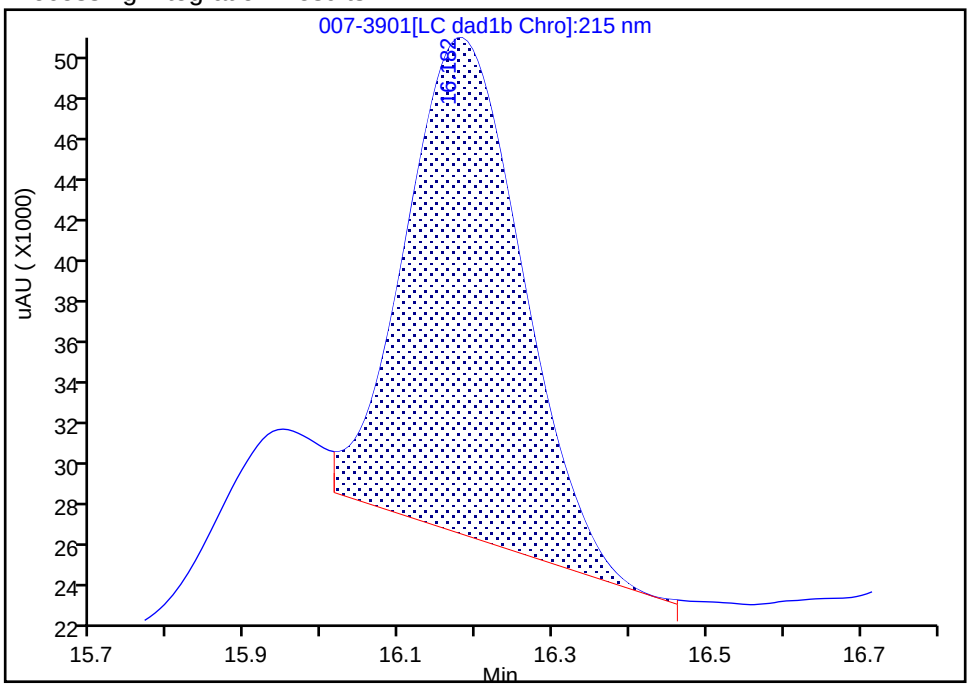
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

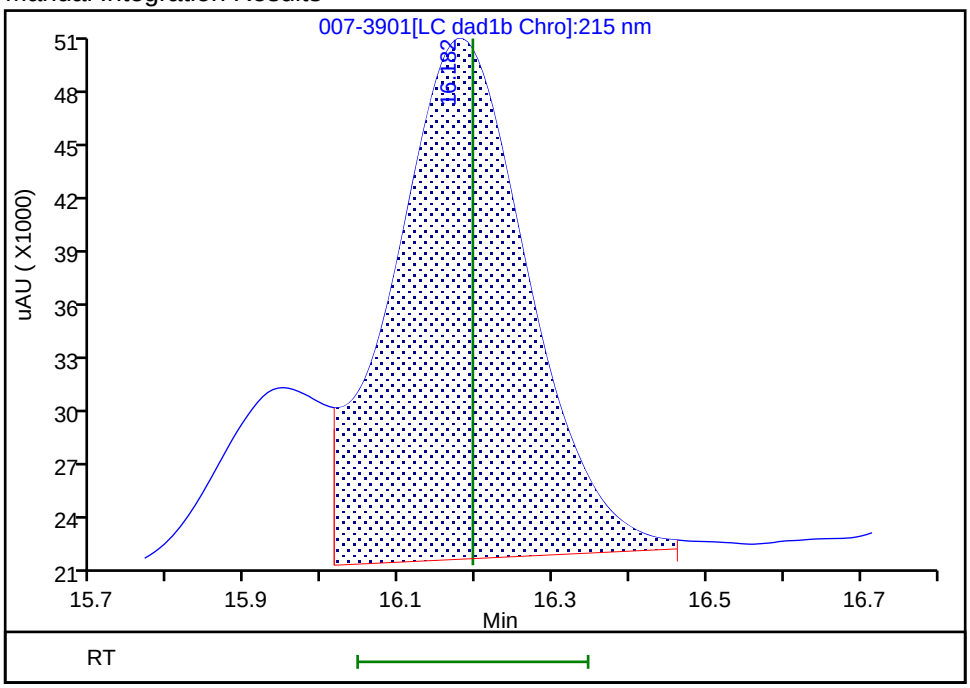
Processing Integration Results

RT: 16.18
Area: 258619
Amount: 2.039528
Amount Units: ug/ml



Manual Integration Results

RT: 16.18
Area: 351360
Amount: 2.770905
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:36
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

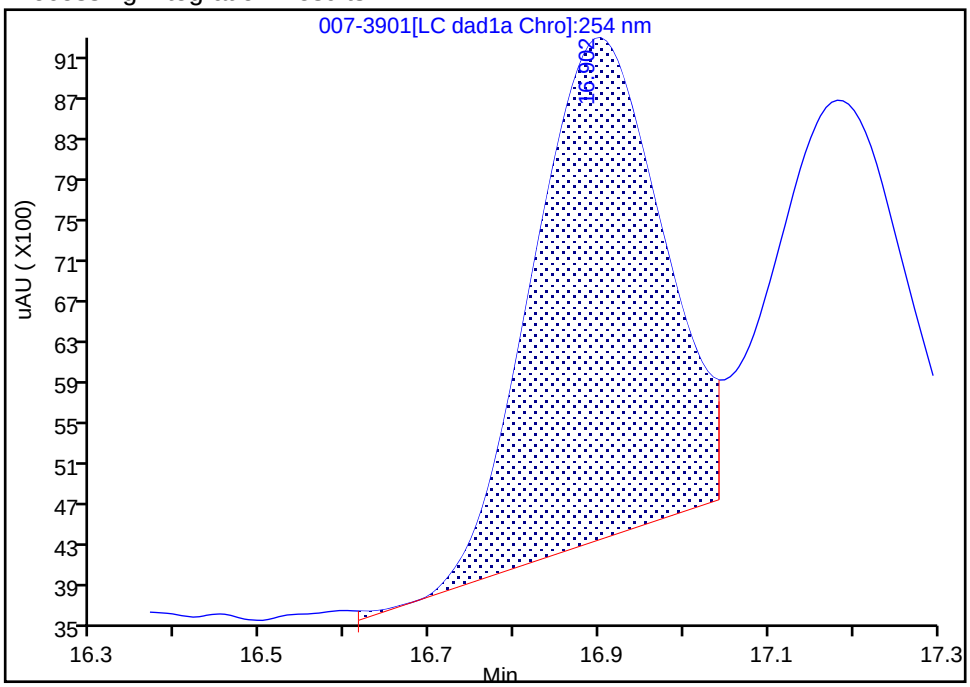
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

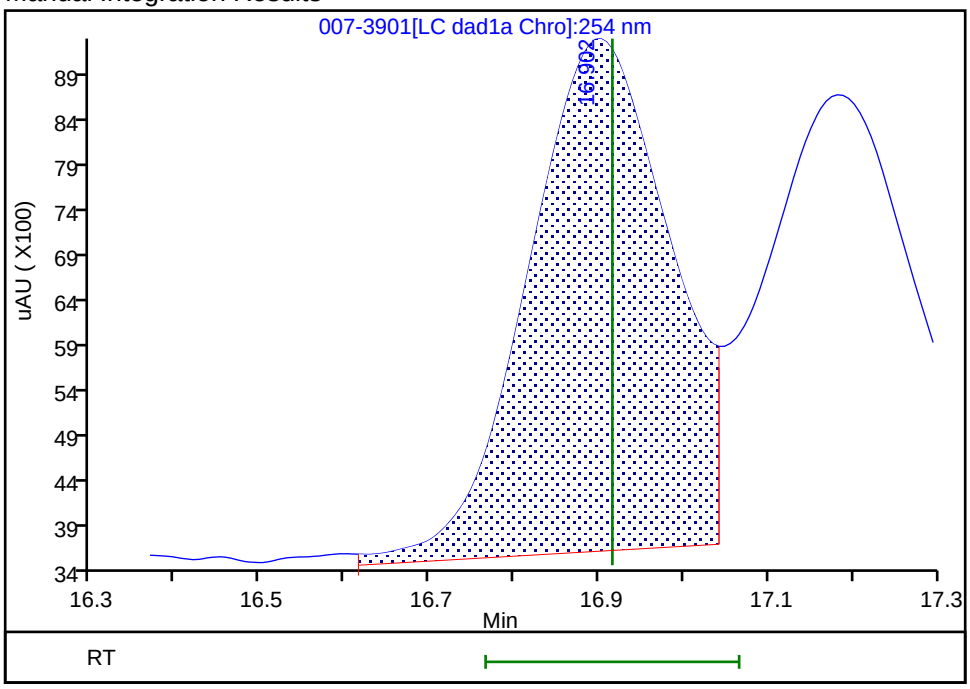
Processing Integration Results

RT: 16.90
Area: 52719
Amount: 0.193135
Amount Units: ug/ml



Manual Integration Results

RT: 16.90
Area: 65736
Amount: 0.240823
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

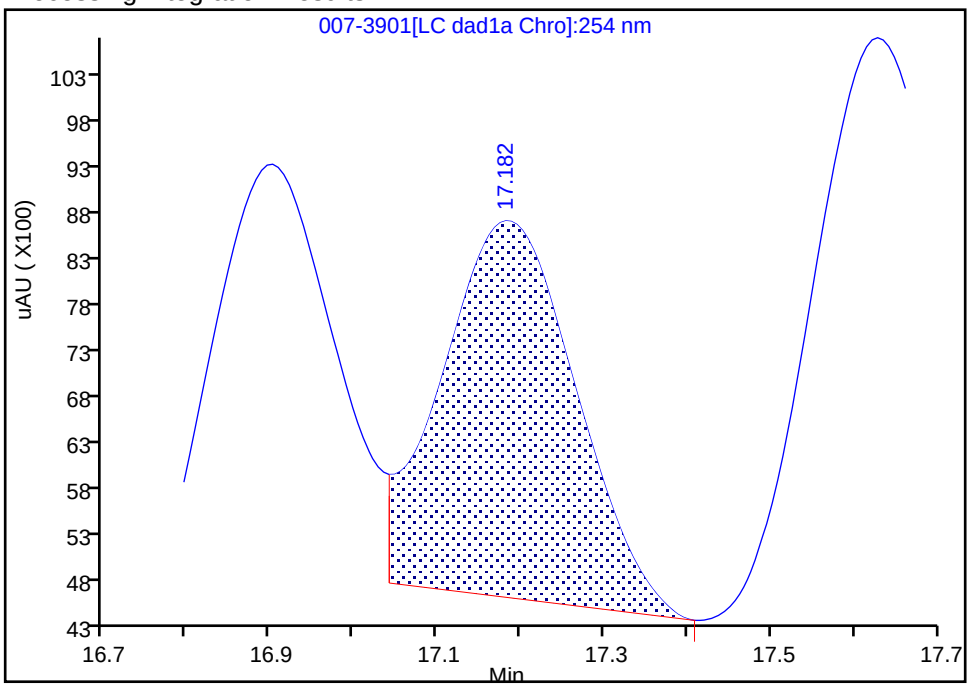
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

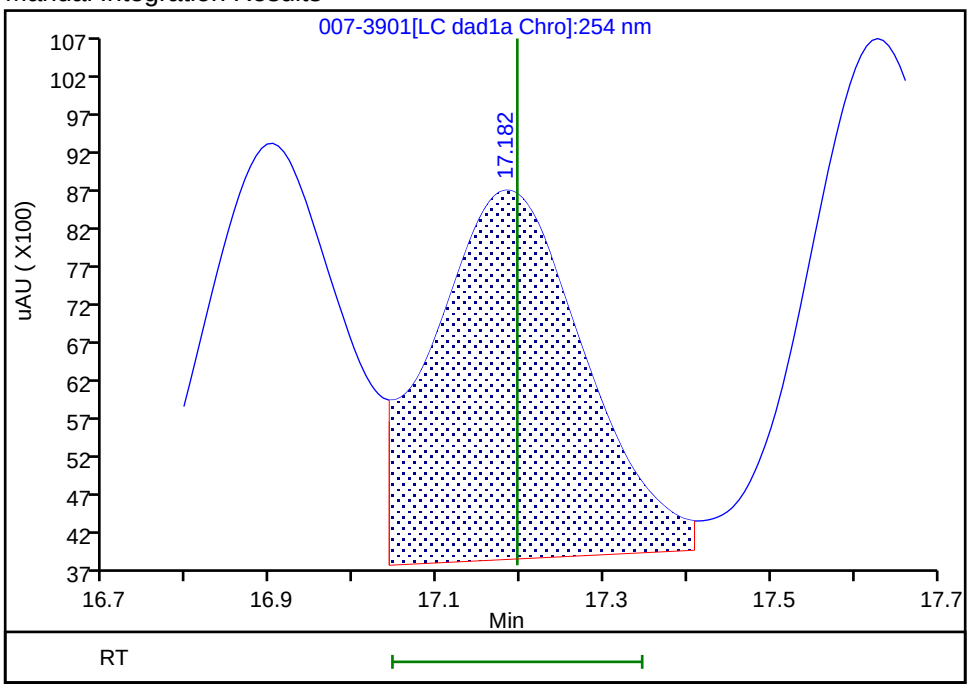
Processing Integration Results

RT: 17.18
Area: 45899
Amount: 0.190546
Amount Units: ug/ml



Manual Integration Results

RT: 17.18
Area: 61002
Amount: 0.253245
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

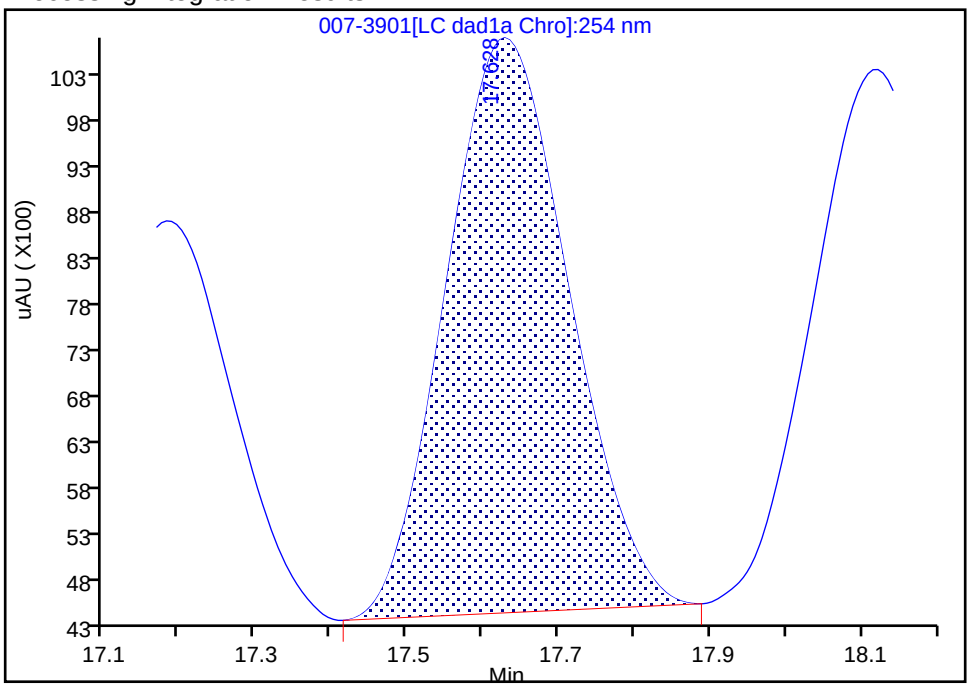
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

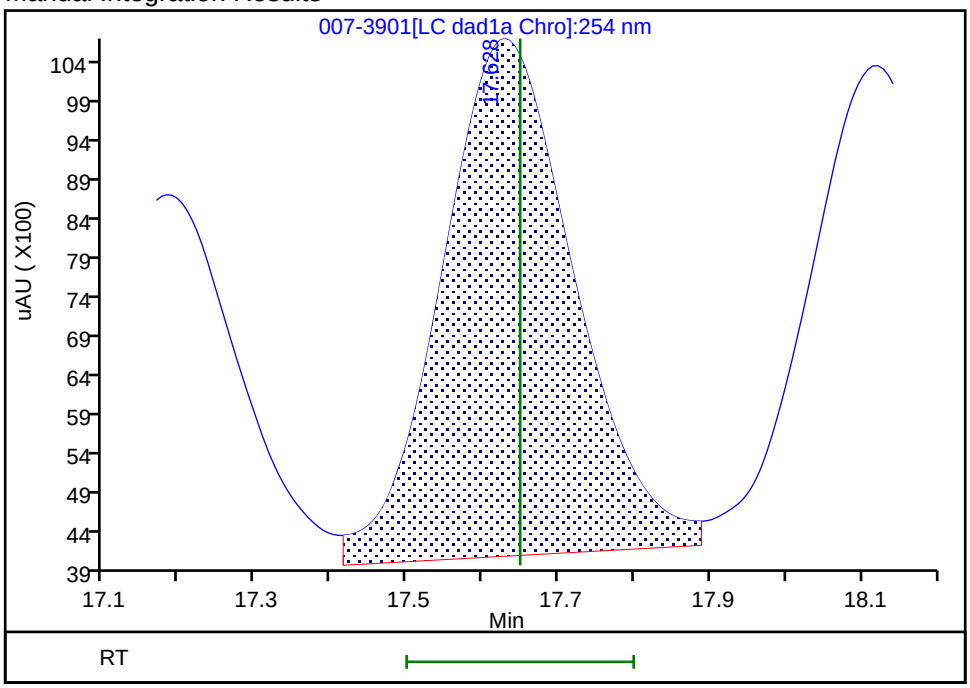
Processing Integration Results

RT: 17.63
Area: 70596
Amount: 0.204487
Amount Units: ug/ml



Manual Integration Results

RT: 17.63
Area: 80379
Amount: 0.232824
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

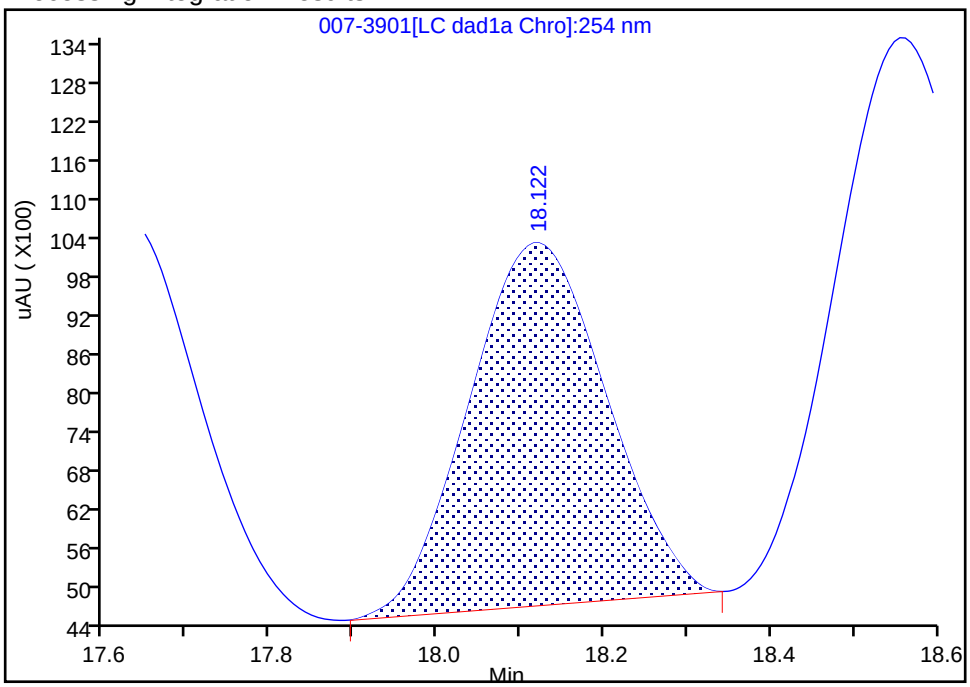
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

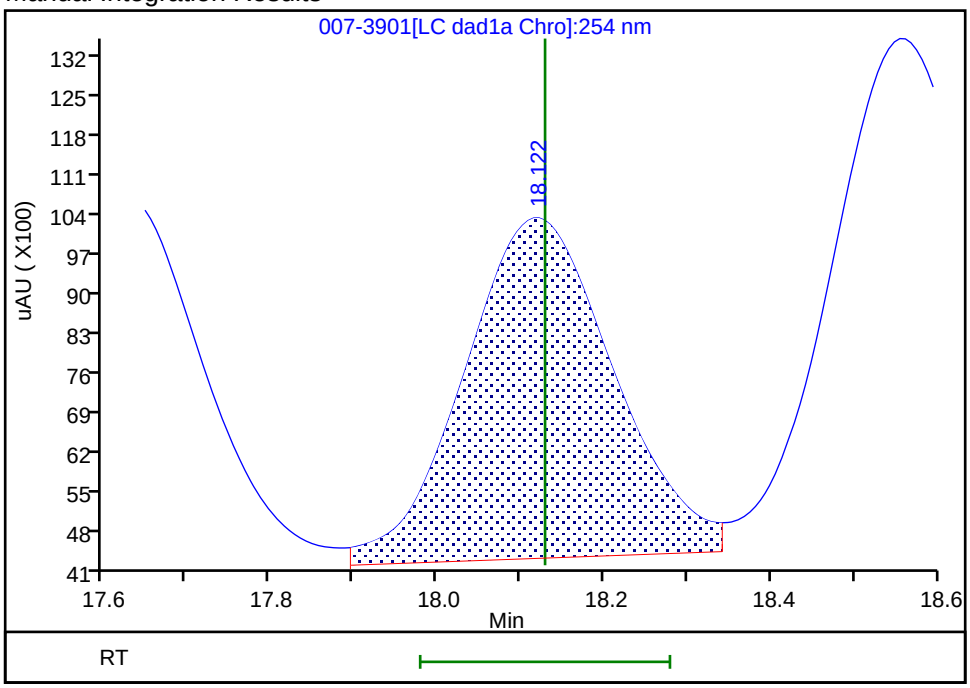
Processing Integration Results

RT: 18.12
Area: 63971
Amount: 0.214433
Amount Units: ug/ml



Manual Integration Results

RT: 18.12
Area: 74852
Amount: 0.250906
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

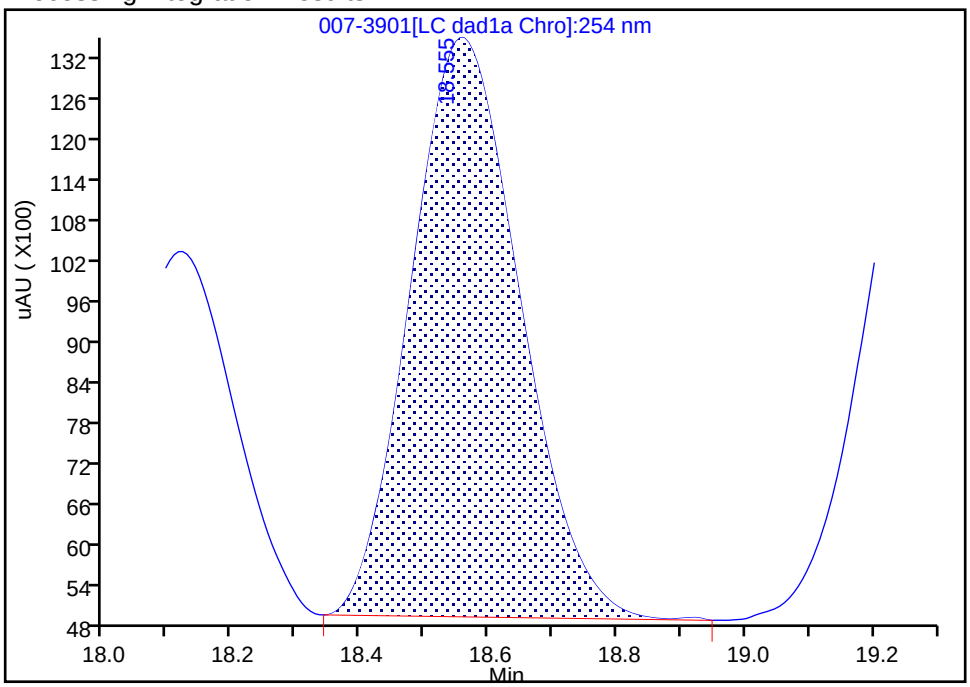
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

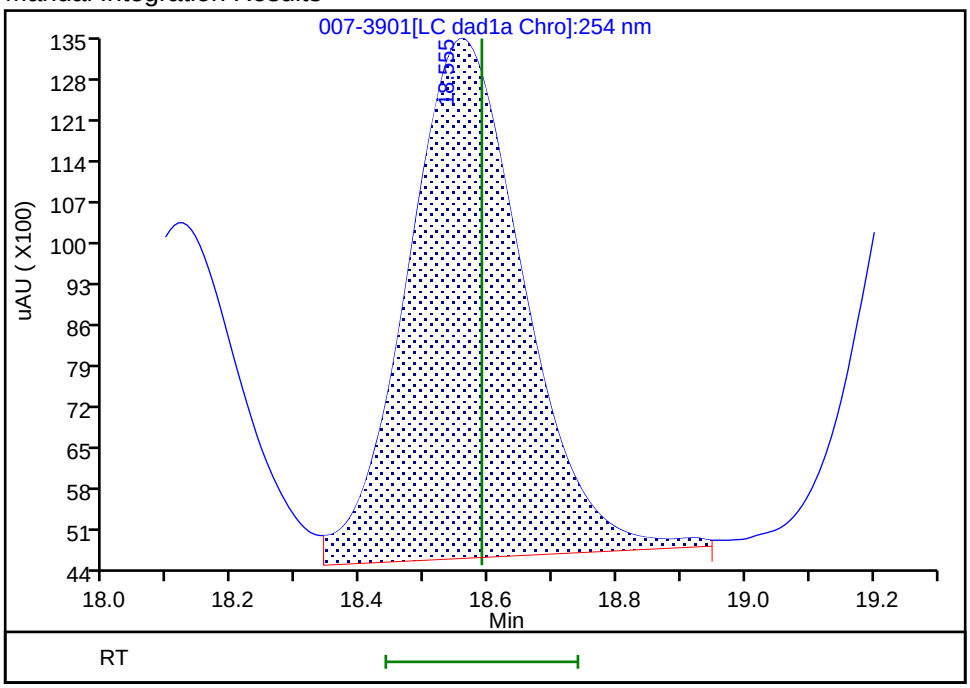
Processing Integration Results

RT: 18.56
Area: 101513
Amount: 0.218209
Amount Units: ug/ml



Manual Integration Results

RT: 18.56
Area: 112578
Amount: 0.241993
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

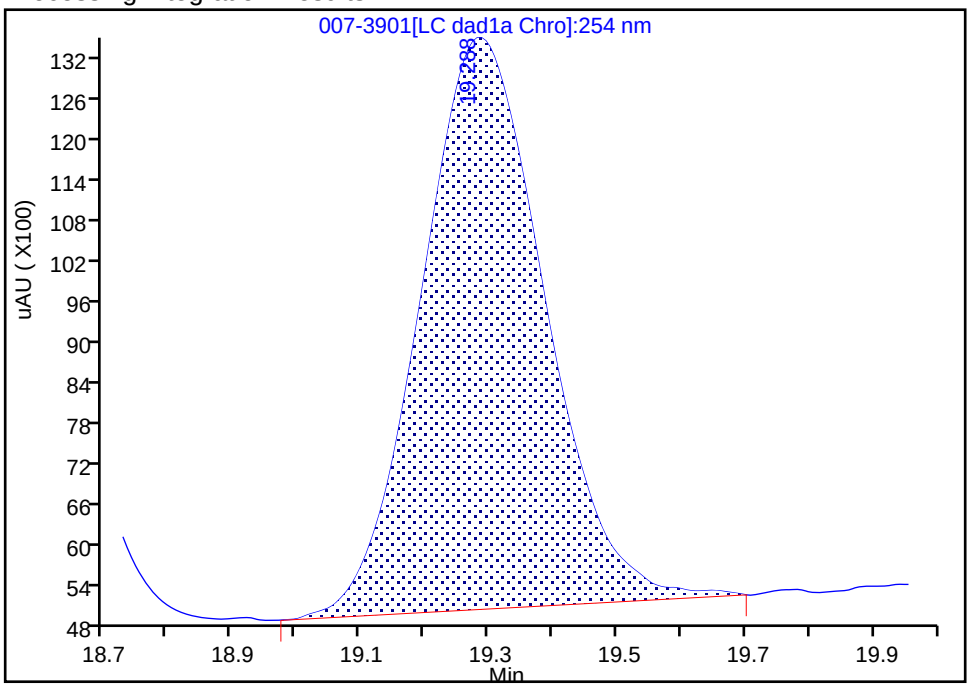
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

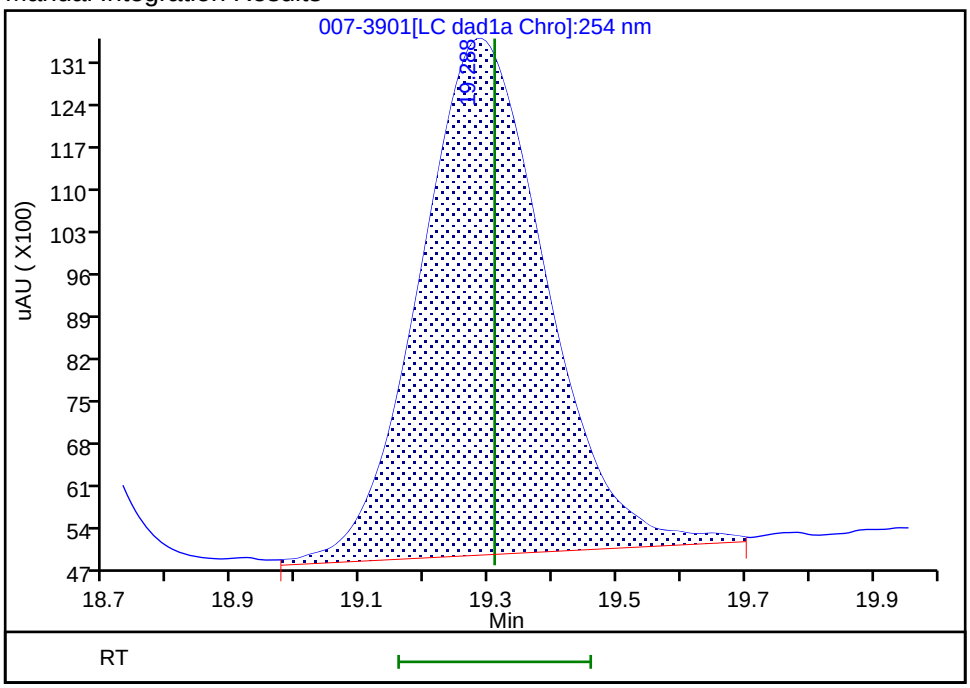
Processing Integration Results

RT: 19.29
Area: 113891
Amount: 0.241064
Amount Units: ug/ml



Manual Integration Results

RT: 19.29
Area: 117357
Amount: 0.248400
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

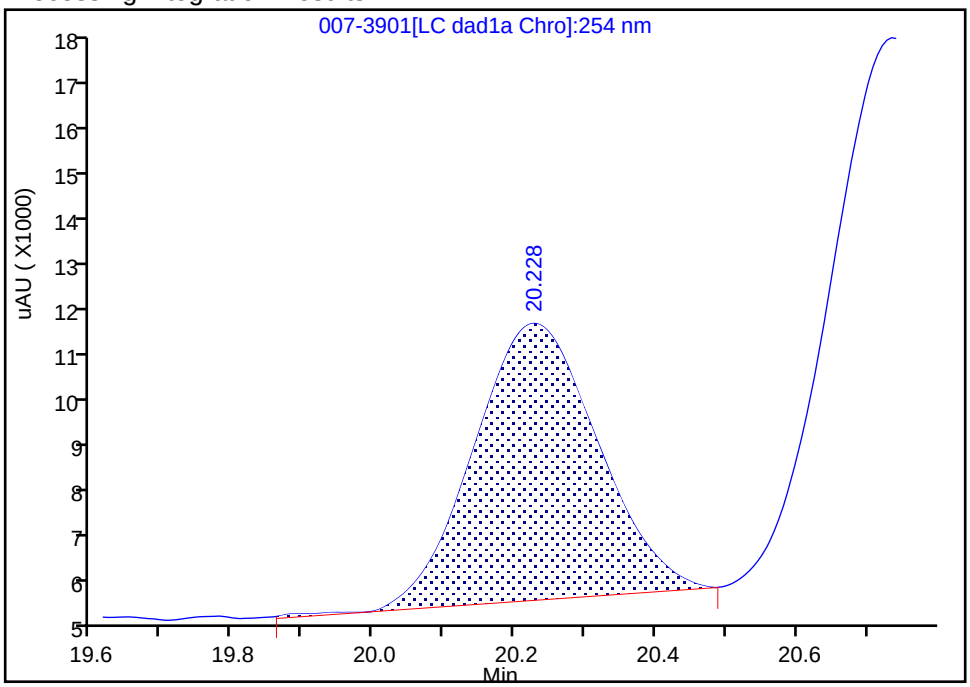
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

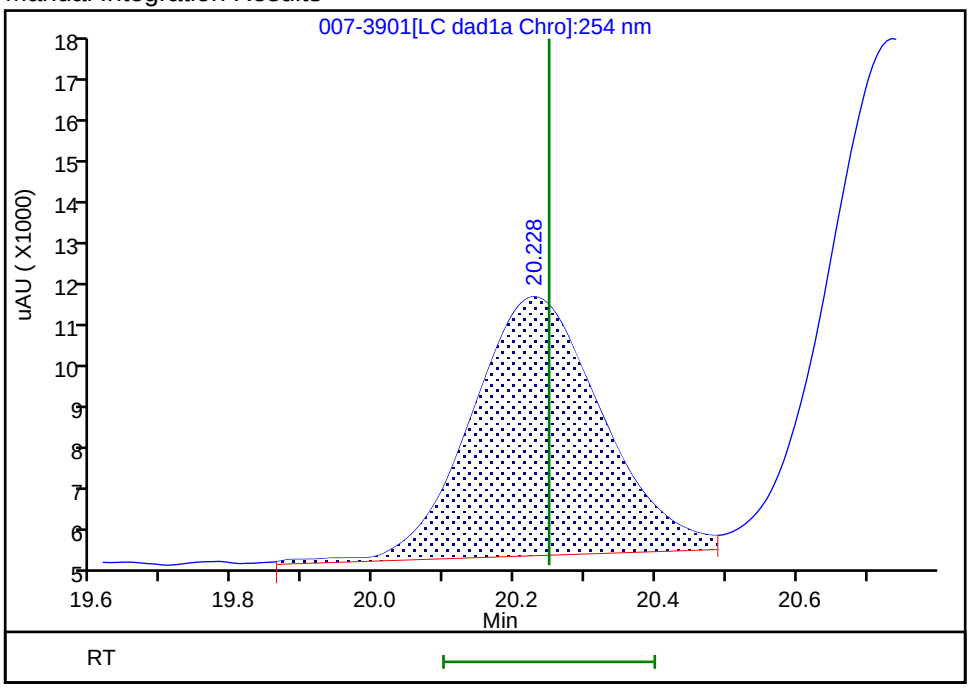
Processing Integration Results

RT: 20.23
Area: 69729
Amount: 0.225757
Amount Units: ug/ml



Manual Integration Results

RT: 20.23
Area: 76103
Amount: 0.247796
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

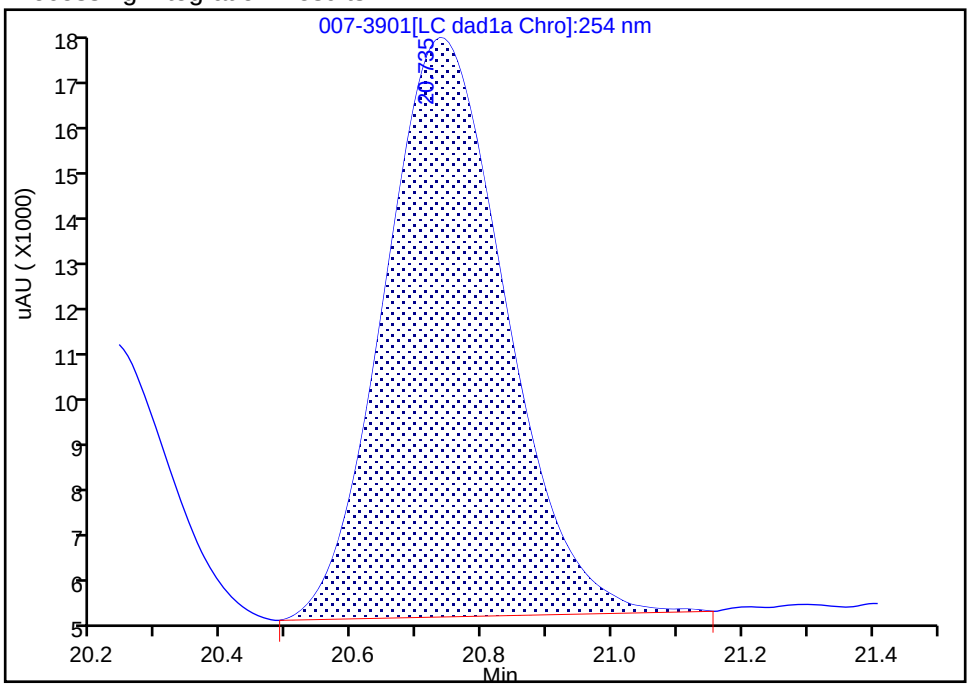
Data File:	\\chromfs\denver\chromdata\g2_luna\20200702-92991.b\007-3901.d				
Injection Date:	03-Jul-2020 15:33:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

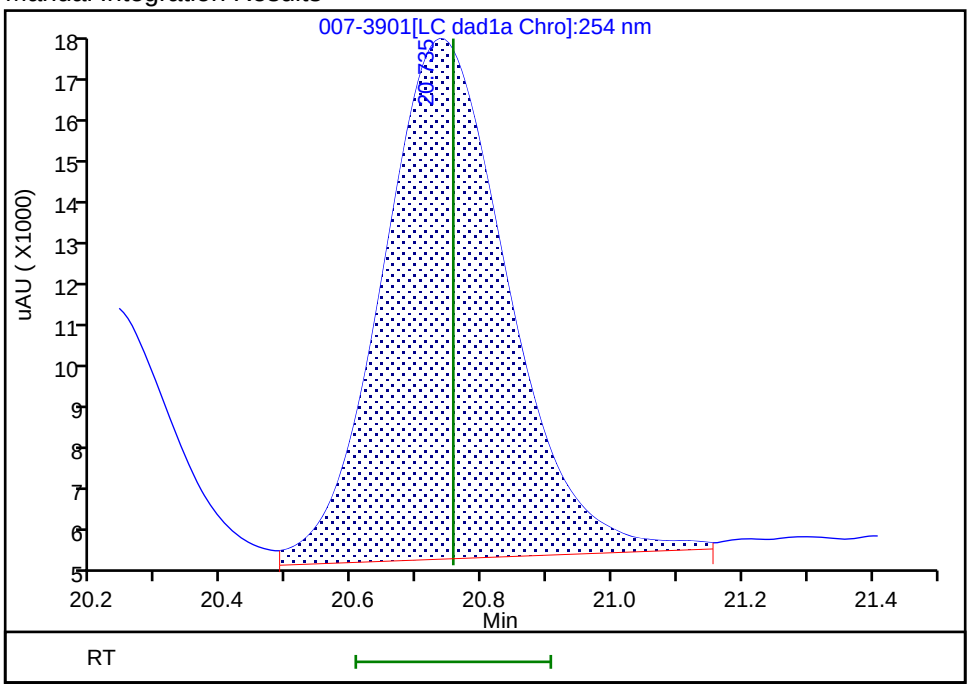
Processing Integration Results

RT: 20.74
Area: 145159
Amount: 0.226771
Amount Units: ug/ml



Manual Integration Results

RT: 20.74
Area: 154239
Amount: 0.240956
Amount Units: ug/ml



Reviewer: zhangji, 03-Jul-2020 16:10:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-487658/33 Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	189186		348	400	-13.1	15.0
DNX	Ave	152928	145270		380	400	-5.0	15.0
MNX	Ave	158544	136780		403	467	-13.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-487658/33 Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.59	6.49	6.69
DNX	6.91	6.81	7.01
MNX	7.36	7.21	7.51

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040033.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	05-Mar-2020 00:03:48	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0089779-033				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:					
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:28	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:37:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.594	6.594	0.000	75750	0.4004	0.3481	M
5 DNX	1	6.914	6.914	0.000	58166	0.4004	0.3803	M
6 MNX	1	7.361	7.361	0.000	63849	0.4668	0.4027	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

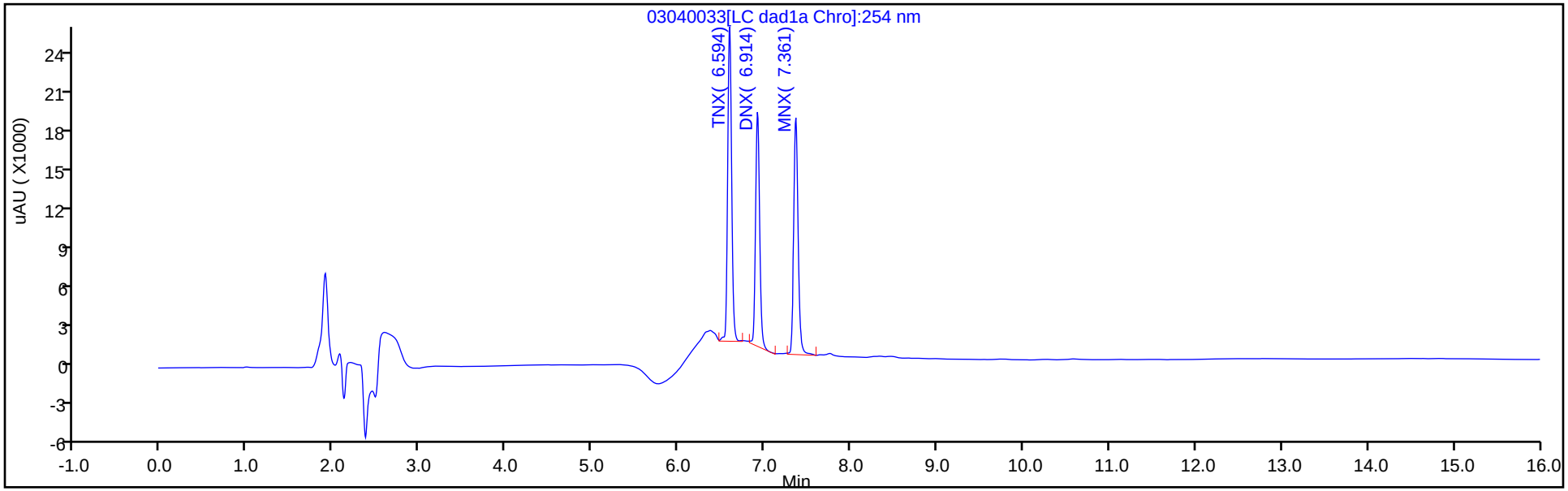
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

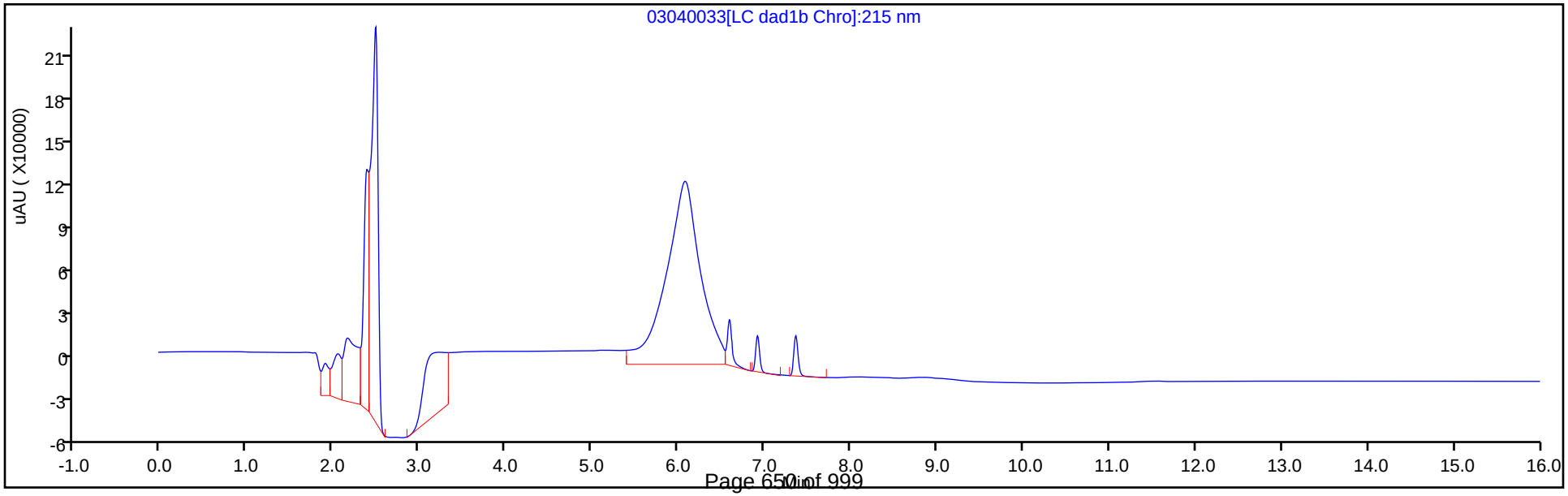
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	ICV DMT			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

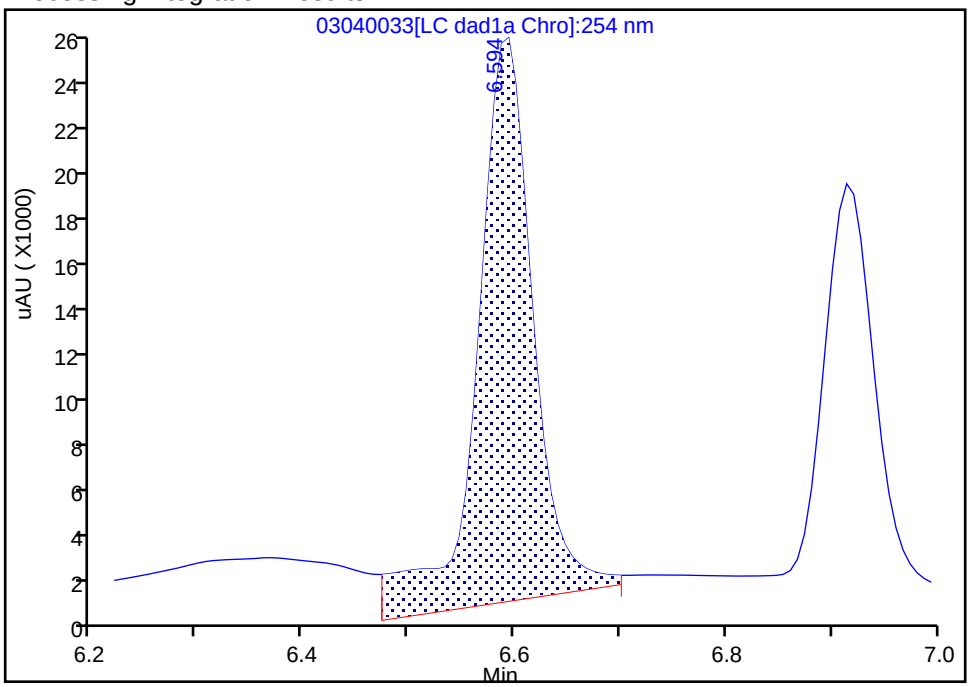
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

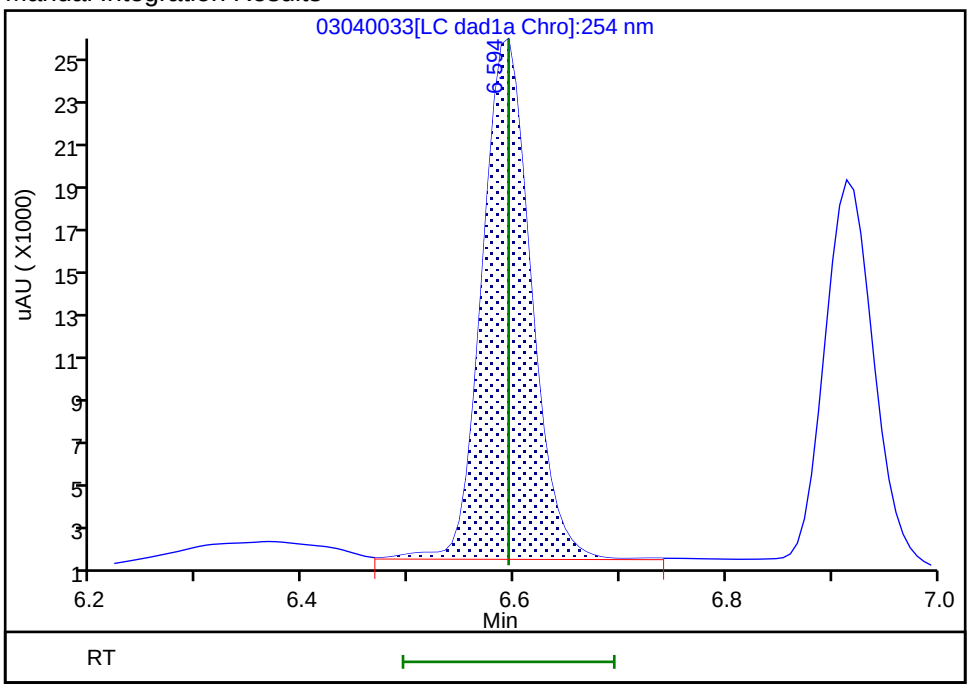
Processing Integration Results

RT: 6.59
Area: 91215
Amount: 0.419170
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 75750
Amount: 0.348102
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:37:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

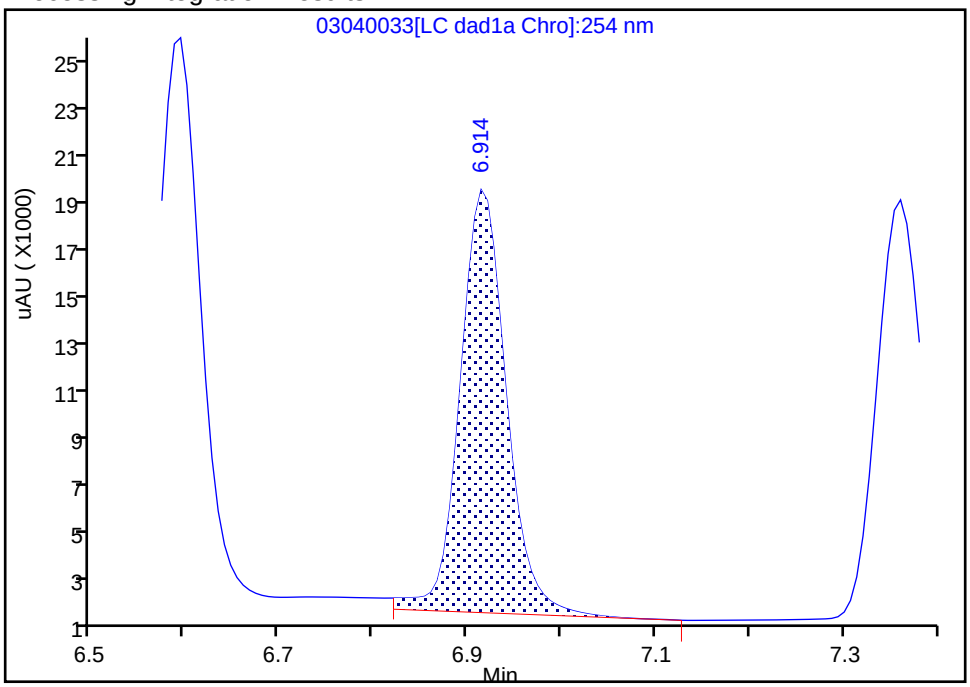
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

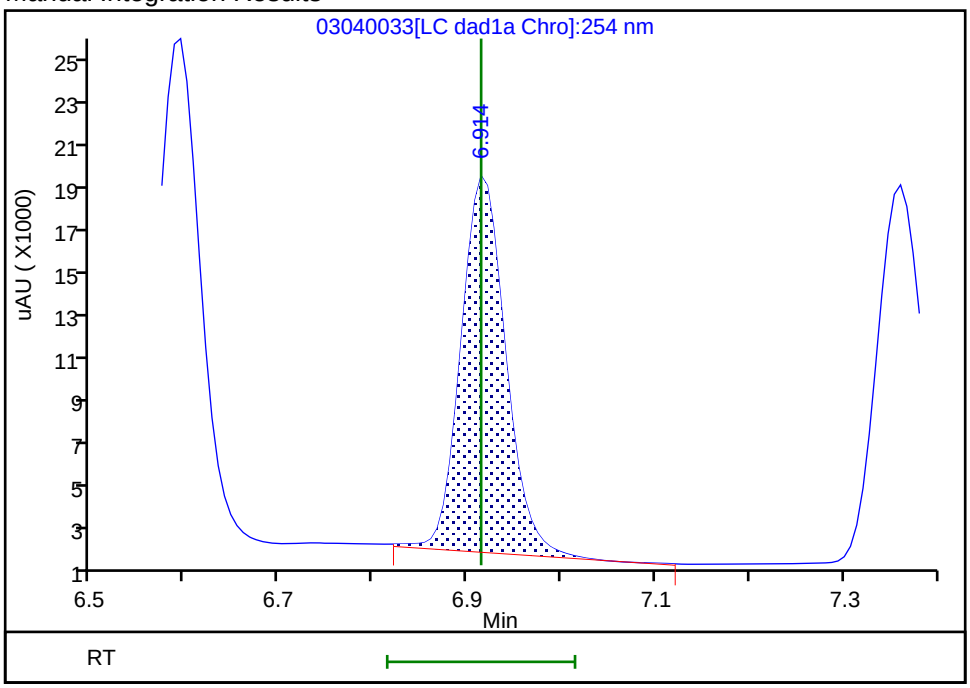
Processing Integration Results

RT: 6.91
Area: 60901
Amount: 0.398232
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 58166
Amount: 0.380348
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:37:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-489145/16 Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	85080		396	400	-1.0	15.0
RDX	Ave	116613	105640		362	400	-9.4	15.0
Picric acid	Ave	85131	85323		401	400	0.2	15.0
1,3,5-Trinitrobenzene	Ave	230309	238740		415	400	3.7	15.0
1,3-Dinitrobenzene	Ave	306686	307370		401	400	0.2	15.0
Nitrobenzene	Ave	200403	202493		404	400	1.0	15.0
Tetryl	Ave	177032	175175		396	400	-1.0	15.0
Nitroglycerin	Ave	68133	67461		3960	4000	-1.0	15.0
2,4,6-Trinitrotoluene	Ave	204031	204823		402	400	0.4	15.0
4-Amino-2,6-dinitrotoluene	Lin2		159183		363	400	-9.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	202785		400	400	-0.0	15.0
2,6-Dinitrotoluene	Ave	149452	151720		406	400	1.5	15.0
2,4-Dinitrotoluene	Ave	303584	291863		385	400	-3.9	15.0
2-Nitrotoluene	Ave	135051	128890		382	400	-4.6	15.0
4-Nitrotoluene	Ave	113005	112495		398	400	-0.5	15.0
3-Nitrotoluene	Ave	143029	145235		406	400	1.5	15.0
PETN	Ave	78605	75679		3850	4000	-3.7	15.0
1,2-Dinitrobenzene	Ave	138212	136648		395	400	-1.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: ICV 280-489145/16 Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.69	6.54	6.84
RDX	7.75	7.60	7.90
Picric acid	8.06	7.91	8.21
1,3,5-Trinitrobenzene	8.89	8.74	9.04
1,3-Dinitrobenzene	9.53	9.38	9.68
Nitrobenzene	9.92	9.77	10.07
Tetryl	10.22	10.07	10.37
Nitroglycerin	10.73	10.58	10.88
2,4,6-Trinitrotoluene	11.18	11.08	11.28
4-Amino-2,6-dinitrotoluene	11.34	11.24	11.44
2-Amino-4,6-dinitrotoluene	11.63	11.53	11.73
2,6-Dinitrotoluene	11.79	11.69	11.89
2,4-Dinitrotoluene	11.98	11.88	12.08
2-Nitrotoluene	12.82	12.67	12.97
4-Nitrotoluene	13.26	13.11	13.41
3-Nitrotoluene	13.85	13.70	14.00
PETN	14.94	14.79	15.09
1,2-Dinitrobenzene	8.71	8.56	8.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180016.D
Lims ID: ICV MAIN
Client ID:
Sample Type: ICV
Inject. Date: 18-Mar-2020 15:02:22 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV MAIN
Misc. Info.: 280-0090150-016
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:46 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:47:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.685	6.685	0.000	34032	0.4000	0.3959	M
7 RDX	1	7.751	7.751	0.000	42256	0.4000	0.3624	
8 2,4,6-Trinitrophenol	1	8.058	8.058	0.000	34129	0.4000	0.4009	
$ 9 1,2-Dinitrobenzene	1	8.711	8.711	0.000	54659	0.4000	0.3955	
10 1,3,5-Trinitrobenzene	1	8.885	8.885	0.000	95496	0.4000	0.4146	
11 1,3-Dinitrobenzene	1	9.531	9.531	0.000	122948	0.4000	0.4009	
12 Nitrobenzene	1	9.918	9.918	0.000	80997	0.4000	0.4042	
14 Tetryl	1	10.218	10.218	0.000	70070	0.4000	0.3958	
15 Nitroglycerin	2	10.731	10.731	0.000	269842	4.00	3.96	
16 2,4,6-Trinitrotoluene	1	11.184	11.184	0.000	81929	0.4000	0.4016	
17 4-Amino-2,6-dinitrotoluene	1	11.344	11.344	0.000	63673	0.4000	0.3635	
18 2-Amino-4,6-dinitrotoluene	1	11.631	11.631	0.000	81114	0.4000	0.3999	
19 2,6-Dinitrotoluene	1	11.791	11.791	0.000	60688	0.4000	0.4061	
20 2,4-Dinitrotoluene	1	11.984	11.984	0.000	116745	0.4000	0.3846	
21 o-Nitrotoluene	1	12.824	12.824	0.000	51556	0.4000	0.3818	
22 p-Nitrotoluene	1	13.264	13.264	0.000	44998	0.4000	0.3982	
23 m-Nitrotoluene	1	13.851	13.851	0.000	58094	0.4000	0.4062	
24 PETN	2	14.938	14.938	0.000	302716	4.00	3.85	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

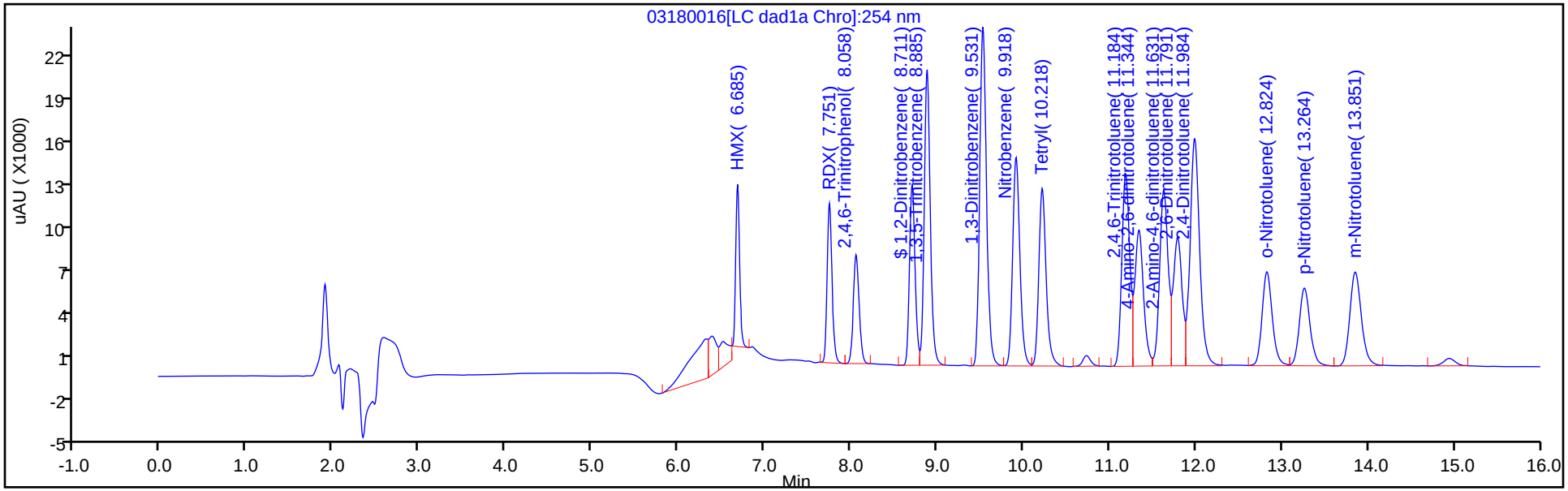
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

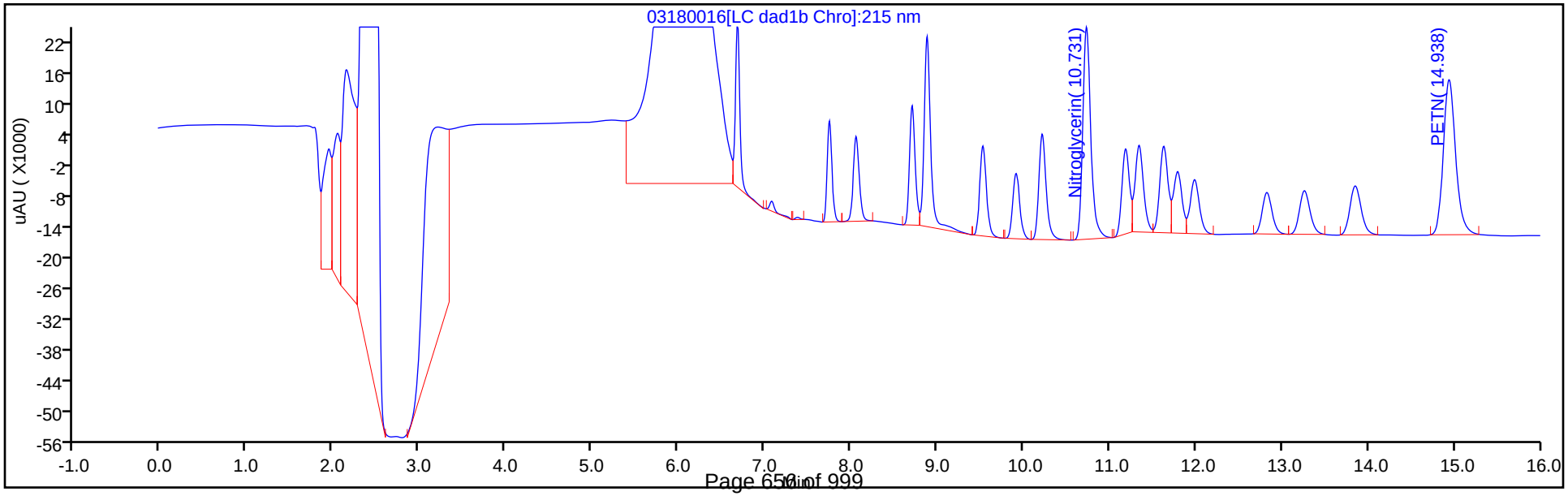
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d				
Injection Date:	18-Mar-2020 15:02:22	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	ICV MAIN			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

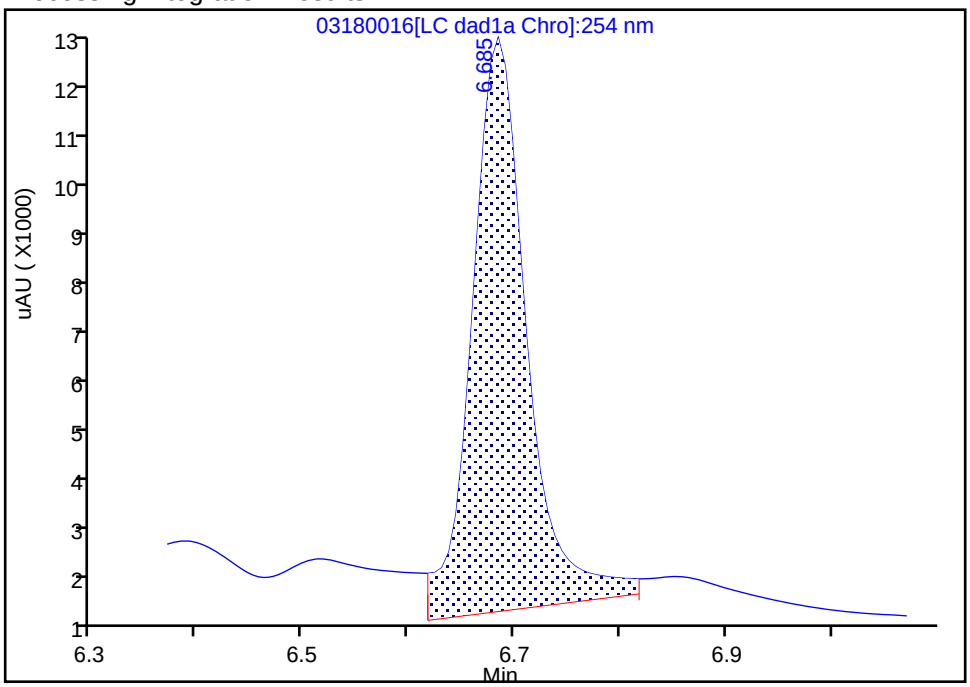
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d				
Injection Date:	18-Mar-2020 15:02:22	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV MAIN				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

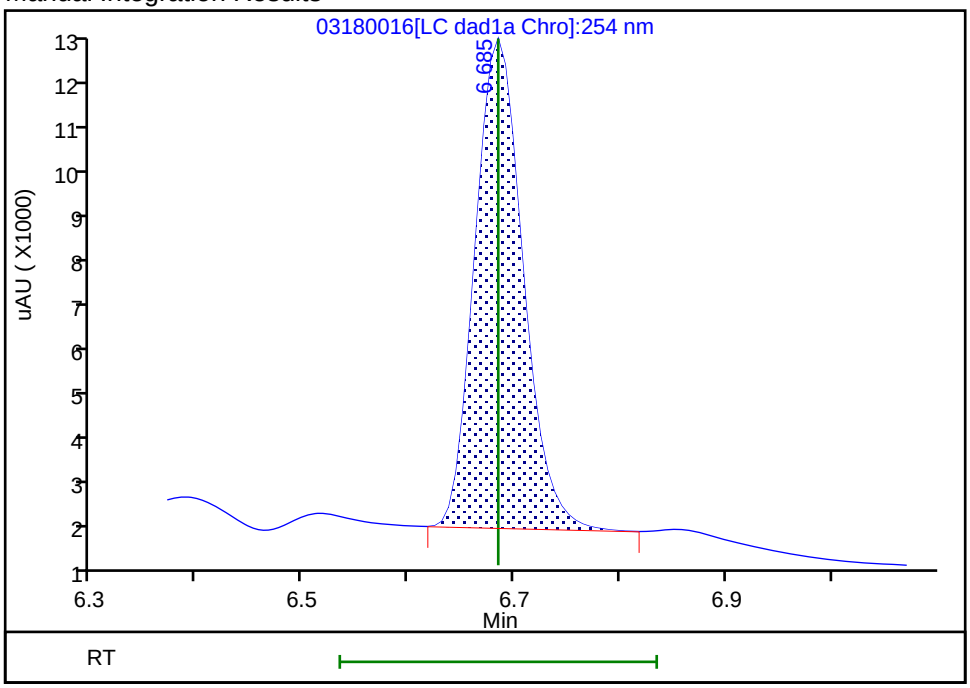
Processing Integration Results

RT: 6.68
Area: 41406
Amount: 0.494354
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 34032
Amount: 0.395895
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:47:09

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/41 Calibration Date: 07/02/2020 06:17

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07010041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	86912		253	250	1.1	15.0
RDX	Ave	116613	110884		238	250	-4.9	15.0
Picric acid	Ave	85131	86616		254	250	1.7	15.0
1,3,5-Trinitrobenzene	Ave	230309	235261		256	251	2.2	15.0
1,3-Dinitrobenzene	Ave	306686	314399		257	251	2.5	15.0
Nitrobenzene	Ave	200403	192347		241	251	-4.0	15.0
Tetryl	Ave	177032	175924		249	251	-0.6	15.0
Nitroglycerin	Ave	68133	67844		2490	2500	-0.4	15.0
2,4,6-Trinitrotoluene	Ave	204031	200215		246	251	-1.9	15.0
4-Amino-2,6-dinitrotoluene	Lin2		154829		224	250	-10.6	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	208709		258	251	2.9	15.0
2,6-Dinitrotoluene	Ave	149452	151506		254	251	1.4	15.0
2,4-Dinitrotoluene	Ave	303584	258709		214	251	-14.8	15.0
2-Nitrotoluene	Ave	135051	128200		237	250	-5.1	15.0
4-Nitrotoluene	Ave	113005	104723		232	251	-7.3	15.0
3-Nitrotoluene	Ave	143029	141862		248	250	-0.8	15.0
PETN	Ave	78605	89704		2850	2500	14.1	15.0
1,2-Dinitrobenzene	Ave	138212	141744		256	250	2.6	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/41 Calibration Date: 07/02/2020 06:17

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07010041.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.73	6.56	6.86
RDX	7.81	7.64	7.94
Picric acid	8.12	7.96	8.26
1,3,5-Trinitrobenzene	8.95	8.79	9.09
1,3-Dinitrobenzene	9.61	9.45	9.75
Nitrobenzene	9.99	9.83	10.13
Tetryl	10.31	10.16	10.46
Nitroglycerin	10.83	10.67	10.97
2,4,6-Trinitrotoluene	11.29	11.18	11.38
4-Amino-2,6-dinitrotoluene	11.47	11.37	11.57
2-Amino-4,6-dinitrotoluene	11.77	11.66	11.86
2,6-Dinitrotoluene	11.89	11.80	12.00
2,4-Dinitrotoluene	12.10	12.00	12.20
2-Nitrotoluene	12.93	12.79	13.09
4-Nitrotoluene	13.38	13.23	13.53
3-Nitrotoluene	13.97	13.83	14.13
PETN	15.09	14.98	15.28
1,2-Dinitrobenzene	8.77	8.61	8.91

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010041.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 02-Jul-2020 06:17:01 ALS Bottle#: 7 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092952-041
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Jul-2020 14:04:14 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1059

First Level Reviewer: zhangji Date: 02-Jul-2020 11:34:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.725	6.709	0.016	21728	0.2500	0.2528	M
7 RDX	1	7.805	7.789	0.016	27721	0.2500	0.2377	
8 2,4,6-Trinitrophenol	1	8.118	8.109	0.009	21654	0.2500	0.2544	
$ 9 1,2-Dinitrobenzene	1	8.771	8.763	0.008	35436	0.2500	0.2564	
10 1,3,5-Trinitrobenzene	1	8.945	8.936	0.009	58933	0.2505	0.2559	
11 1,3-Dinitrobenzene	1	9.605	9.596	0.009	78757	0.2505	0.2568	
12 Nitrobenzene	1	9.985	9.982	0.003	48279	0.2510	0.2409	
14 Tetryl	1	10.311	10.309	0.002	44069	0.2505	0.2489	M
15 Nitroglycerin	2	10.825	10.822	0.003	169609	2.50	2.49	
16 2,4,6-Trinitrotoluene	1	11.285	11.282	0.003	50254	0.2510	0.2463	M
17 4-Amino-2,6-dinitrotoluene	1	11.471	11.469	0.002	38746	0.2503	0.2237	M
18 2-Amino-4,6-dinitrotoluene	1	11.765	11.756	0.009	52386	0.2510	0.2583	M
19 2,6-Dinitrotoluene	1	11.891	11.896	-0.005	38028	0.2510	0.2544	M
20 2,4-Dinitrotoluene	1	12.098	12.096	0.002	64936	0.2510	0.2139	M
21 o-Nitrotoluene	1	12.931	12.936	-0.005	32050	0.2500	0.2373	M
22 p-Nitrotoluene	1	13.378	13.382	-0.004	26233	0.2505	0.2321	M
23 m-Nitrotoluene	1	13.971	13.982	-0.011	35501	0.2503	0.2482	M
24 PETN	2	15.085	15.129	-0.044	224259	2.50	2.85	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

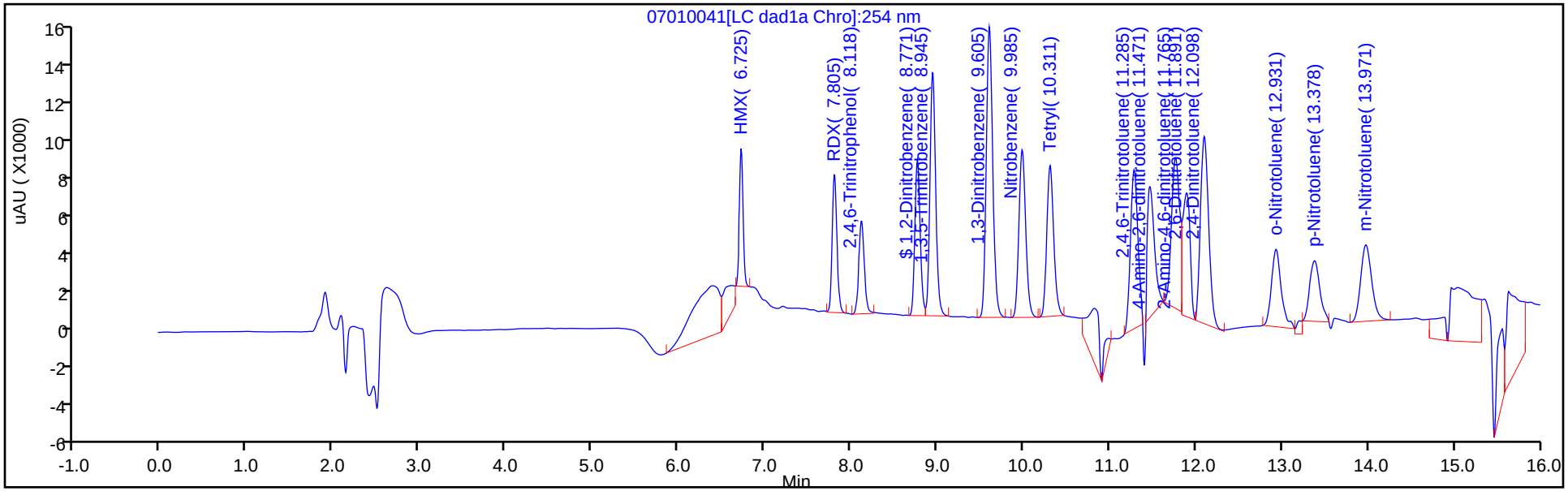
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 02-Jul-2020 14:04:15 Chrom Revision: 2.3 21-Jun-2020 18:30:46

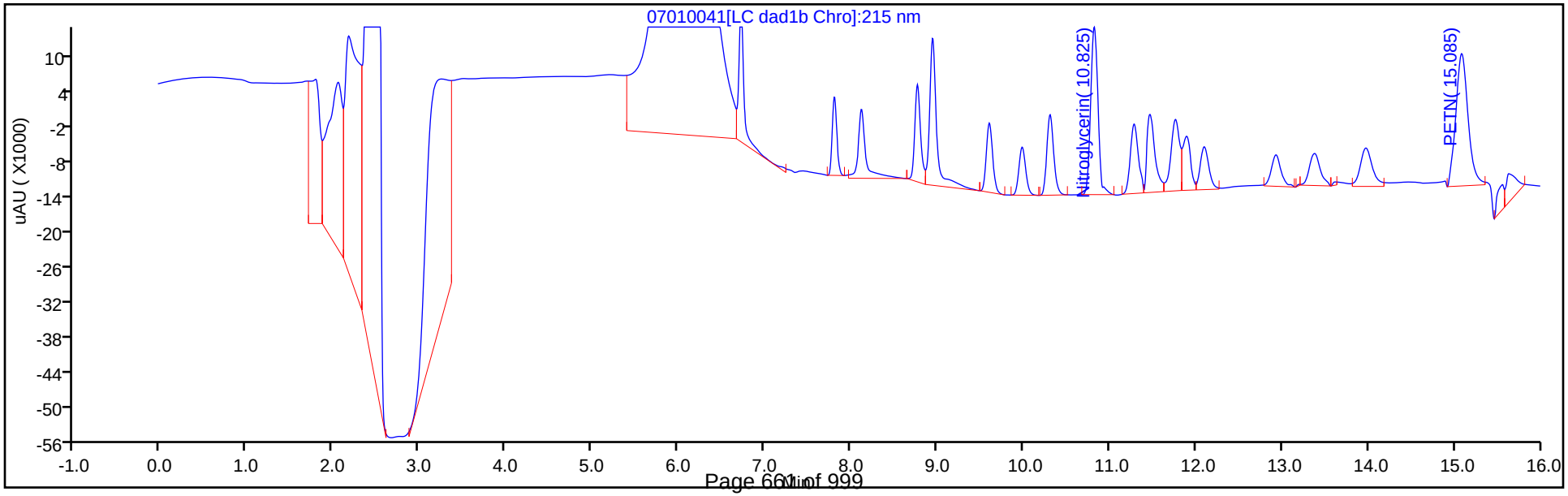
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	41
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

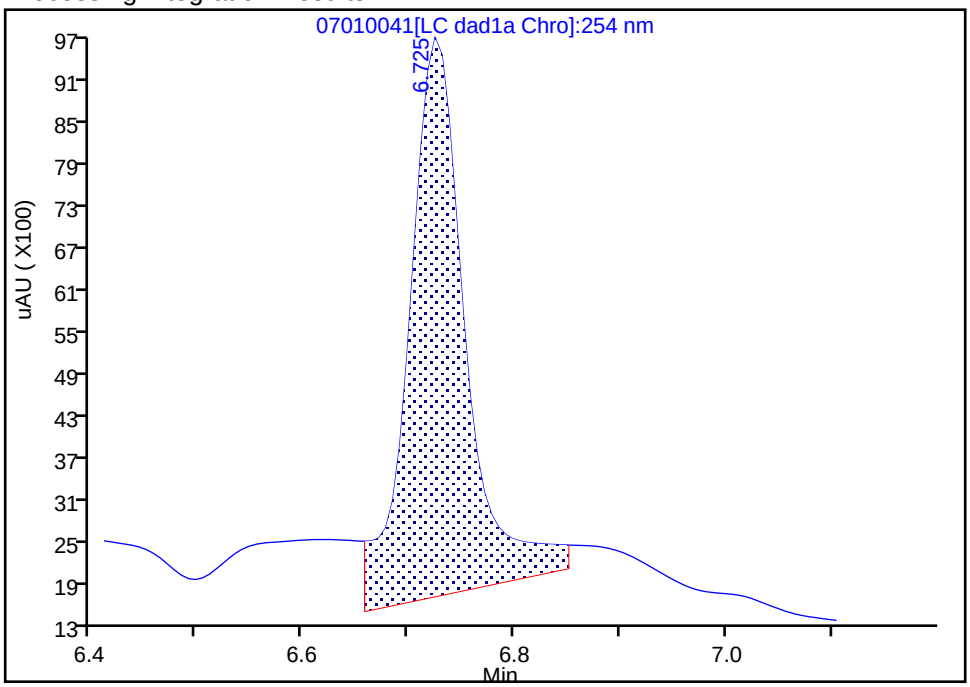
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

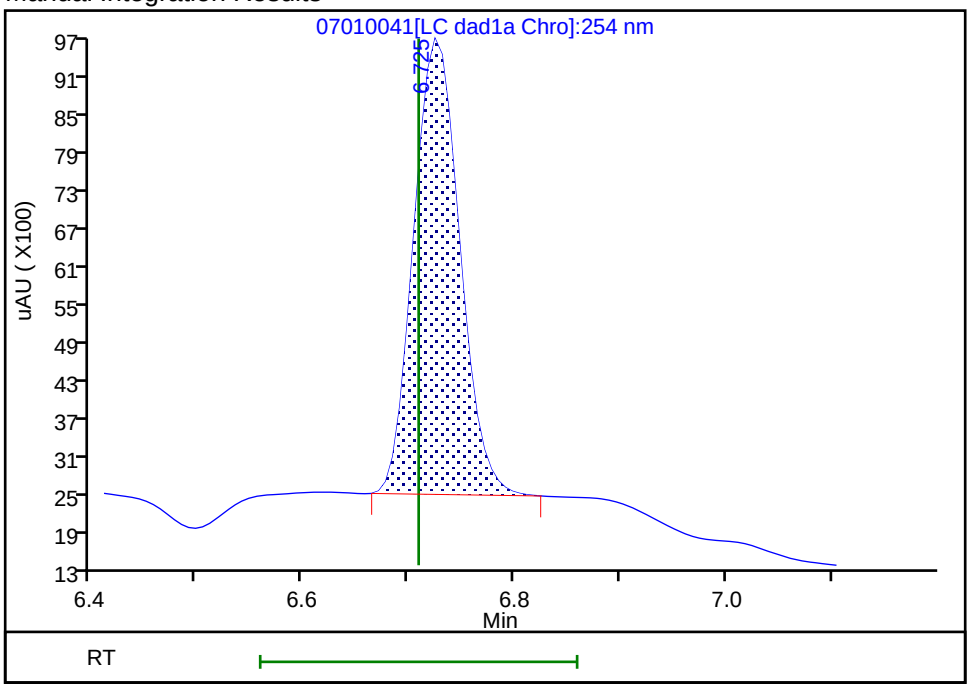
Processing Integration Results

RT: 6.72
Area: 29586
Amount: 0.344175
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 21728
Amount: 0.252762
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:30:29
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

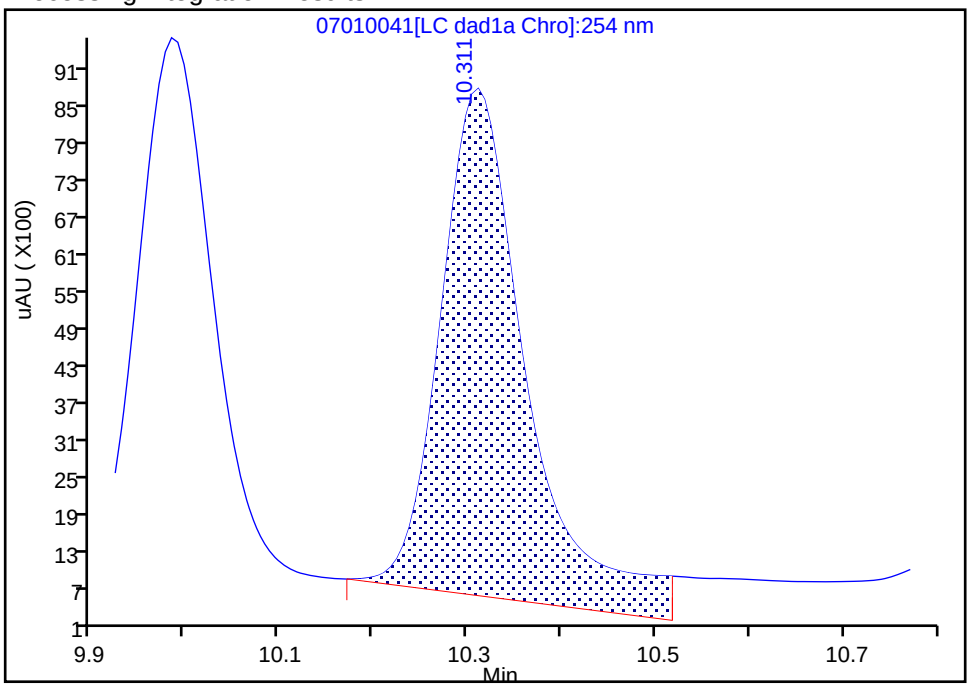
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 Tetryl, CAS: 479-45-8

Signal: 1

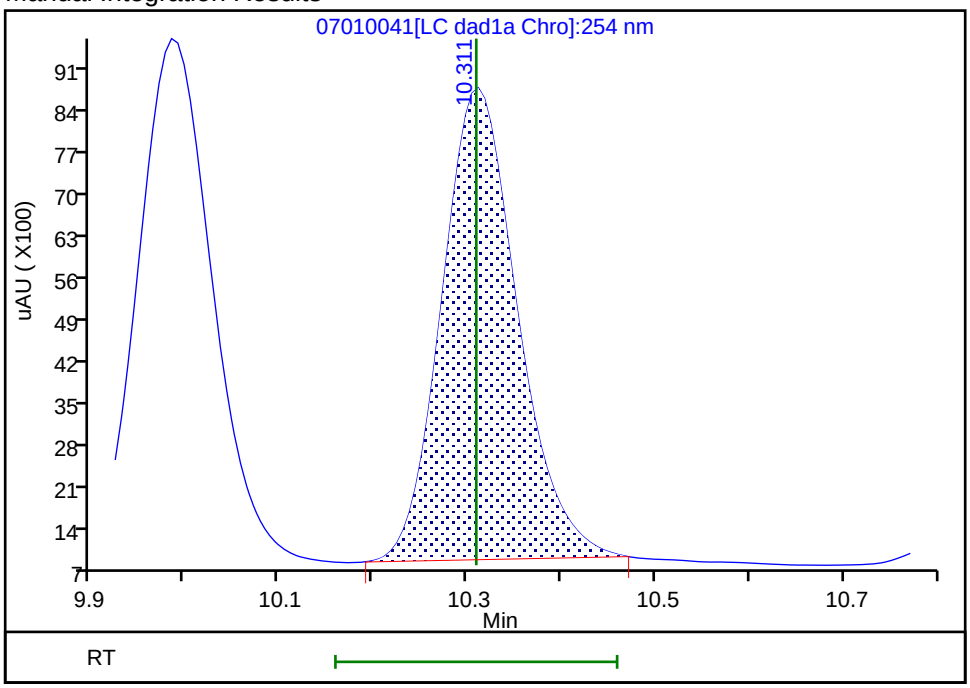
Processing Integration Results

RT: 10.31
Area: 52093
Amount: 0.294258
Amount Units: ug/mL



Manual Integration Results

RT: 10.31
Area: 44069
Amount: 0.248932
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:33:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

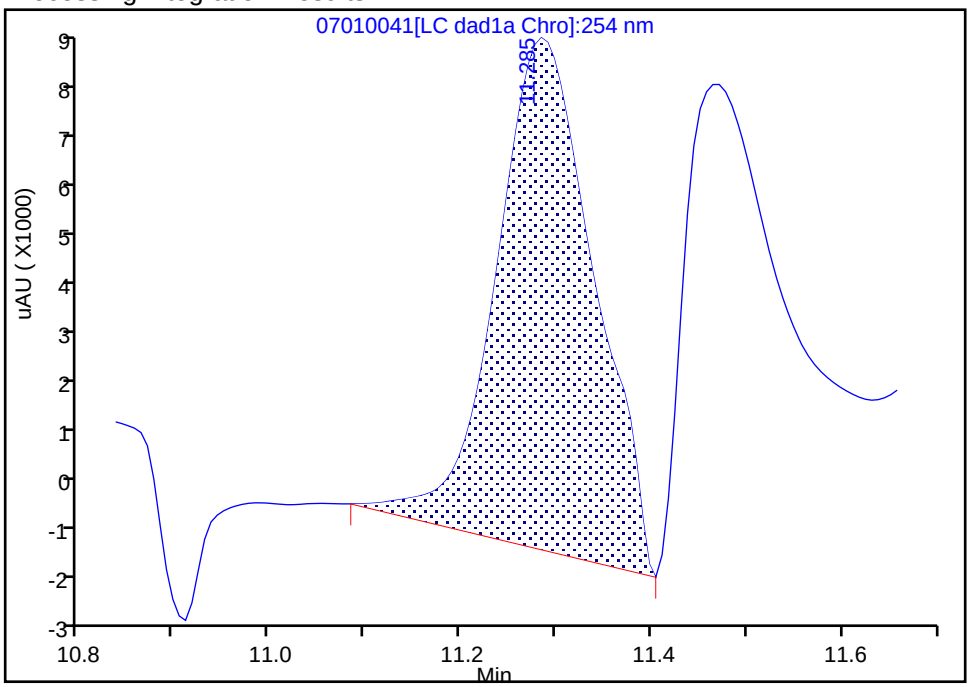
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

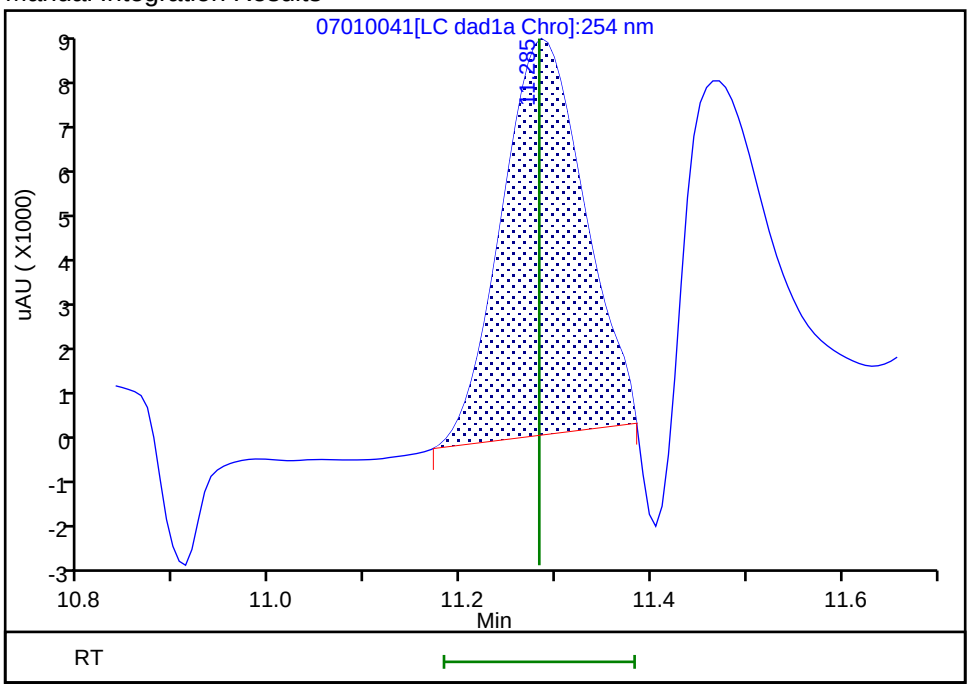
Processing Integration Results

RT: 11.28
Area: 69718
Amount: 0.341703
Amount Units: ug/mL



Manual Integration Results

RT: 11.28
Area: 50254
Amount: 0.246306
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:30:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

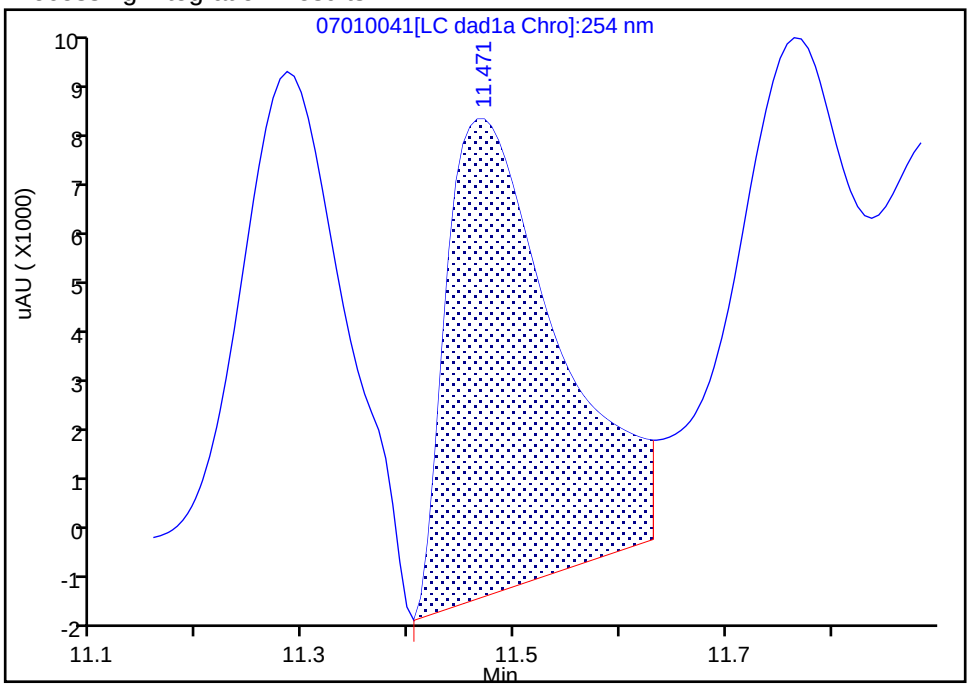
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

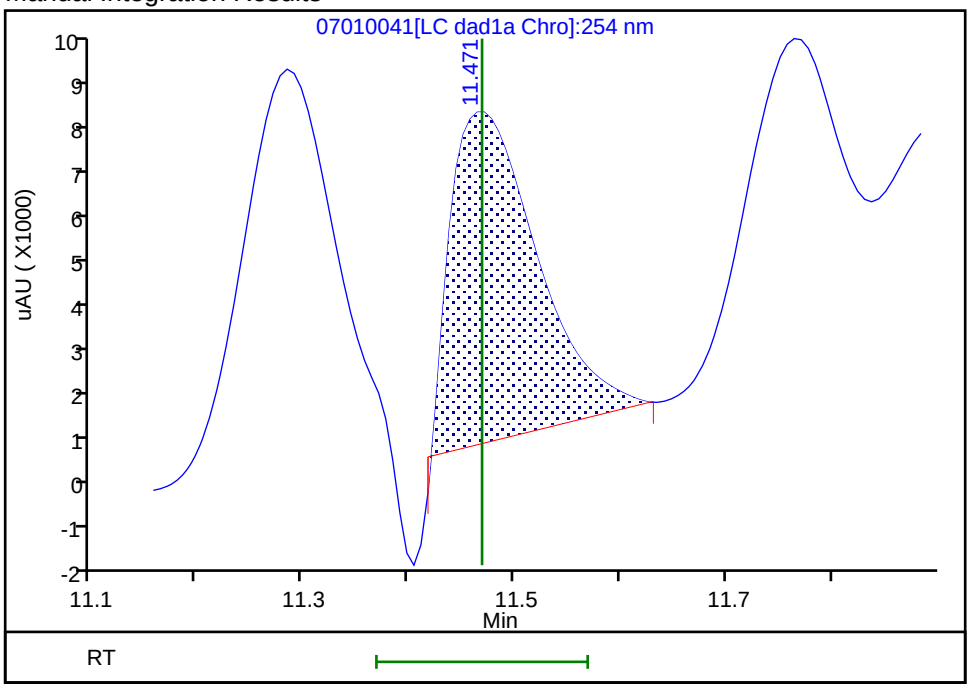
Processing Integration Results

RT: 11.47
Area: 64813
Amount: 0.369880
Amount Units: ug/mL



Manual Integration Results

RT: 11.47
Area: 38746
Amount: 0.223743
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:32:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

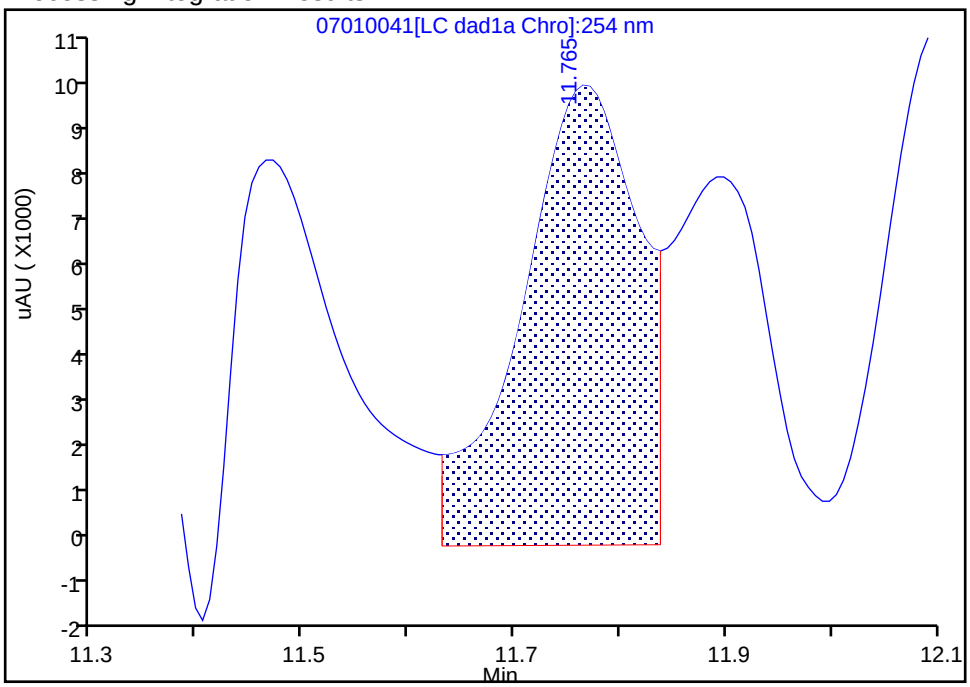
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

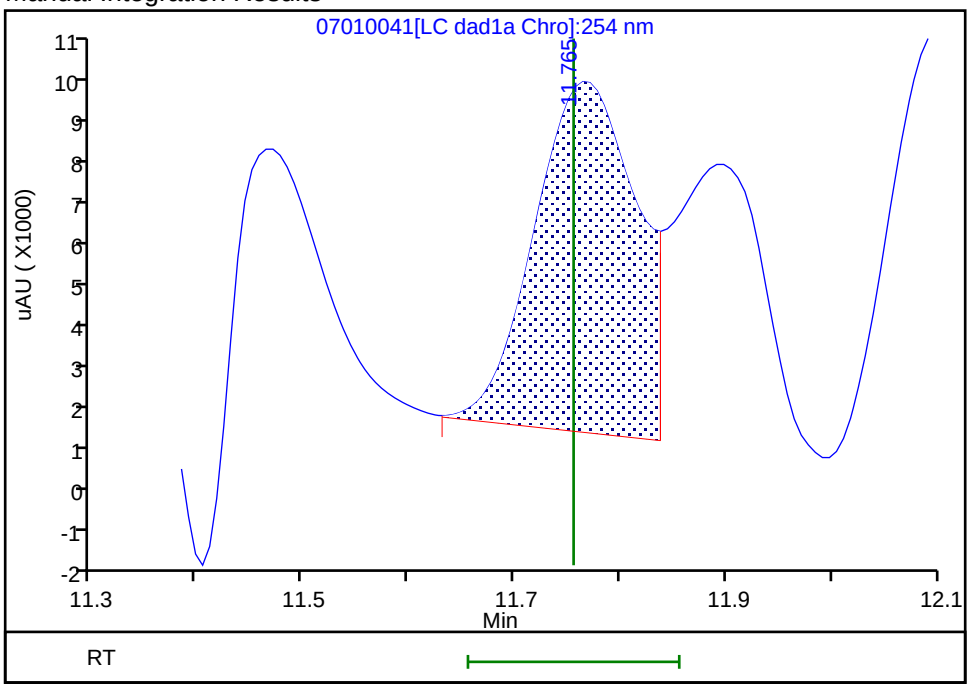
Processing Integration Results

RT: 11.76
Area: 71439
Amount: 0.352234
Amount Units: ug/mL



Manual Integration Results

RT: 11.76
Area: 52386
Amount: 0.258292
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:32:12
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

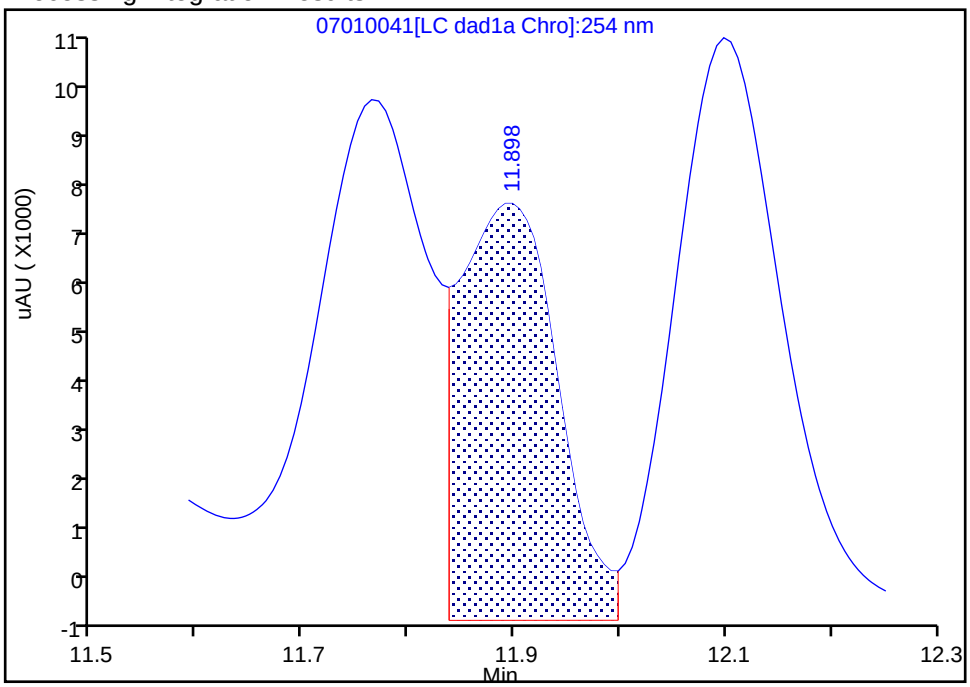
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

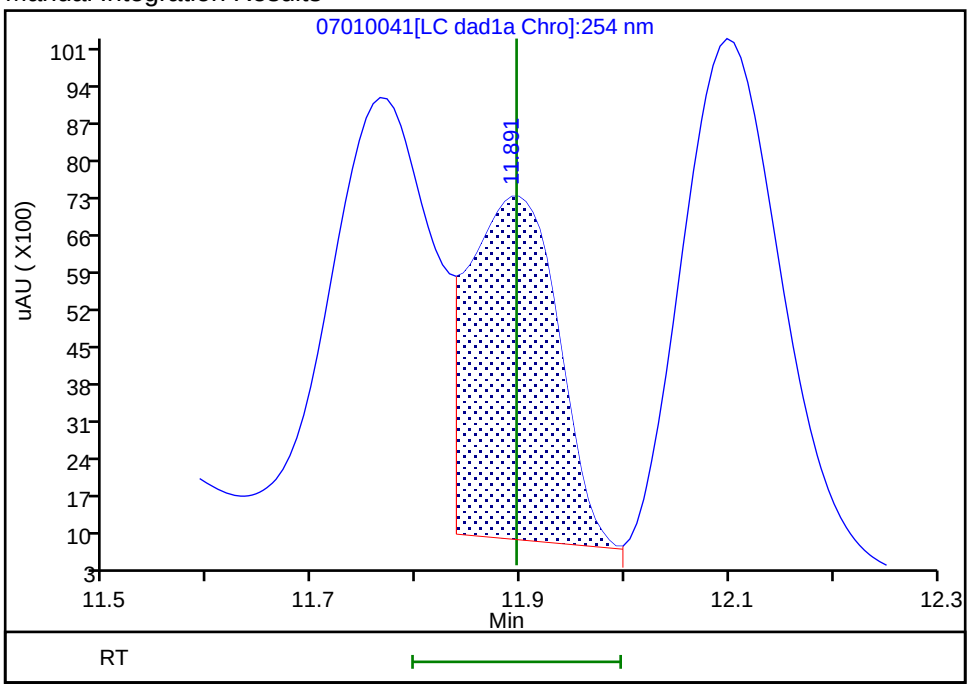
Processing Integration Results

RT: 11.90
Area: 47297
Amount: 0.316469
Amount Units: ug/mL



Manual Integration Results

RT: 11.89
Area: 38028
Amount: 0.254449
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:32:39
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

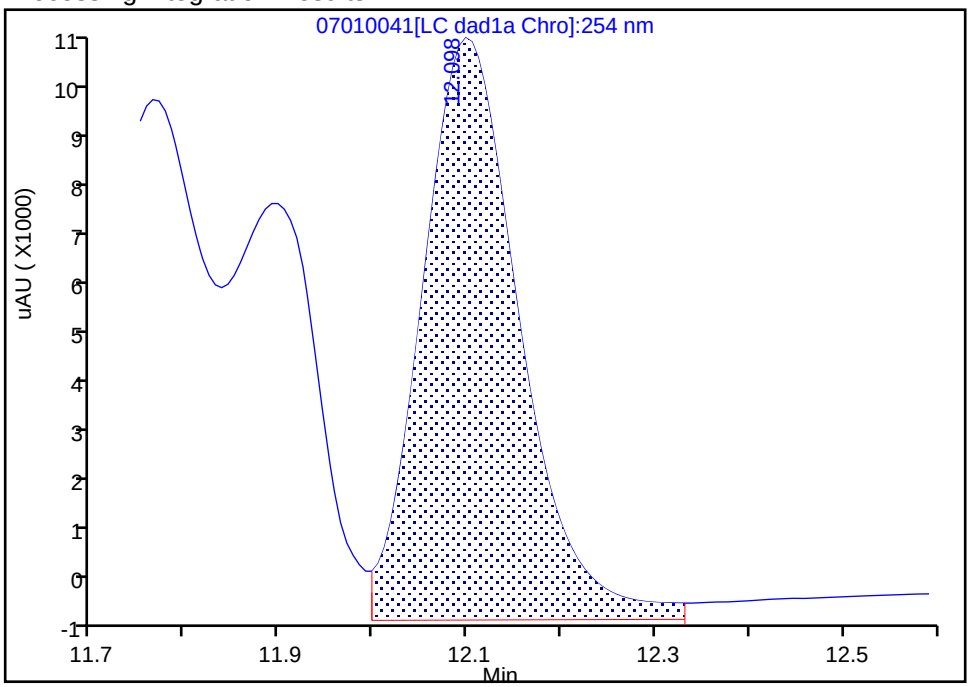
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

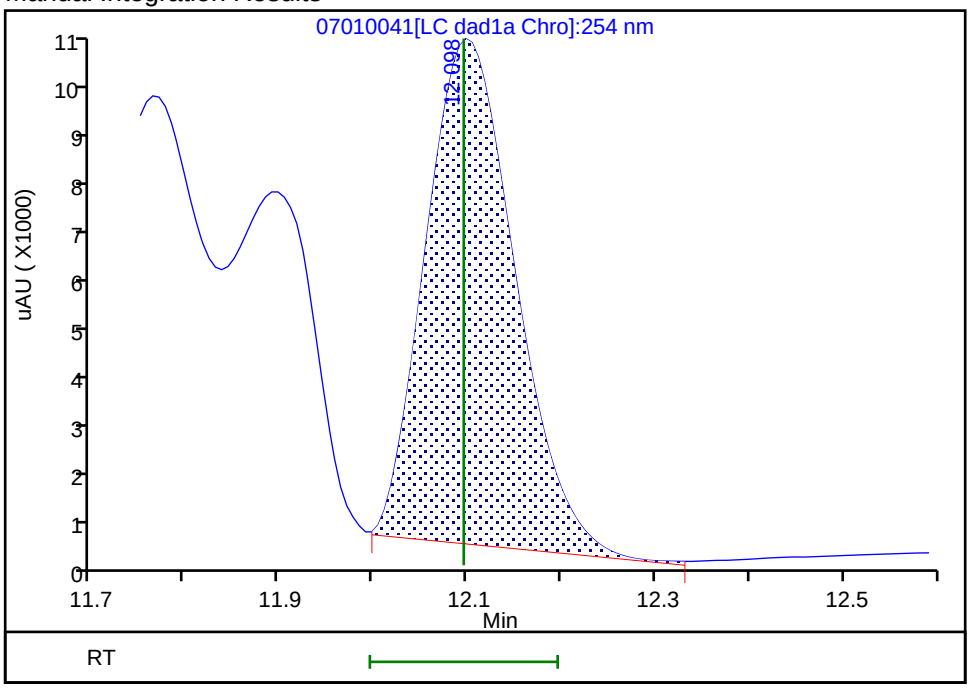
Processing Integration Results

RT: 12.10
Area: 75316
Amount: 0.248089
Amount Units: ug/mL



Manual Integration Results

RT: 12.10
Area: 64936
Amount: 0.213898
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:32:39
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

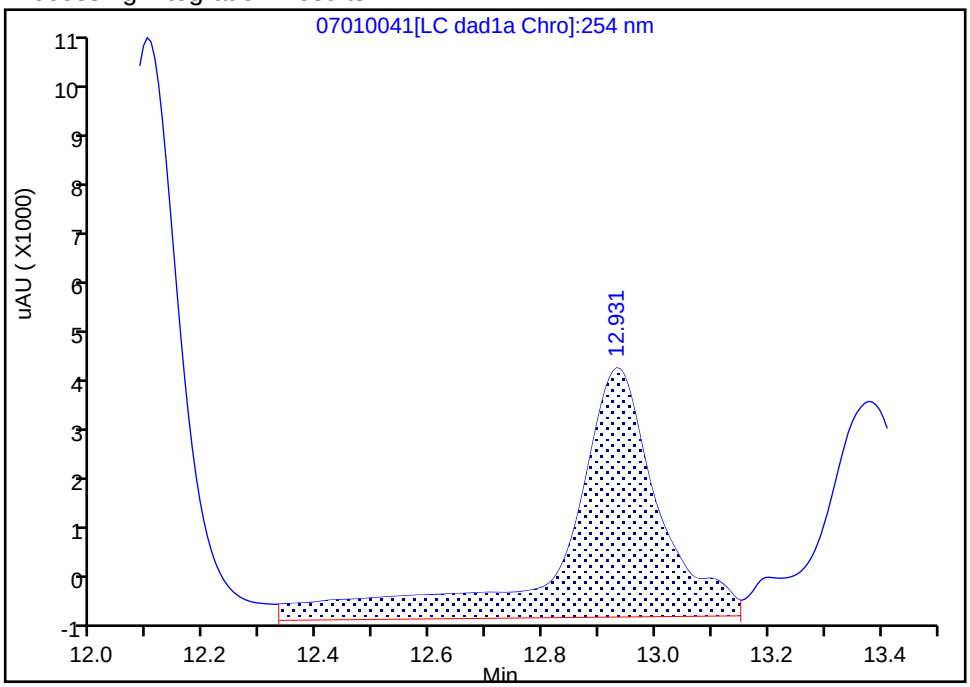
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

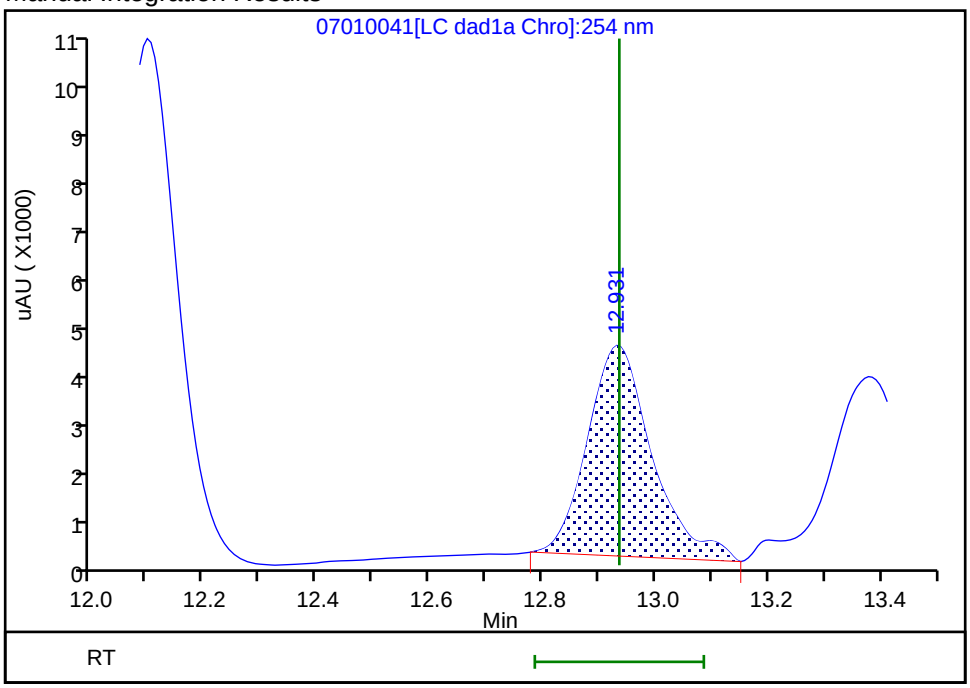
Processing Integration Results

RT: 12.93
Area: 51371
Amount: 0.380383
Amount Units: ug/mL



Manual Integration Results

RT: 12.93
Area: 32050
Amount: 0.237318
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:31:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

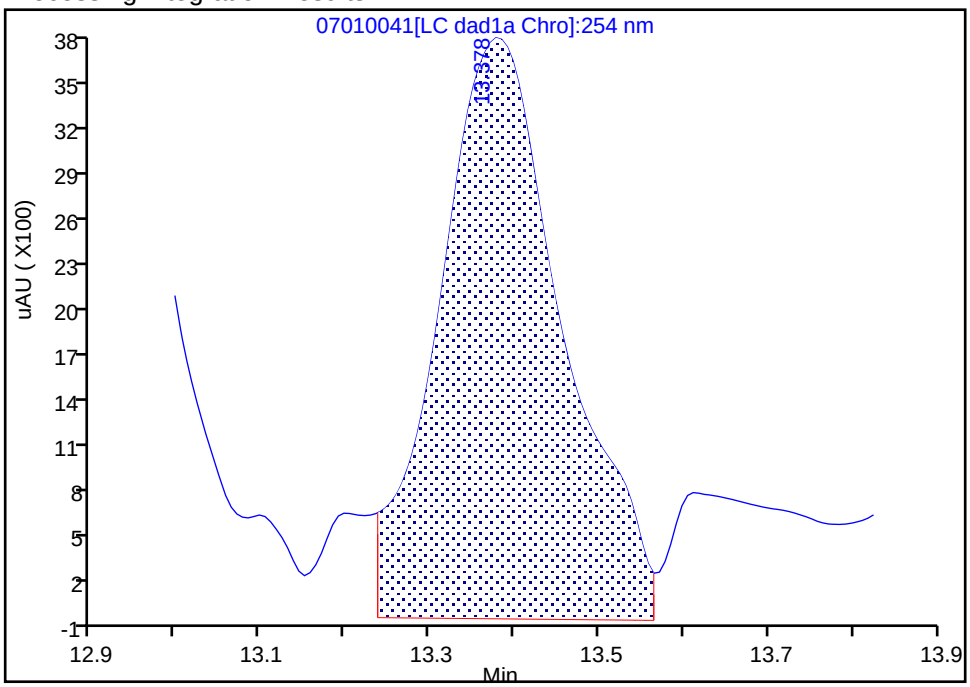
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

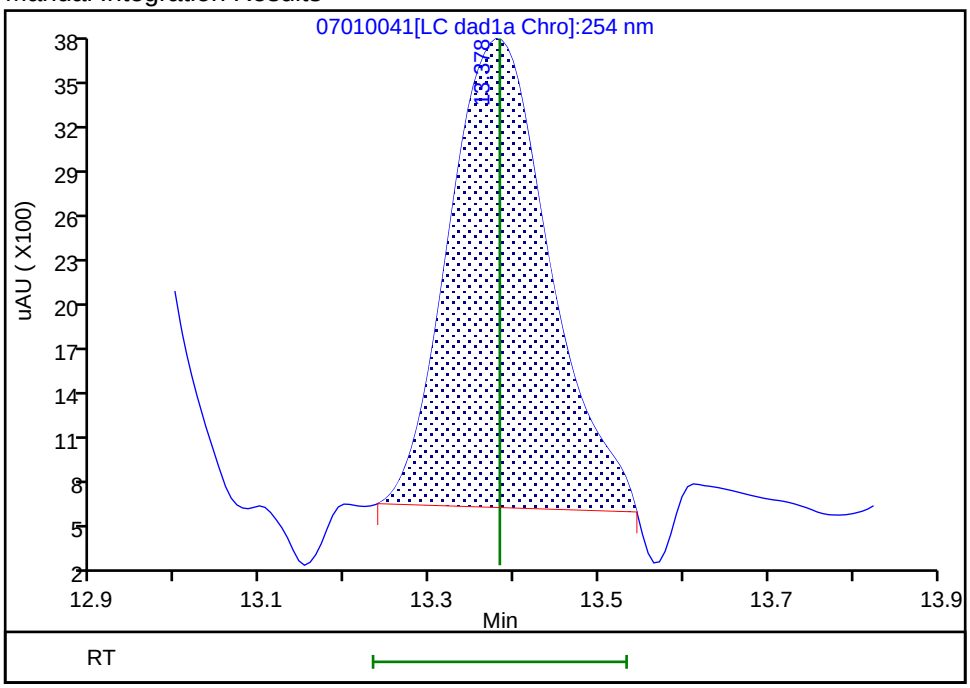
Processing Integration Results

RT: 13.38
Area: 39150
Amount: 0.346445
Amount Units: ug/mL



Manual Integration Results

RT: 13.38
Area: 26233
Amount: 0.232140
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:31:24

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

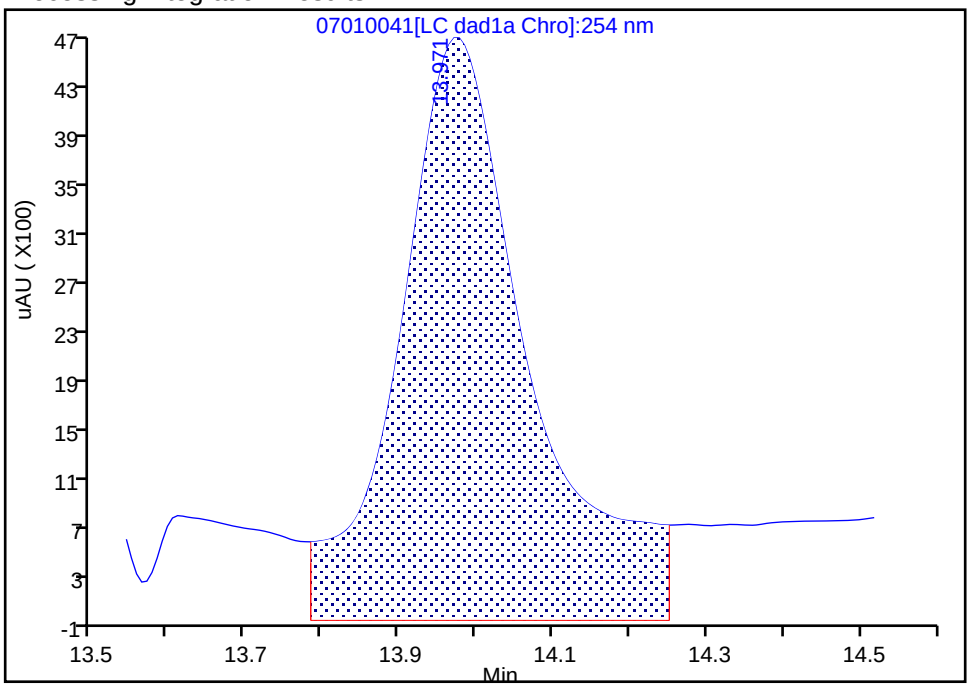
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010041.d				
Injection Date:	02-Jul-2020 06:17:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

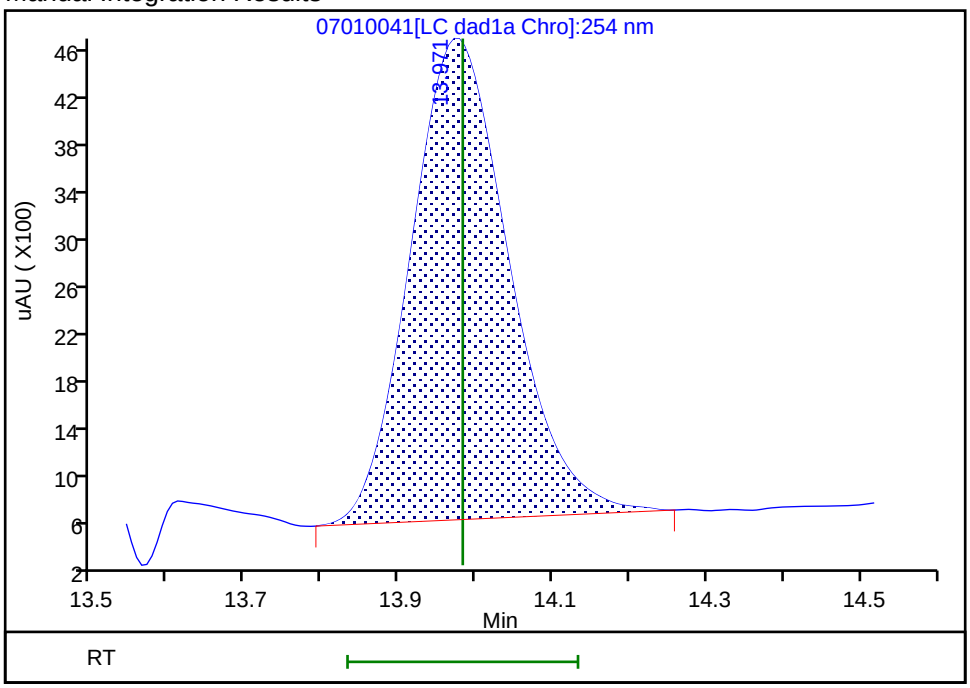
Processing Integration Results

RT: 13.97
Area: 54977
Amount: 0.384378
Amount Units: ug/mL



Manual Integration Results

RT: 13.97
Area: 35501
Amount: 0.248209
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:31:13

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/42 Calibration Date: 07/02/2020 06:40

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07010042.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	212148		244	250	-2.5	15.0
DNX	Ave	152928	147109		241	250	-3.8	15.0
MNX	Ave	158544	143129		263	292	-9.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/42 Calibration Date: 07/02/2020 06:40

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07010042.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.63	6.51	6.71
DNX	6.95	6.84	7.04
MNX	7.40	7.24	7.54

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010042.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 06:40:01	ALS Bottle#:	9	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092952-042				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				

First Level Reviewer: zhangji Date: 02-Jul-2020 13:03:26

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.626	6.609	0.017	53090	0.2503	0.2440	M
5 DNX	1	6.946	6.935	0.011	36814	0.2503	0.2407	M
6 MNX	1	7.400	7.389	0.011	41758	0.2918	0.2634	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

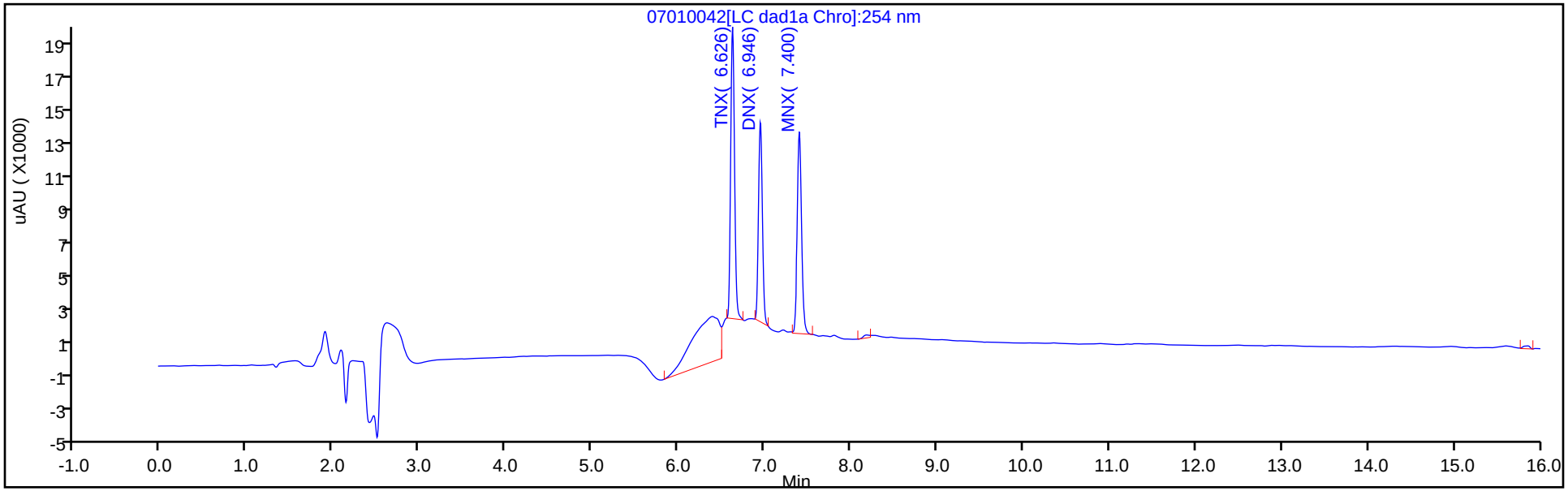
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Jul-2020 14:04:16 Chrom Revision: 2.3 21-Jun-2020 18:30:46

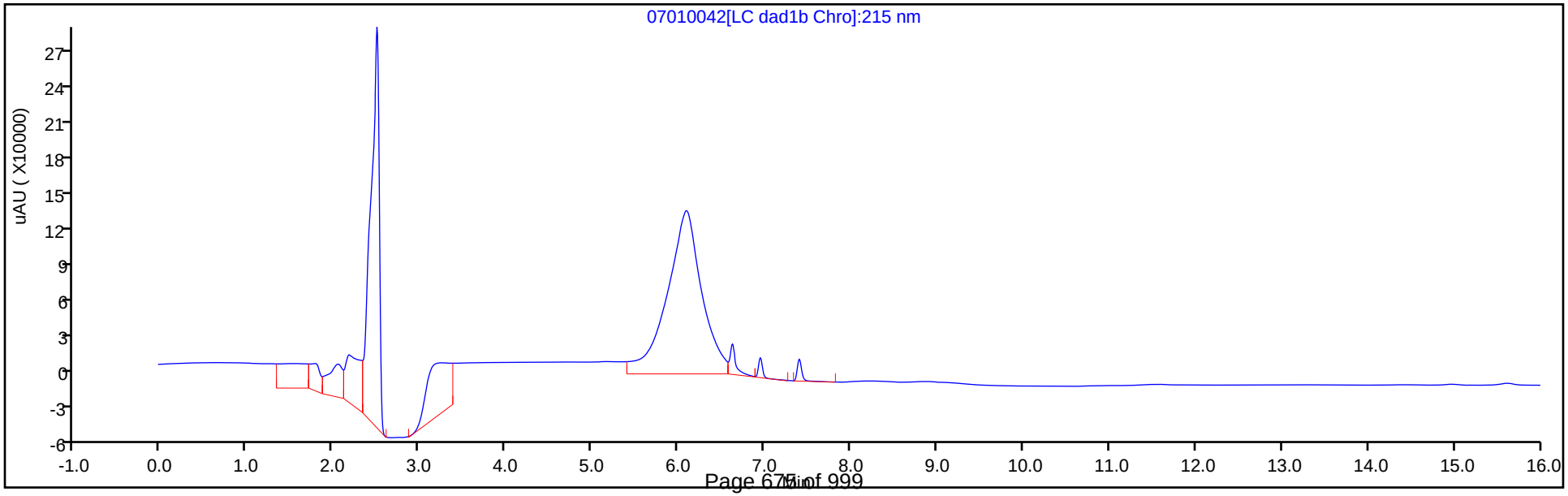
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010042.d				
Injection Date:	02-Jul-2020 06:40:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	42
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

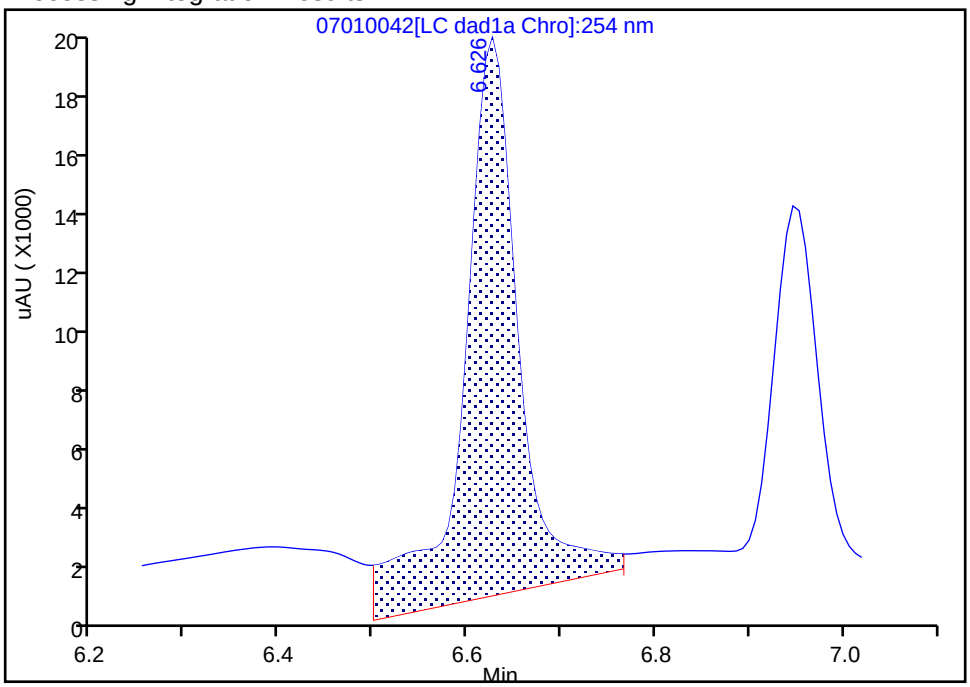
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010042.d				
Injection Date:	02-Jul-2020 06:40:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

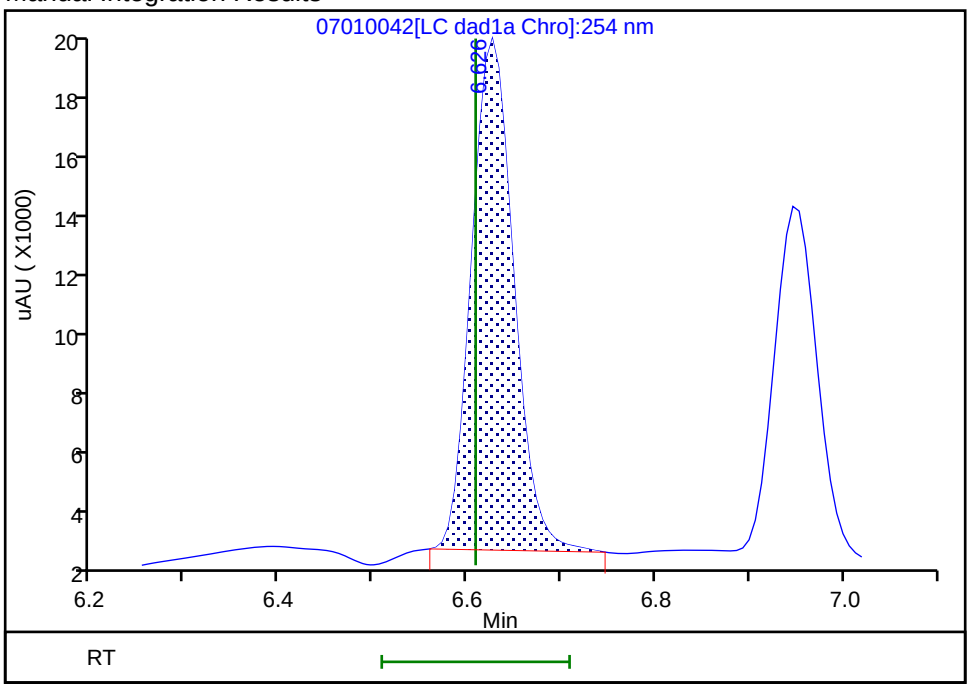
Processing Integration Results

RT: 6.63
Area: 75427
Amount: 0.346618
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 53090
Amount: 0.243970
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:03:15
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

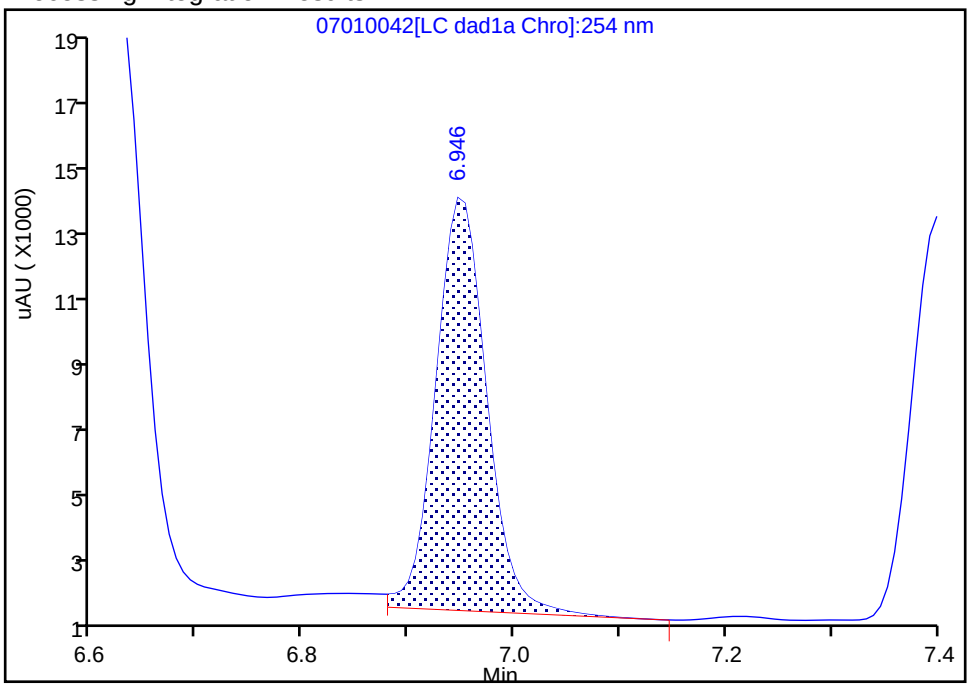
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010042.d				
Injection Date:	02-Jul-2020 06:40:01	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

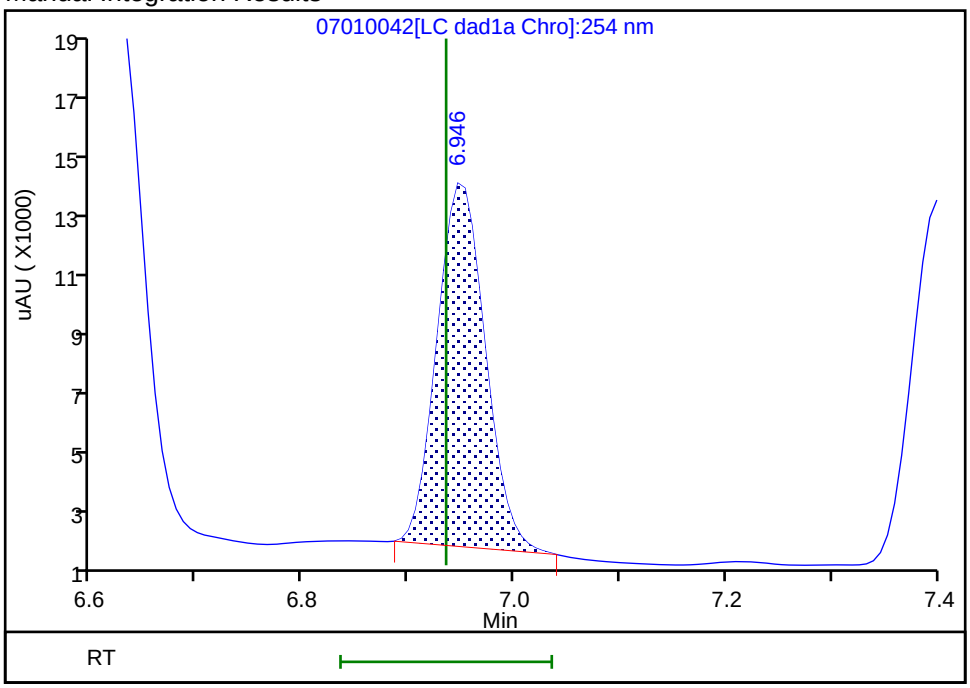
Processing Integration Results

RT: 6.95
Area: 39923
Amount: 0.261057
Amount Units: ug/mL



Manual Integration Results

RT: 6.95
Area: 36814
Amount: 0.240727
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:03:21
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/53 Calibration Date: 07/02/2020 10:53

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07010053.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	86192		251	250	0.3	15.0
RDX	Ave	116613	110272		236	250	-5.4	15.0
Picric acid	Ave	85131	85616		251	250	0.6	15.0
1,3,5-Trinitrobenzene	Ave	230309	235832		257	251	2.4	15.0
1,3-Dinitrobenzene	Ave	306686	315561		258	251	2.9	15.0
Nitrobenzene	Ave	200403	188968		237	251	-5.7	15.0
Tetryl	Ave	177032	179689		254	251	1.5	15.0
Nitroglycerin	Ave	68133	70882		2600	2500	4.0	15.0
2,4,6-Trinitrotoluene	Ave	204031	213876		263	251	4.8	15.0
4-Amino-2,6-dinitrotoluene	Lin2		160396		232	250	-7.5	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	200665		248	251	-1.1	15.0
2,6-Dinitrotoluene	Ave	149452	153741		258	251	2.9	15.0
2,4-Dinitrotoluene	Ave	303584	286701		237	251	-5.6	15.0
2-Nitrotoluene	Ave	135051	111104		206	250	-17.7*	15.0
4-Nitrotoluene	Ave	113005	108232		240	251	-4.2	15.0
3-Nitrotoluene	Ave	143029	131960		231	250	-7.7	15.0
PETN	Ave	78605	83780		2660	2500	6.6	15.0
1,2-Dinitrobenzene	Ave	138212	142064		257	250	2.8	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/53 Calibration Date: 07/02/2020 10:53

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07010053.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.72	6.56	6.86
RDX	7.80	7.64	7.94
Picric acid	8.11	7.96	8.26
1,3,5-Trinitrobenzene	8.93	8.79	9.09
1,3-Dinitrobenzene	9.58	9.45	9.75
Nitrobenzene	9.96	9.83	10.13
Tetryl	10.29	10.16	10.46
Nitroglycerin	10.79	10.67	10.97
2,4,6-Trinitrotoluene	11.25	11.18	11.38
4-Amino-2,6-dinitrotoluene	11.42	11.37	11.57
2-Amino-4,6-dinitrotoluene	11.71	11.66	11.86
2,6-Dinitrotoluene	11.85	11.80	12.00
2,4-Dinitrotoluene	12.05	12.00	12.20
2-Nitrotoluene	12.87	12.79	13.09
4-Nitrotoluene	13.30	13.23	13.53
3-Nitrotoluene	13.88	13.83	14.13
PETN	14.94	14.98	15.28
1,2-Dinitrobenzene	8.76	8.61	8.91

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010053.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 02-Jul-2020 10:53:15 ALS Bottle#: 7 Worklist Smp#: 53
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092952-053
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Jul-2020 14:04:21 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1059

First Level Reviewer: zhangji Date: 02-Jul-2020 11:35:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.722	6.709	0.013	21548	0.2500	0.2507	M
7 RDX	1	7.796	7.789	0.007	27568	0.2500	0.2364	
8 2,4,6-Trinitrophenol	1	8.109	8.109	0.000	21404	0.2500	0.2514	
$ 9 1,2-Dinitrobenzene	1	8.756	8.763	-0.007	35516	0.2500	0.2570	
10 1,3,5-Trinitrobenzene	1	8.929	8.936	-0.007	59076	0.2505	0.2565	
11 1,3-Dinitrobenzene	1	9.582	9.596	-0.014	79048	0.2505	0.2577	
12 Nitrobenzene	1	9.962	9.982	-0.020	47431	0.2510	0.2367	M
14 Tetryl	1	10.289	10.309	-0.020	45012	0.2505	0.2543	M
15 Nitroglycerin	2	10.789	10.822	-0.033	177205	2.50	2.60	
16 2,4,6-Trinitrotoluene	1	11.249	11.282	-0.033	53683	0.2510	0.2631	M
17 4-Amino-2,6-dinitrotoluene	1	11.422	11.469	-0.047	40139	0.2503	0.2316	M
18 2-Amino-4,6-dinitrotoluene	1	11.709	11.756	-0.047	50367	0.2510	0.2483	M
19 2,6-Dinitrotoluene	1	11.849	11.896	-0.047	38589	0.2510	0.2582	M
20 2,4-Dinitrotoluene	1	12.049	12.096	-0.047	71962	0.2510	0.2370	M
21 o-Nitrotoluene	1	12.869	12.936	-0.067	27776	0.2500	0.2057	M
22 p-Nitrotoluene	1	13.302	13.382	-0.080	27112	0.2505	0.2399	
23 m-Nitrotoluene	1	13.876	13.982	-0.106	33023	0.2503	0.2309	
24 PETN	2	14.942	15.129	-0.187	209449	2.50	2.66	Ma

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

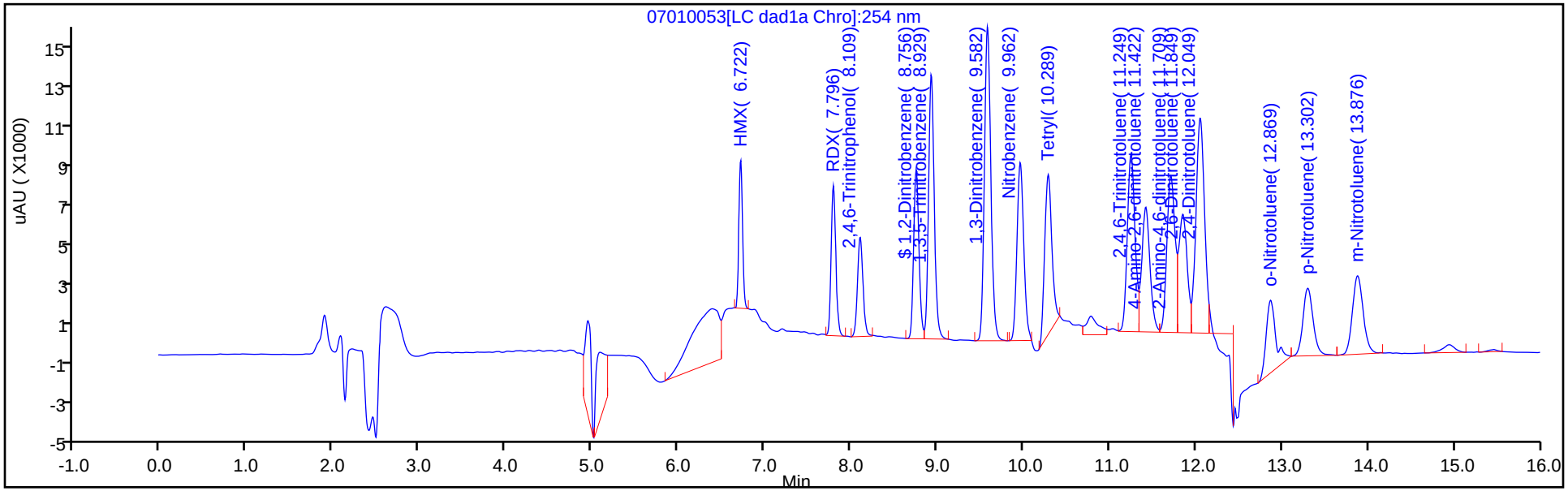
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 02-Jul-2020 14:04:21 Chrom Revision: 2.3 21-Jun-2020 18:30:46

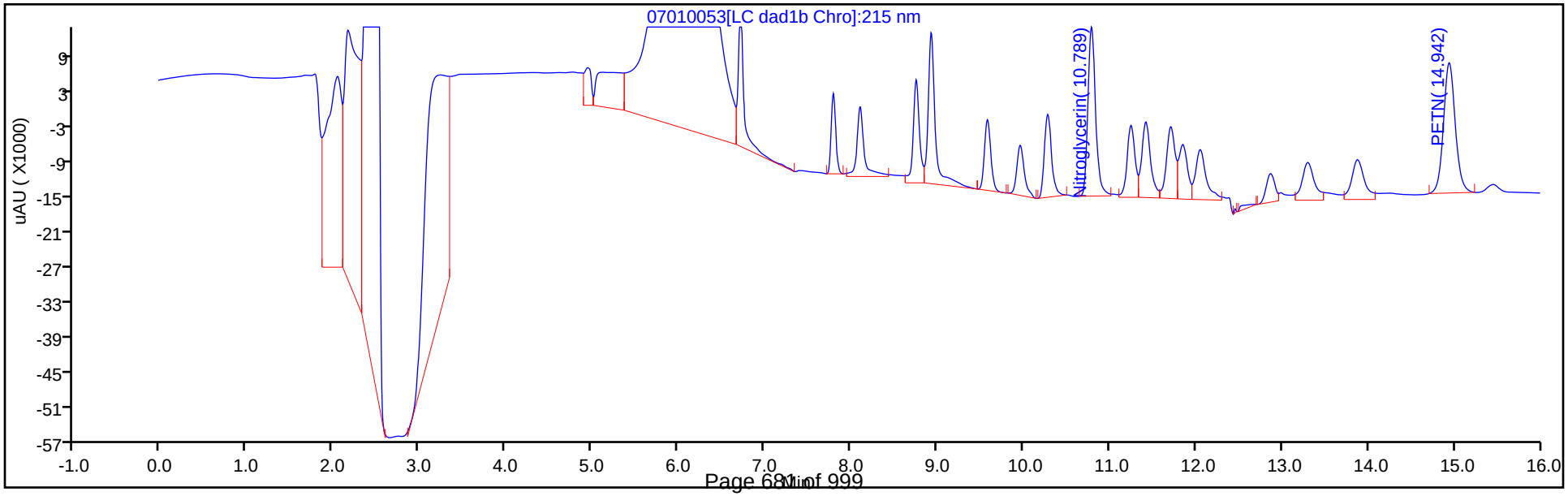
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	53
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

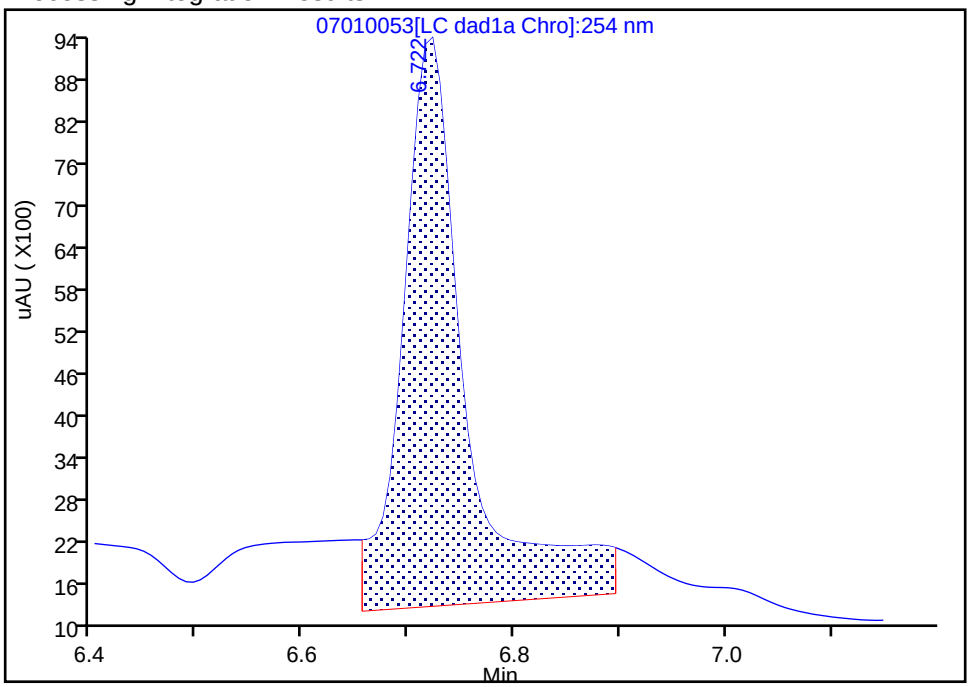
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

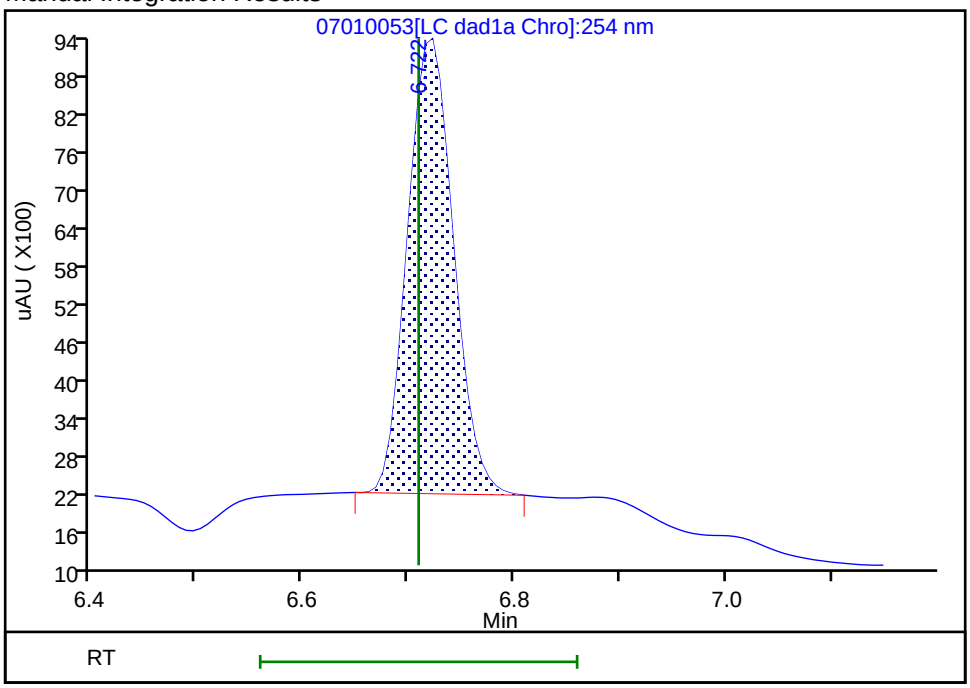
Processing Integration Results

RT: 6.72
Area: 33728
Amount: 0.392359
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 21548
Amount: 0.250668
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:34:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

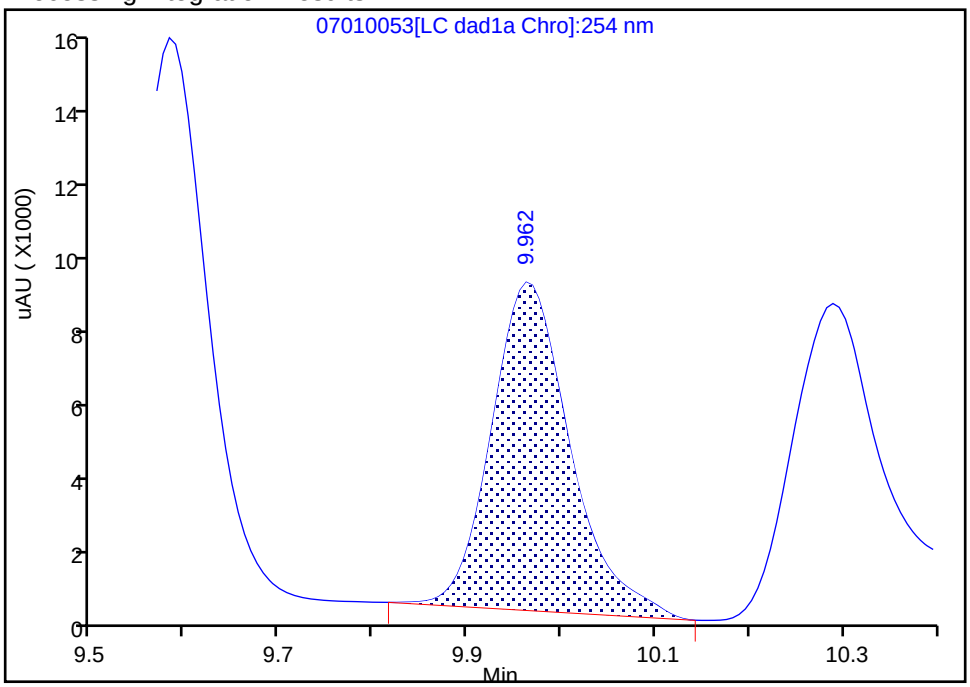
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

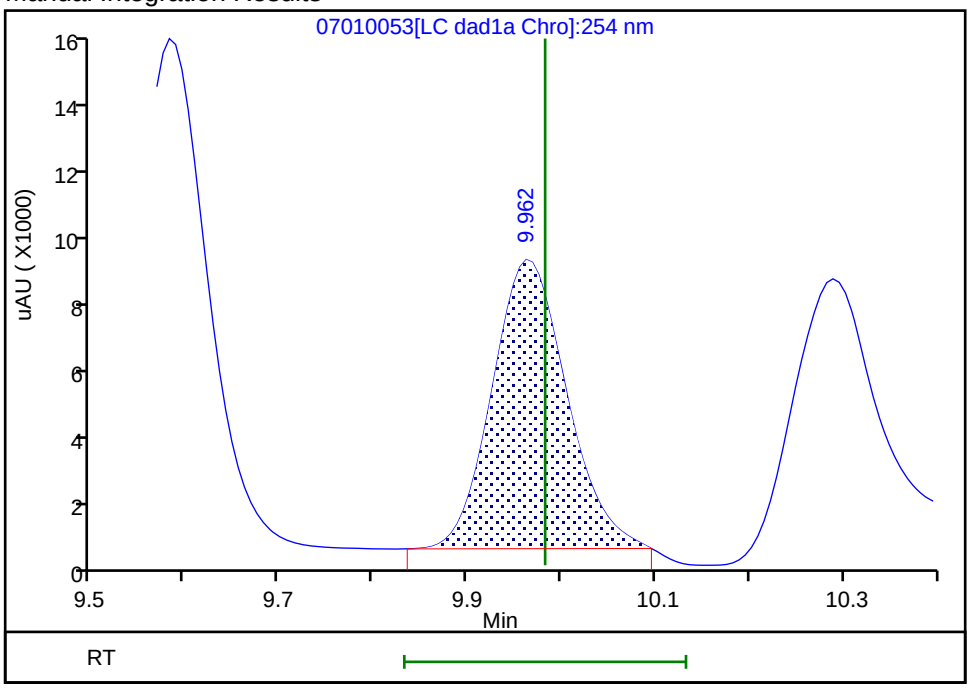
Processing Integration Results

RT: 9.96
Area: 51483
Amount: 0.256898
Amount Units: ug/mL



Manual Integration Results

RT: 9.96
Area: 47431
Amount: 0.236679
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:34:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

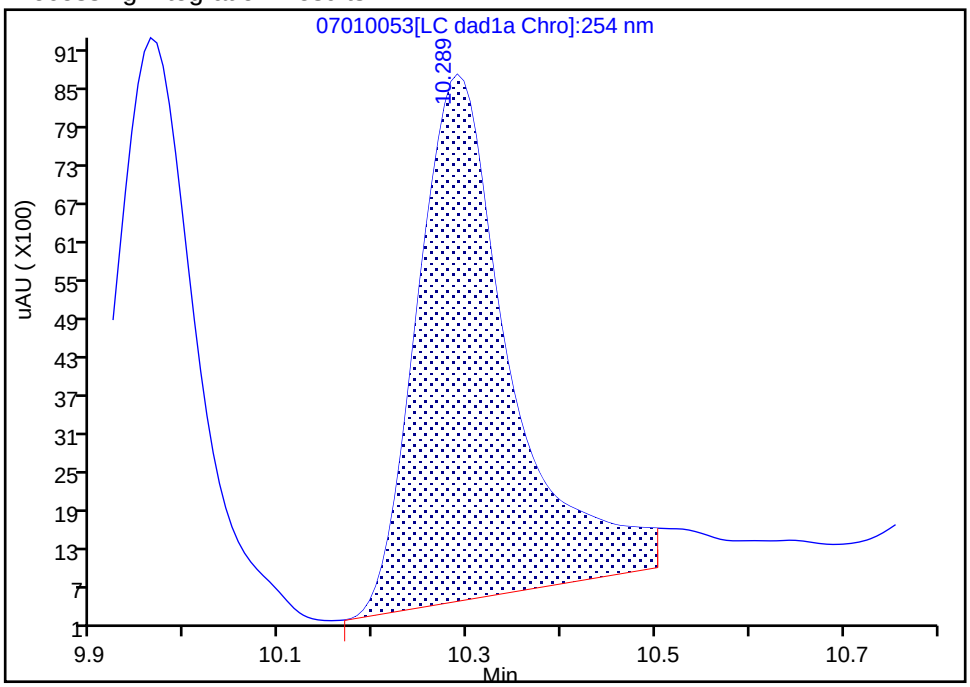
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 Tetryl, CAS: 479-45-8

Signal: 1

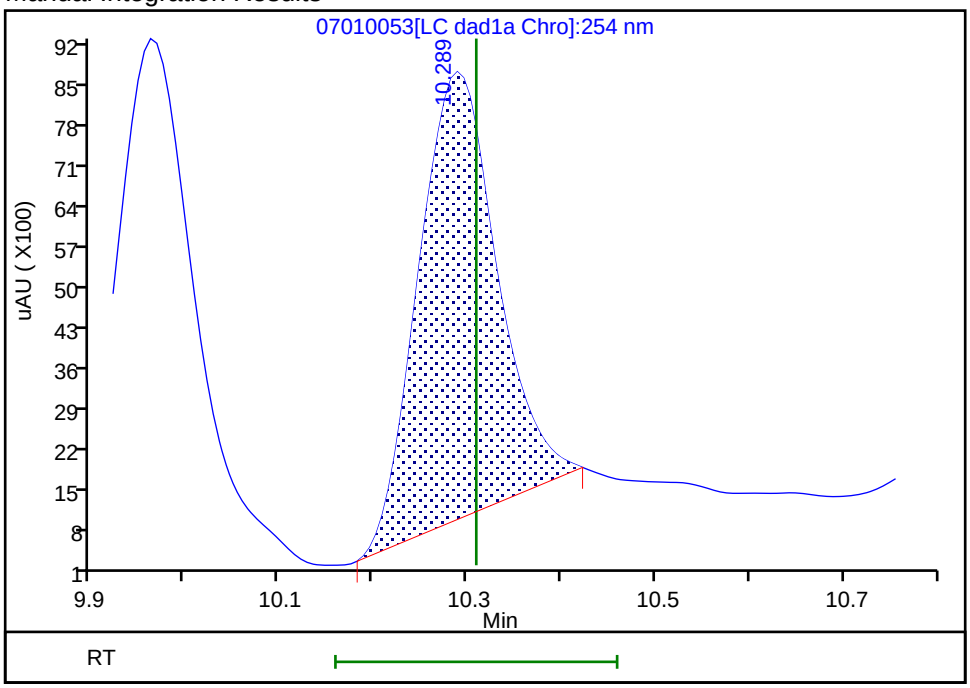
Processing Integration Results

RT: 10.29
Area: 56737
Amount: 0.320490
Amount Units: ug/mL



Manual Integration Results

RT: 10.29
Area: 45012
Amount: 0.254259
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:34:57
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

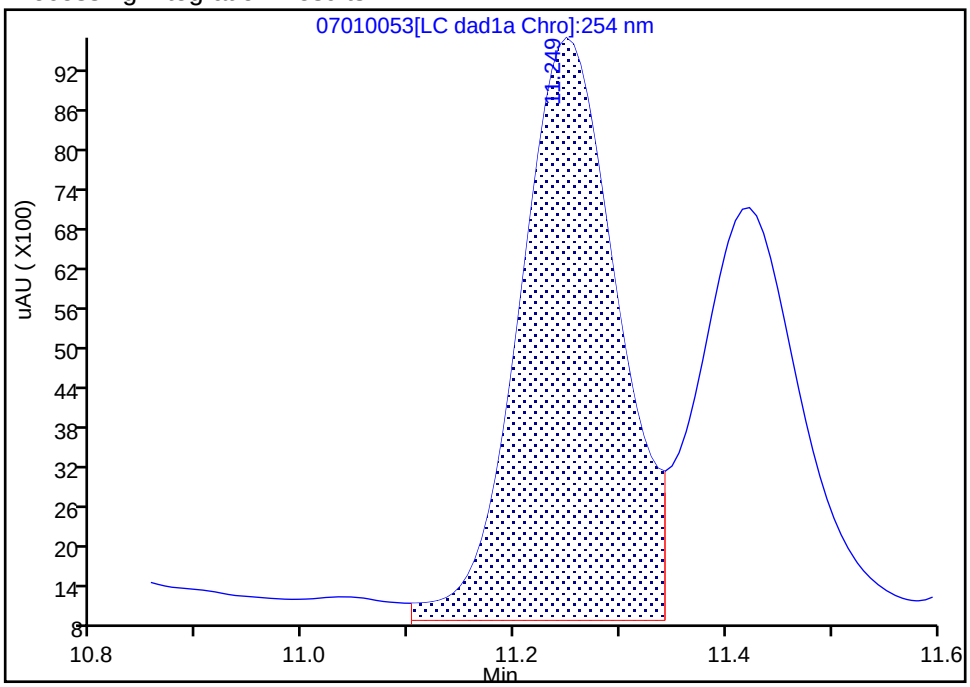
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

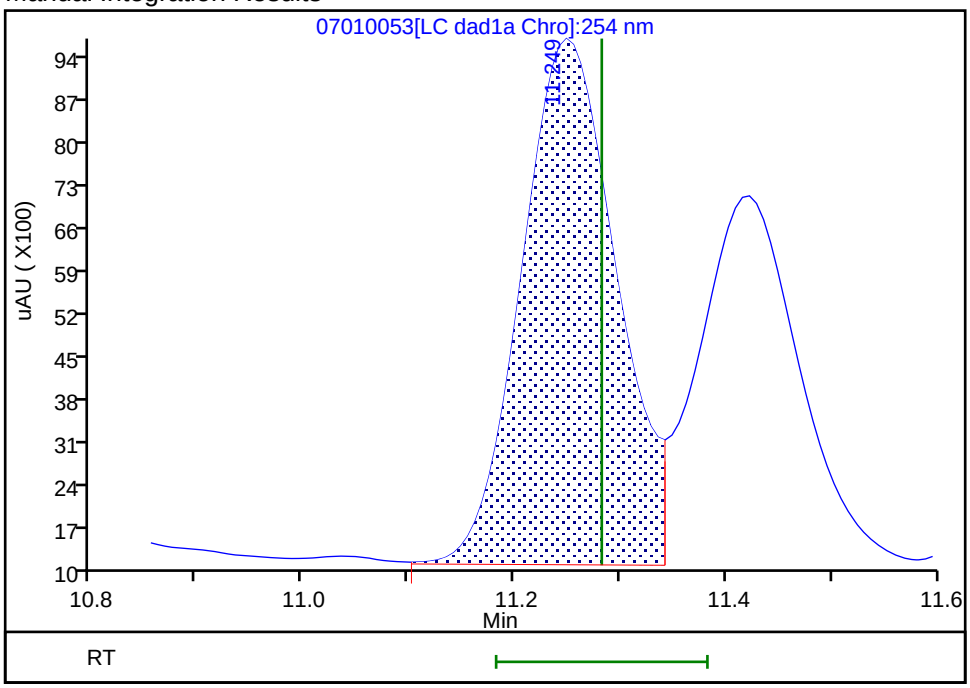
Processing Integration Results

RT: 11.25
Area: 56830
Amount: 0.278536
Amount Units: ug/mL



Manual Integration Results

RT: 11.25
Area: 53683
Amount: 0.263112
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

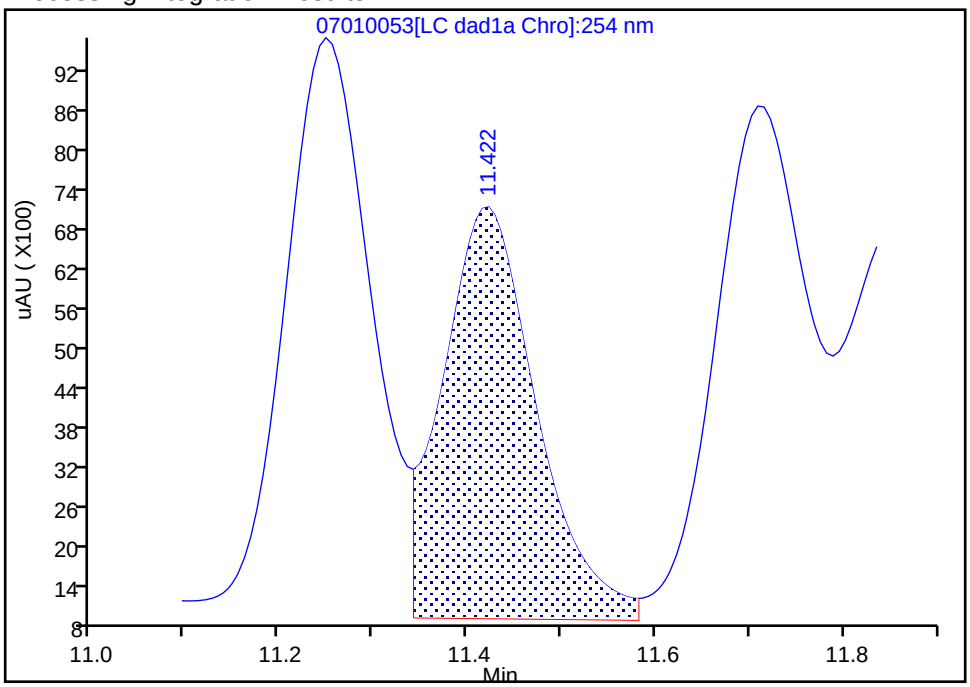
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

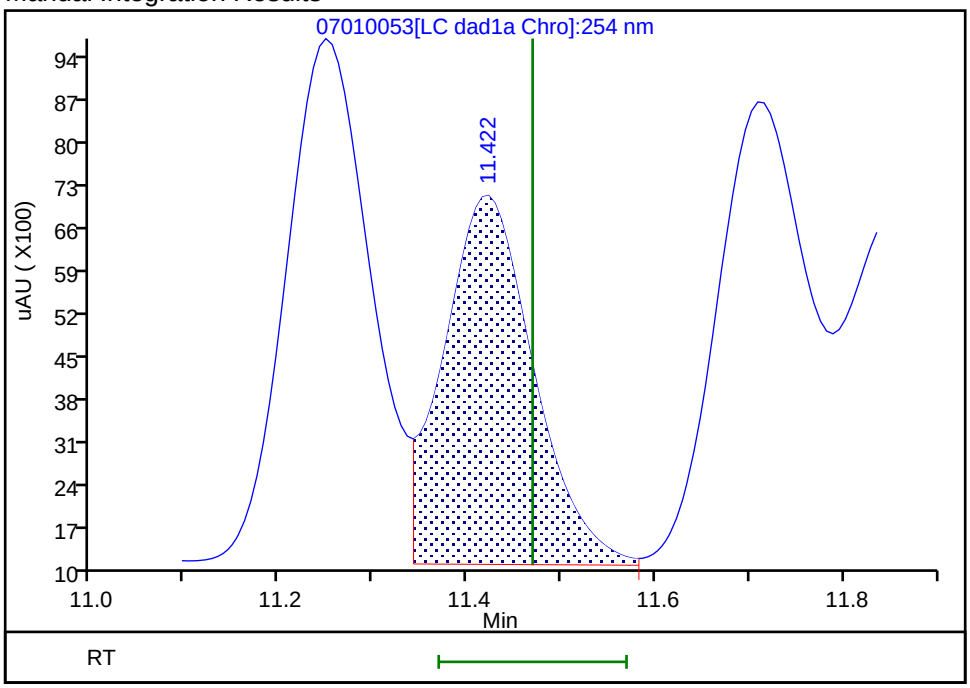
Processing Integration Results

RT: 11.42
Area: 43249
Amount: 0.248988
Amount Units: ug/mL



Manual Integration Results

RT: 11.42
Area: 40139
Amount: 0.231552
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

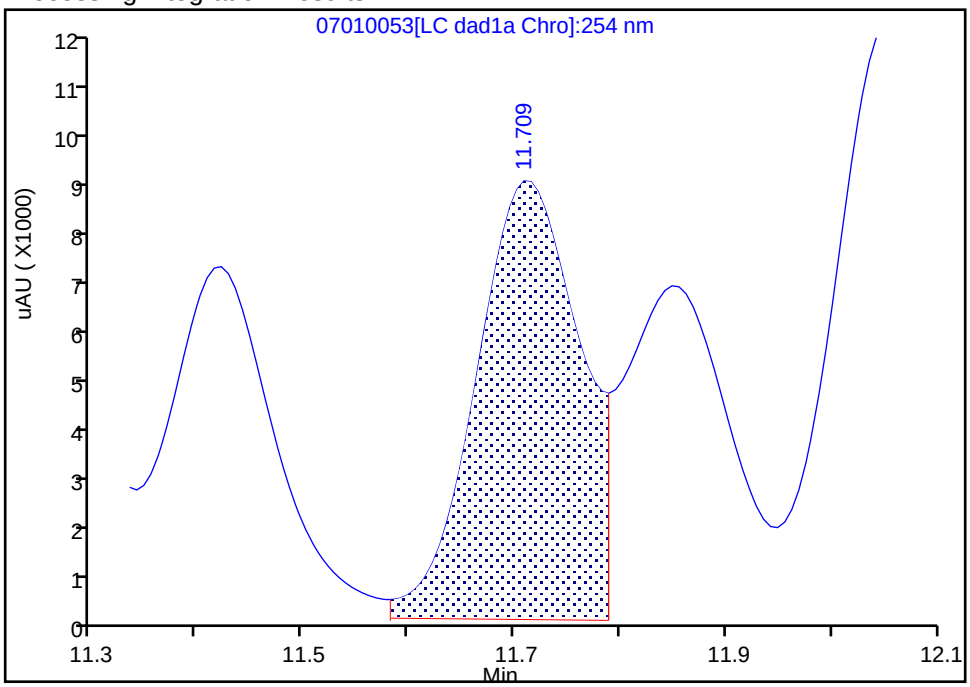
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

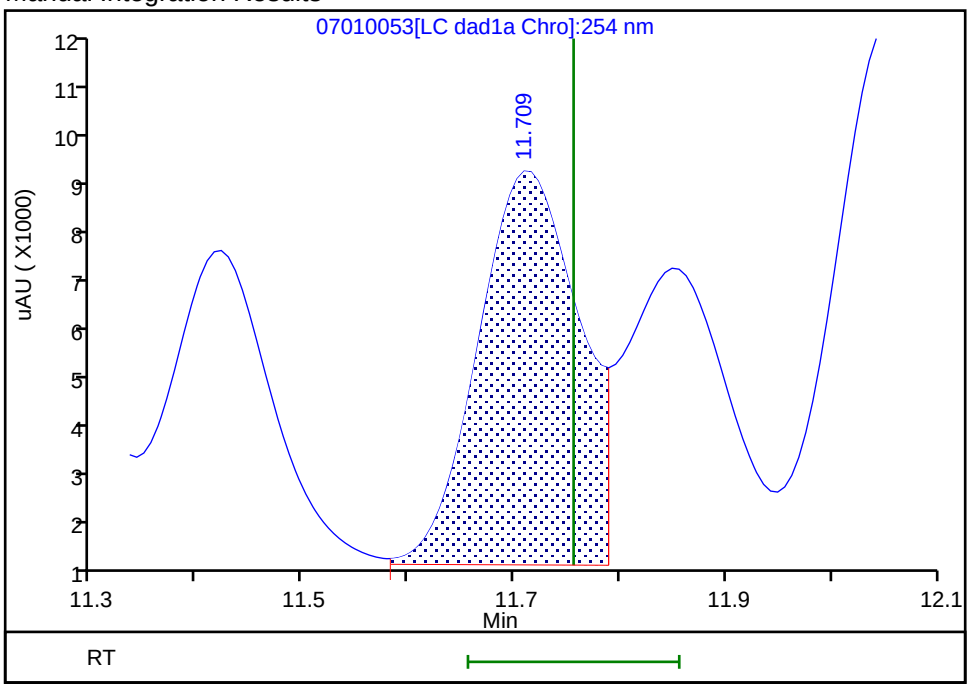
Processing Integration Results

RT: 11.71
Area: 53275
Amount: 0.262676
Amount Units: ug/mL



Manual Integration Results

RT: 11.71
Area: 50367
Amount: 0.248338
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

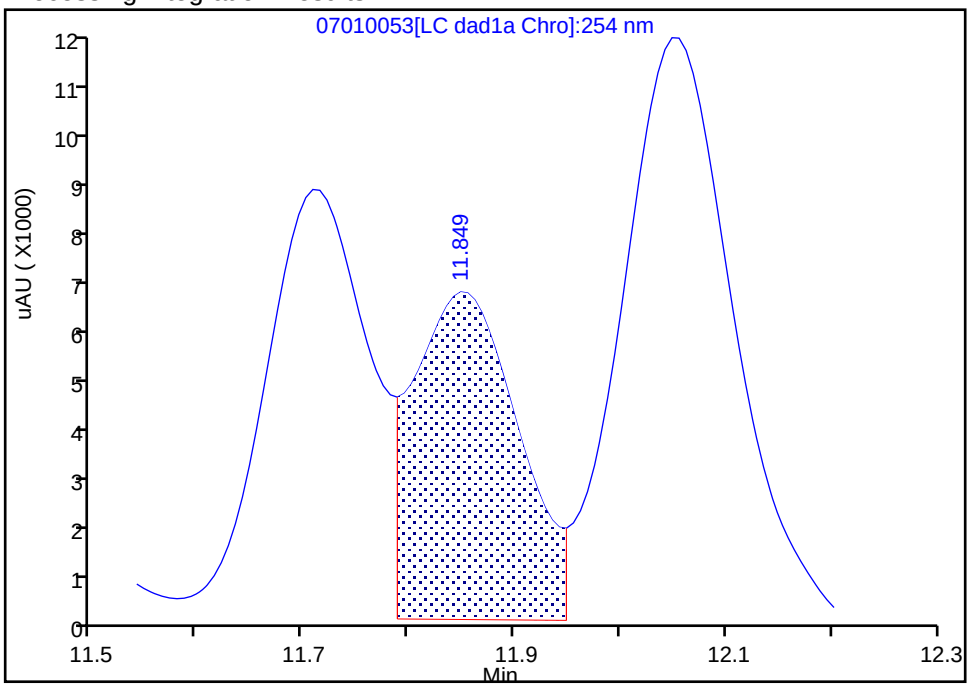
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

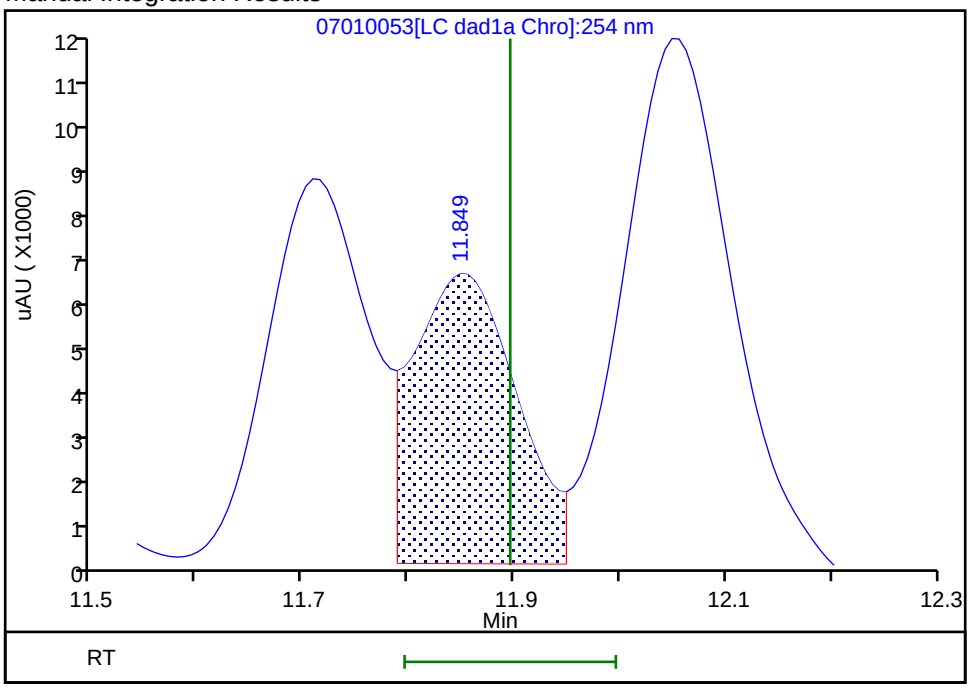
Processing Integration Results

RT: 11.85
Area: 40998
Amount: 0.274322
Amount Units: ug/mL



Manual Integration Results

RT: 11.85
Area: 38589
Amount: 0.258203
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

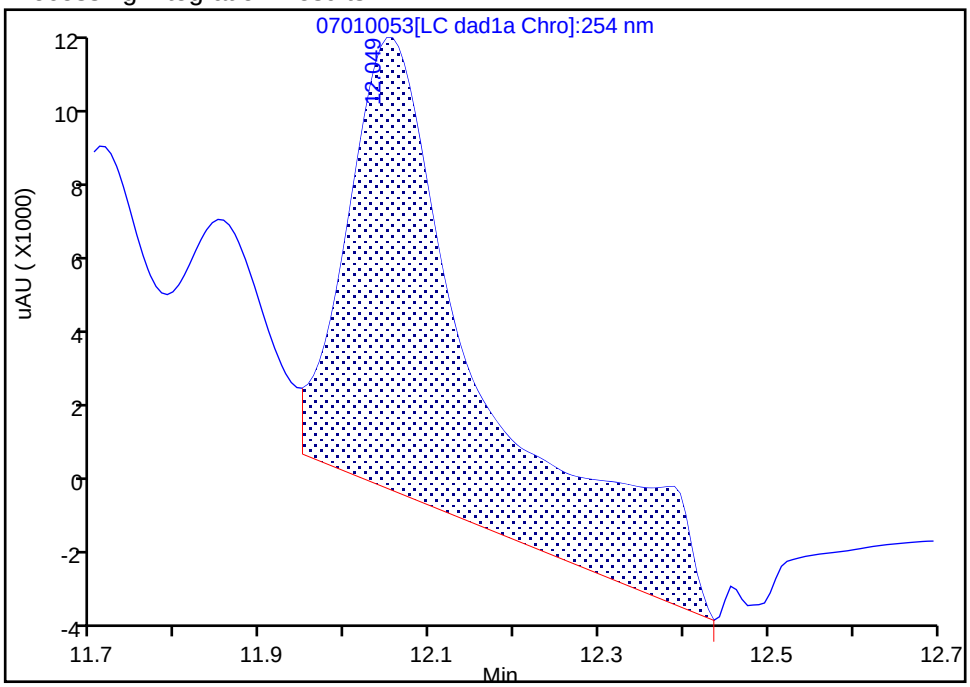
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

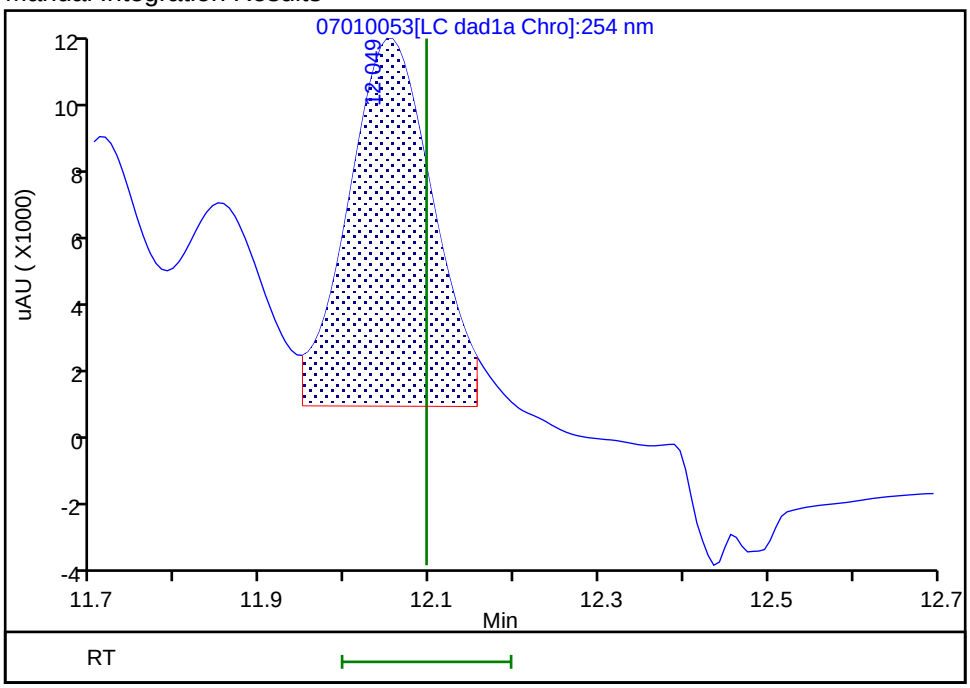
Processing Integration Results

RT: 12.05
Area: 126191
Amount: 0.415671
Amount Units: ug/mL



Manual Integration Results

RT: 12.05
Area: 71962
Amount: 0.237041
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:08
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

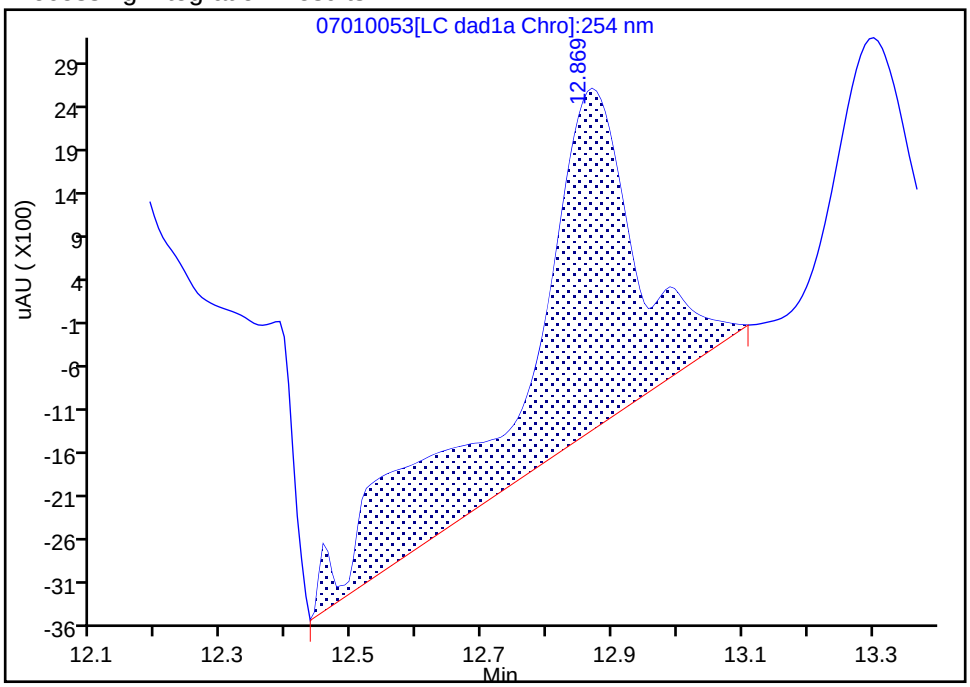
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

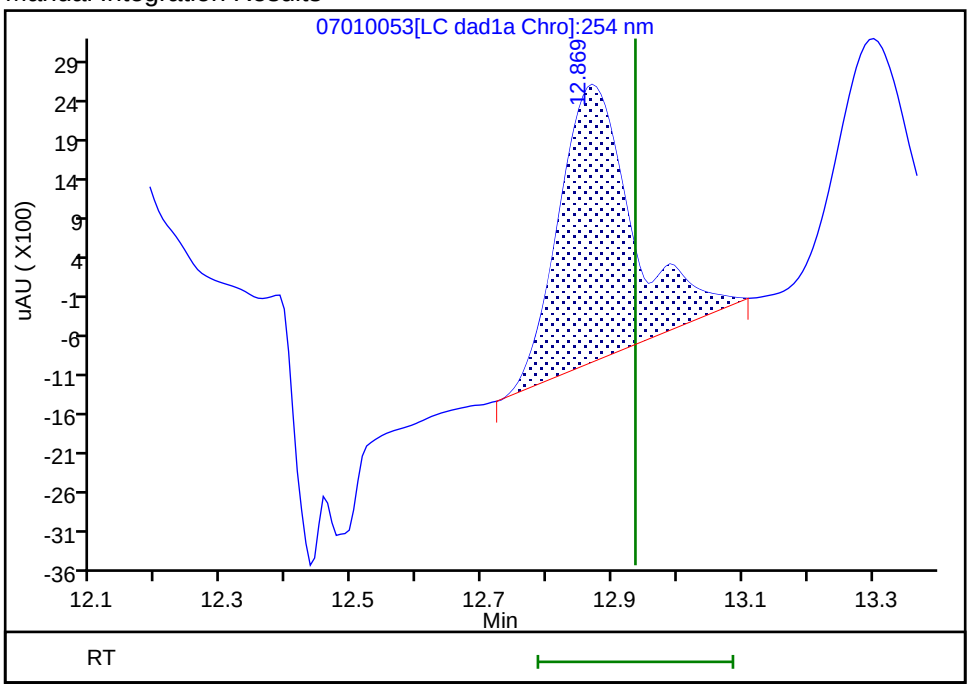
Processing Integration Results

RT: 12.87
Area: 48385
Amount: 0.358272
Amount Units: ug/mL



Manual Integration Results

RT: 12.87
Area: 27776
Amount: 0.205671
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 11:35:31

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

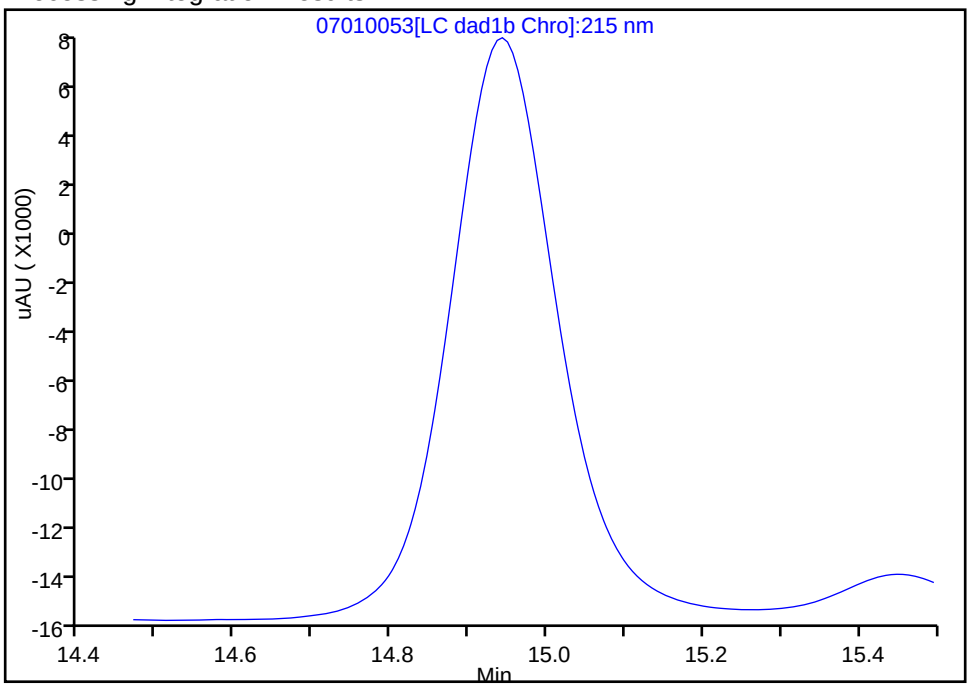
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010053.d				
Injection Date:	02-Jul-2020 10:53:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1C, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

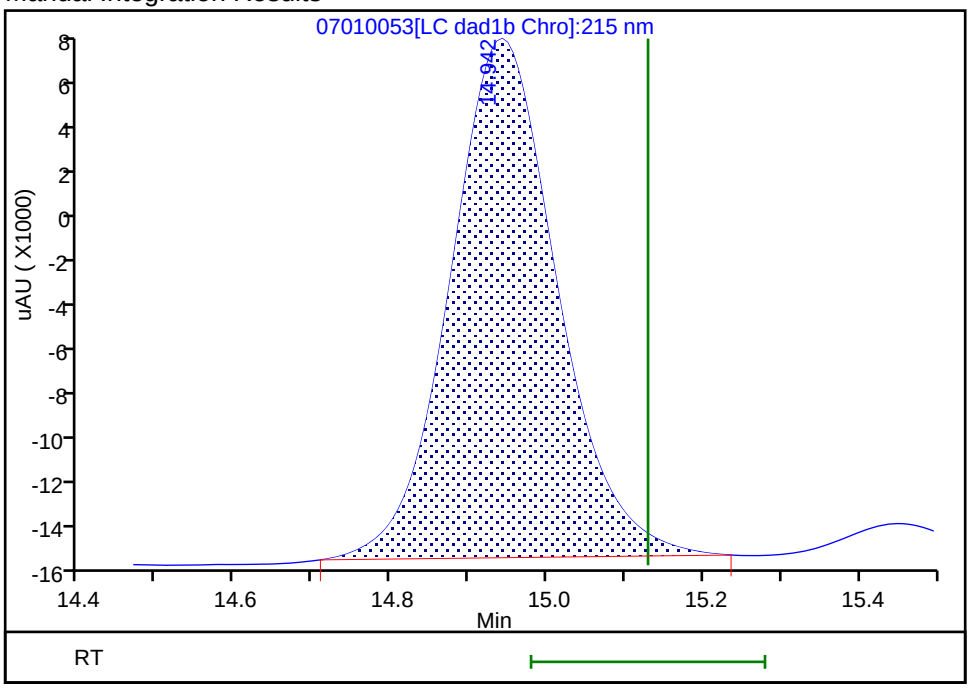
Not Detected
Expected RT: 15.13

Processing Integration Results



Manual Integration Results

RT:	14.94
Area:	209449
Amount:	2.664590
Amount Units:	ug/mL



Reviewer: zhangji, 02-Jul-2020 11:34:35
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/54 Calibration Date: 07/02/2020 11:16

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07010054.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	205746		237	250	-5.5	15.0
DNX	Ave	152928	151636		248	250	-0.8	15.0
MNX	Ave	158544	142125		262	292	-10.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500850/54 Calibration Date: 07/02/2020 11:16

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07010054.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.62	6.51	6.71
DNX	6.94	6.84	7.04
MNX	7.39	7.24	7.54

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010054.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 11:16:15	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092952-054				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:21	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				

First Level Reviewer: zhangji Date: 02-Jul-2020 13:10:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.622	6.609	0.013	51488	0.2503	0.2366	M
5 DNX	1	6.942	6.935	0.007	37947	0.2503	0.2481	M
6 MNX	1	7.389	7.389	0.000	41465	0.2918	0.2615	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

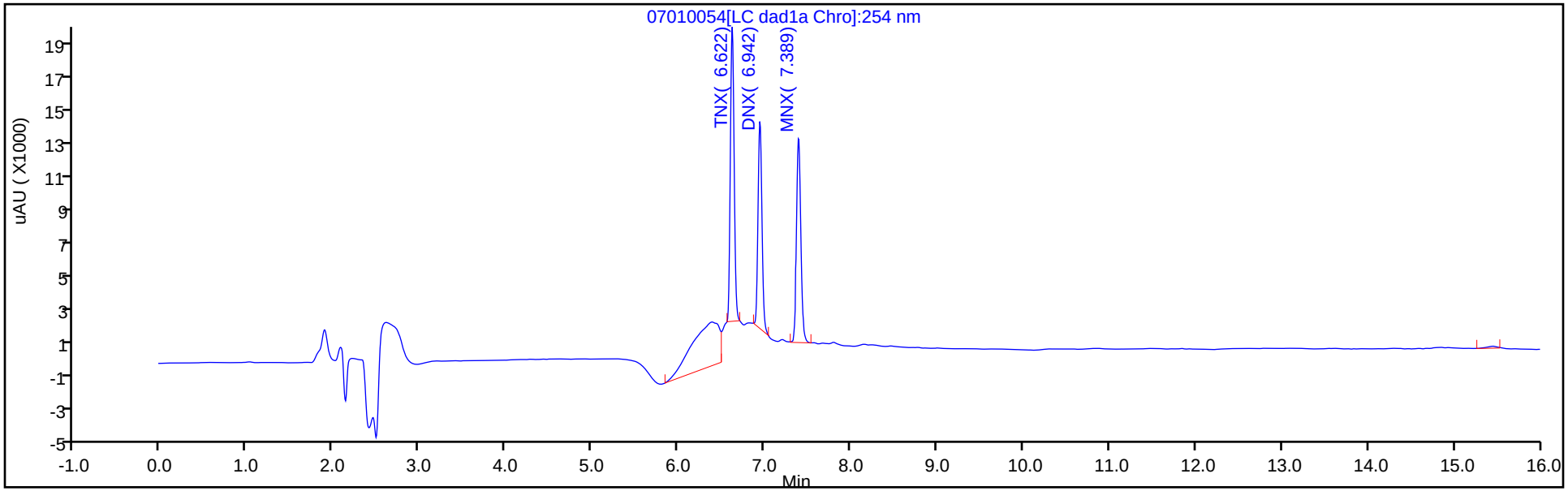
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Jul-2020 14:04:21 Chrom Revision: 2.3 21-Jun-2020 18:30:46

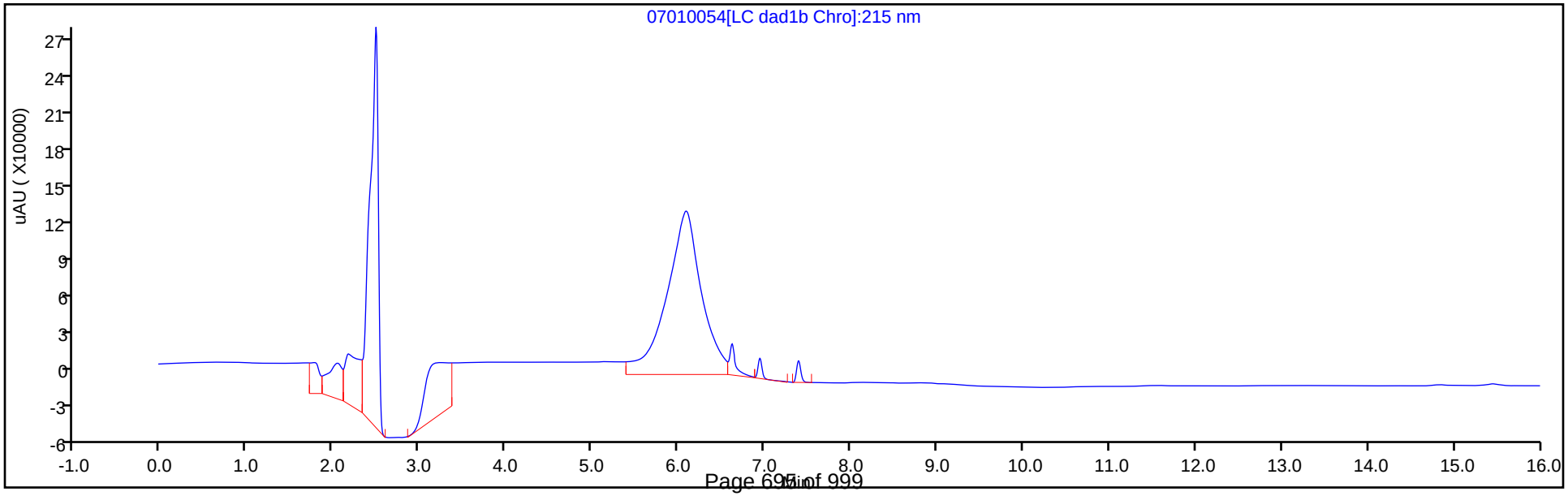
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010054.d				
Injection Date:	02-Jul-2020 11:16:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	54
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

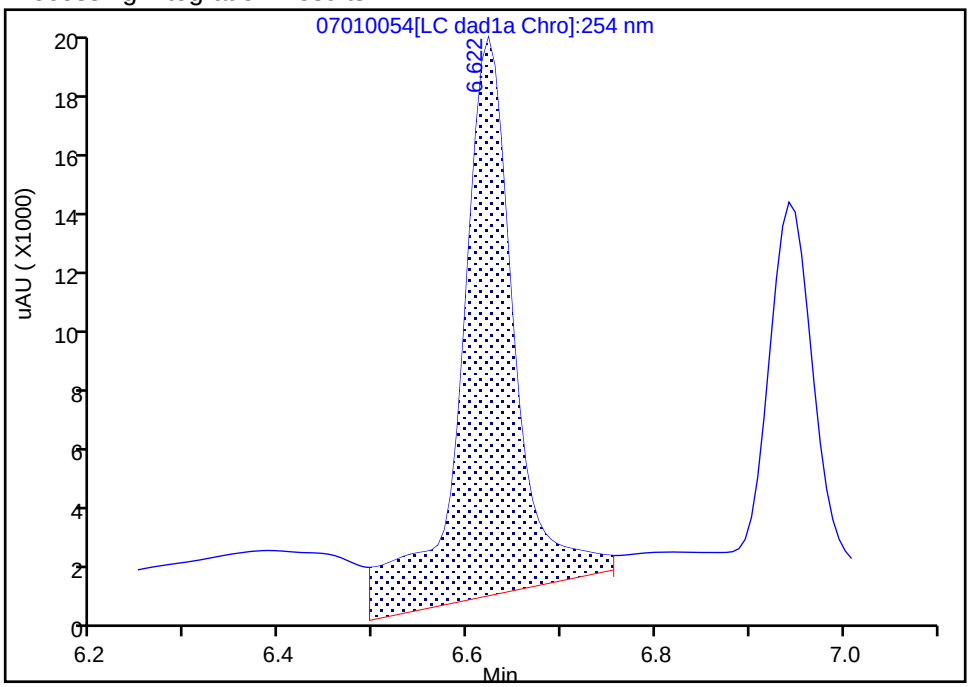
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010054.d				
Injection Date:	02-Jul-2020 11:16:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

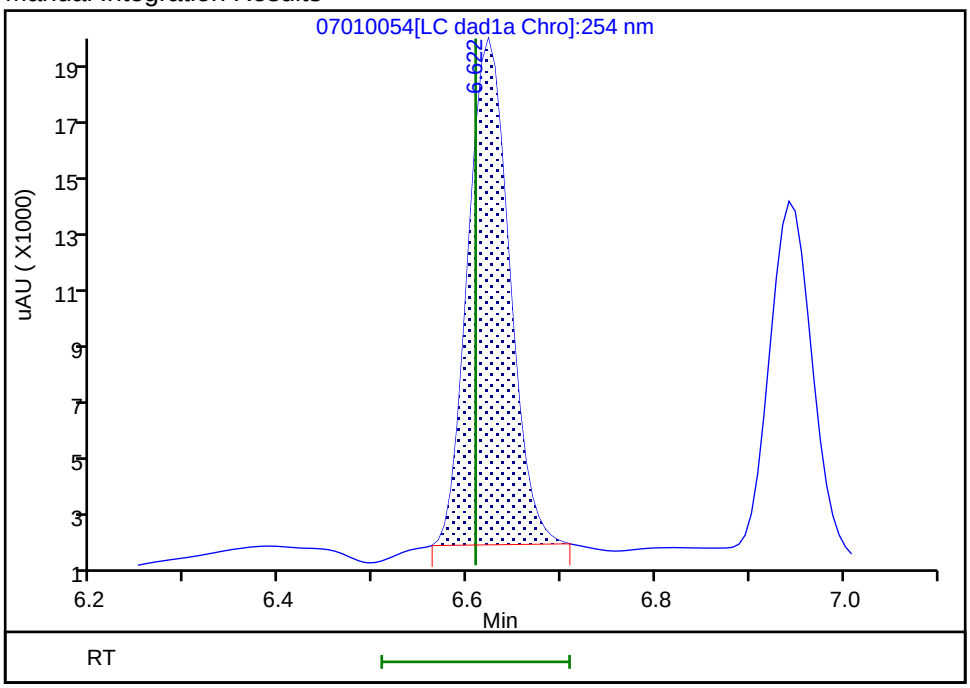
Processing Integration Results

RT: 6.62
Area: 73554
Amount: 0.338010
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 51488
Amount: 0.236608
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:10:41

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

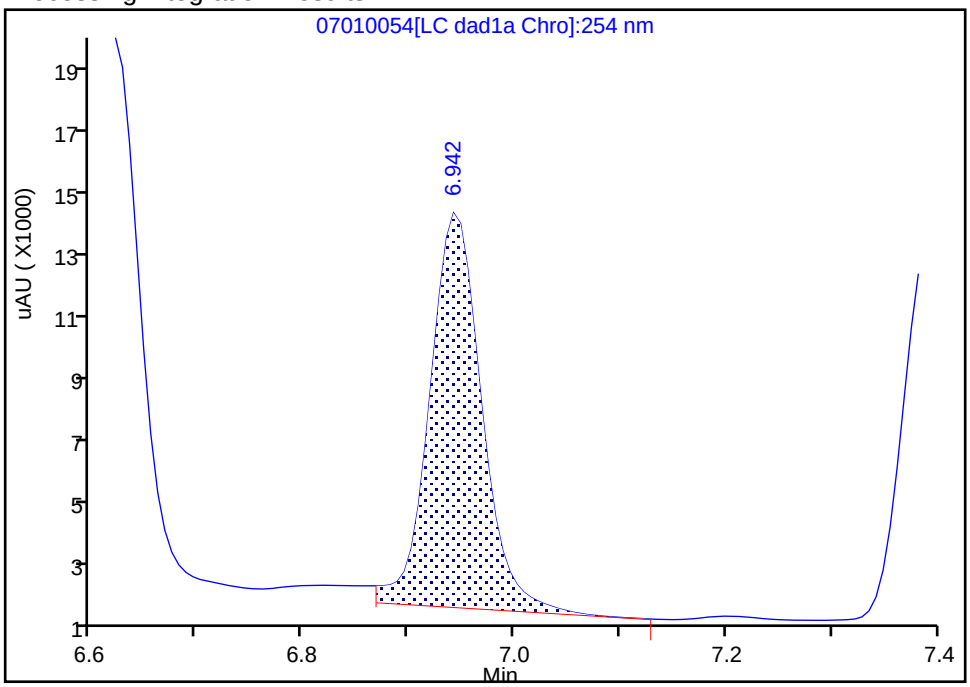
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010054.d				
Injection Date:	02-Jul-2020 11:16:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

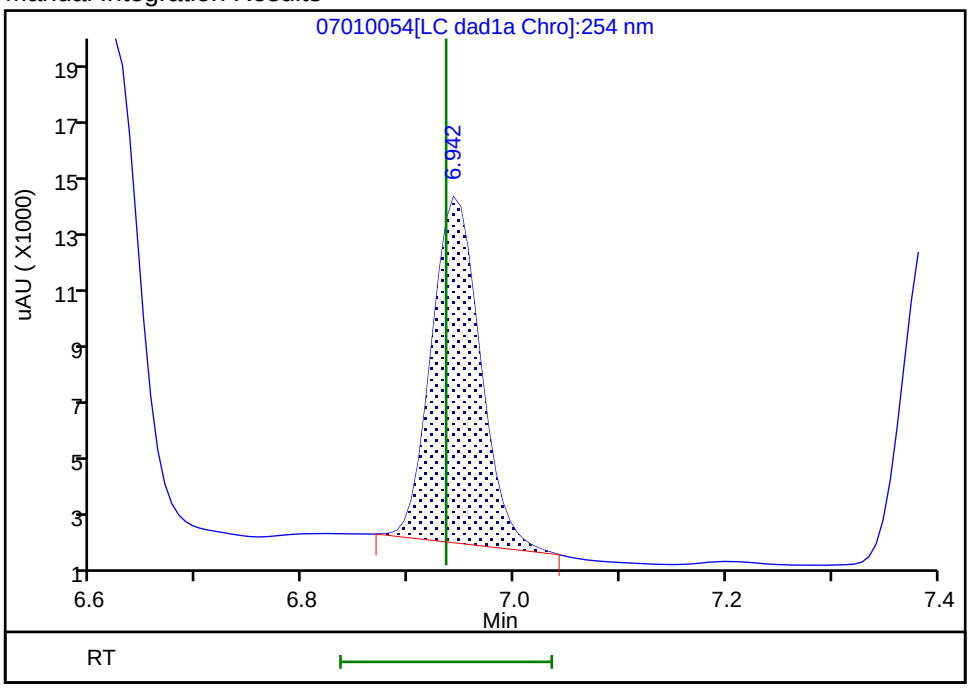
Processing Integration Results

RT: 6.94
Area: 41722
Amount: 0.272821
Amount Units: ug/mL



Manual Integration Results

RT: 6.94
Area: 37947
Amount: 0.248136
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:10:44
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/14 Calibration Date: 07/02/2020 19:39

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07020014.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	89624		261	250	4.3	15.0
RDX	Ave	116613	110980		238	250	-4.8	15.0
Picric acid	Ave	85131	84872		249	250	-0.3	15.0
1,3,5-Trinitrobenzene	Ave	230309	241944		263	251	5.1	15.0
1,3-Dinitrobenzene	Ave	306686	319042		261	251	4.0	15.0
Nitrobenzene	Ave	200403	202637		254	251	1.1	15.0
Tetryl	Ave	177032	178000		252	251	0.5	15.0
Nitroglycerin	Ave	68133	74002		2720	2500	8.6	15.0
2,4,6-Trinitrotoluene	Ave	204031	206570		254	251	1.2	15.0
4-Amino-2,6-dinitrotoluene	Lin2		166869		241	250	-3.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	210036		260	251	3.6	15.0
2,6-Dinitrotoluene	Ave	149452	161052		270	251	7.8	15.0
2,4-Dinitrotoluene	Ave	303584	260442		215	251	-14.2	15.0
2-Nitrotoluene	Ave	135051	119252		221	250	-11.7	15.0
4-Nitrotoluene	Ave	113005	110439		245	251	-2.3	15.0
3-Nitrotoluene	Ave	143029	139784		245	250	-2.3	15.0
PETN	Ave	78605	89468		2850	2500	13.8	15.0
1,2-Dinitrobenzene	Ave	138212	144348		261	250	4.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/14 Calibration Date: 07/02/2020 19:39

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07020014.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.71	6.56	6.86
RDX	7.78	7.62	7.92
Picric acid	8.09	7.93	8.23
1,3,5-Trinitrobenzene	8.92	8.76	9.06
1,3-Dinitrobenzene	9.56	9.41	9.71
Nitrobenzene	9.94	9.78	10.08
Tetryl	10.25	10.10	10.40
Nitroglycerin	10.76	10.61	10.91
2,4,6-Trinitrotoluene	11.22	11.11	11.31
4-Amino-2,6-dinitrotoluene	11.39	11.28	11.48
2-Amino-4,6-dinitrotoluene	11.68	11.57	11.77
2,6-Dinitrotoluene	11.81	11.71	11.91
2,4-Dinitrotoluene	12.01	11.91	12.11
2-Nitrotoluene	12.83	12.68	12.98
4-Nitrotoluene	13.27	13.12	13.42
3-Nitrotoluene	13.85	13.70	14.00
PETN	14.95	14.81	15.11
1,2-Dinitrobenzene	8.74	8.58	8.88

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020014.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 02-Jul-2020 19:39:57 ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092988-014
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 03-Jul-2020 11:09:12 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1025

First Level Reviewer: zhangji Date: 03-Jul-2020 10:22:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.708	6.706	0.002	22406	0.2500	0.2606	
7 RDX	1	7.781	7.773	0.008	27745	0.2500	0.2379	
8 2,4,6-Trinitrophenol	1	8.088	8.080	0.008	21218	0.2500	0.2492	
$ 9 1,2-Dinitrobenzene	1	8.741	8.733	0.008	36087	0.2500	0.2611	
10 1,3,5-Trinitrobenzene	1	8.915	8.906	0.009	60607	0.2505	0.2632	
11 1,3-Dinitrobenzene	1	9.561	9.559	0.002	79920	0.2505	0.2606	
12 Nitrobenzene	1	9.941	9.933	0.008	50862	0.2510	0.2538	
14 Tetryl	1	10.248	10.246	0.002	44589	0.2505	0.2519	M
15 Nitroglycerin	2	10.761	10.759	0.002	185004	2.50	2.72	M
16 2,4,6-Trinitrotoluene	1	11.215	11.213	0.002	51849	0.2510	0.2541	M
17 4-Amino-2,6-dinitrotoluene	1	11.388	11.379	0.009	41759	0.2503	0.2406	M
18 2-Amino-4,6-dinitrotoluene	1	11.675	11.666	0.009	52719	0.2510	0.2599	M
19 2,6-Dinitrotoluene	1	11.808	11.806	0.002	40424	0.2510	0.2705	M
20 2,4-Dinitrotoluene	1	12.008	12.006	0.002	65371	0.2510	0.2153	M
21 o-Nitrotoluene	1	12.828	12.826	0.002	29813	0.2500	0.2208	M
22 p-Nitrotoluene	1	13.268	13.266	0.002	27665	0.2505	0.2448	M
23 m-Nitrotoluene	1	13.848	13.853	-0.005	34981	0.2503	0.2446	M
24 PETN	2	14.948	14.959	-0.011	223671	2.50	2.85	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

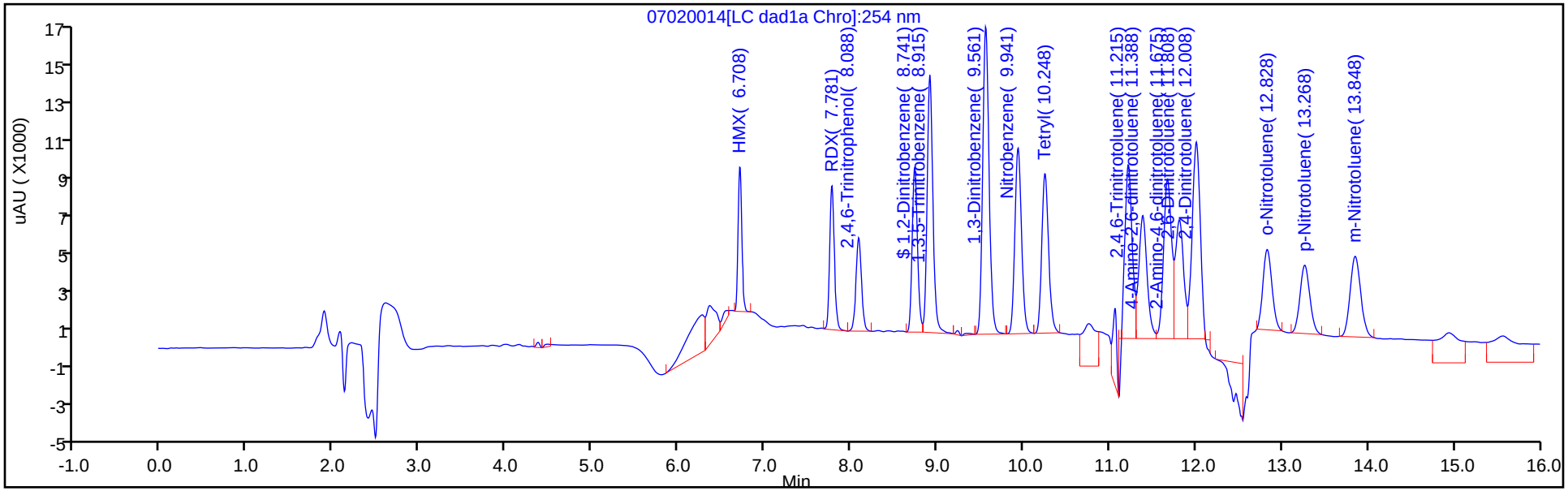
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 03-Jul-2020 11:09:13 Chrom Revision: 2.3 21-Jun-2020 18:30:46

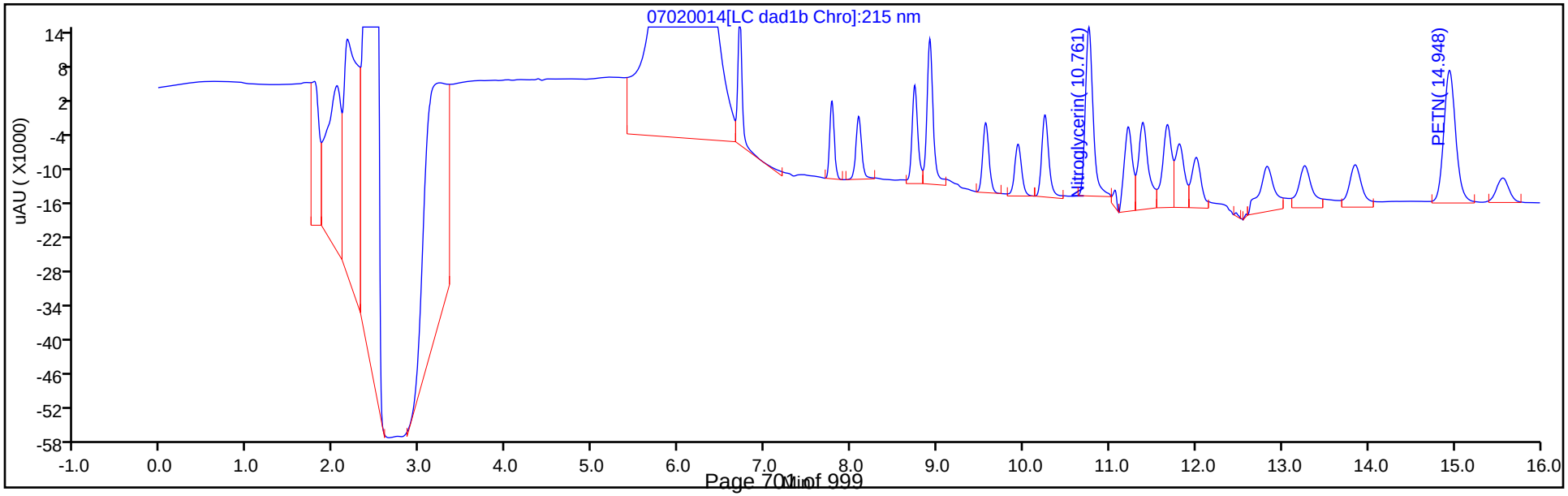
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

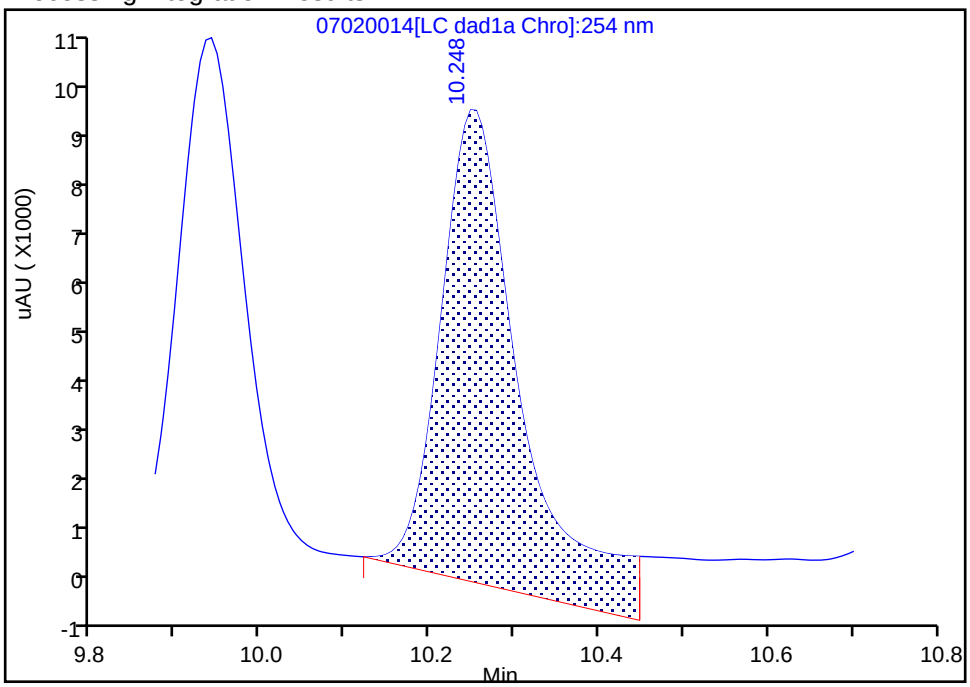
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 Tetryl, CAS: 479-45-8

Signal: 1

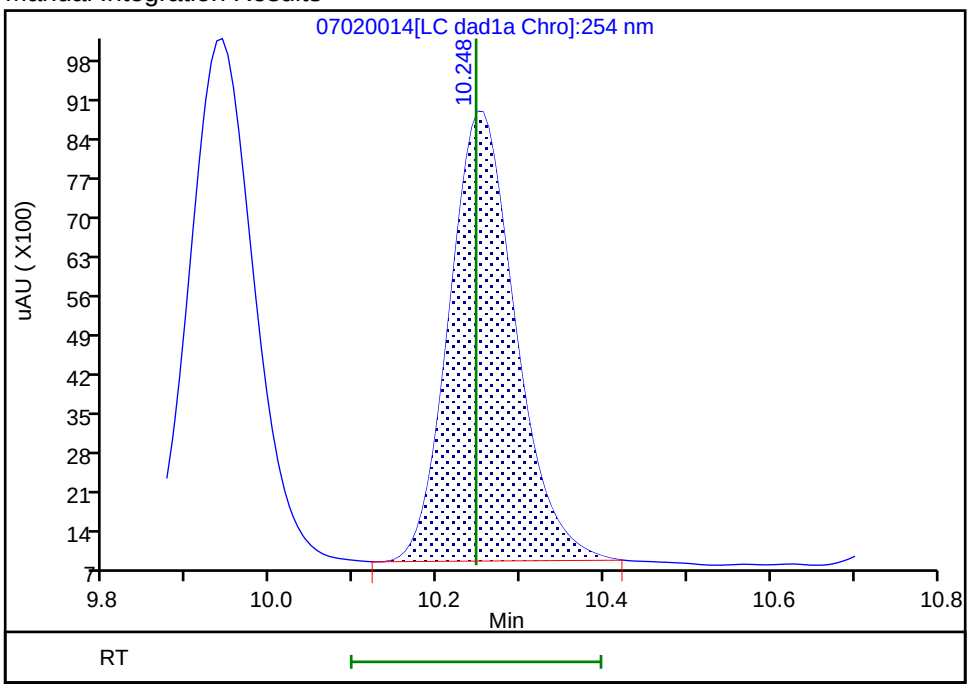
Processing Integration Results

RT: 10.25
Area: 56137
Amount: 0.317101
Amount Units: ug/mL



Manual Integration Results

RT: 10.25
Area: 44589
Amount: 0.251870
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:17:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

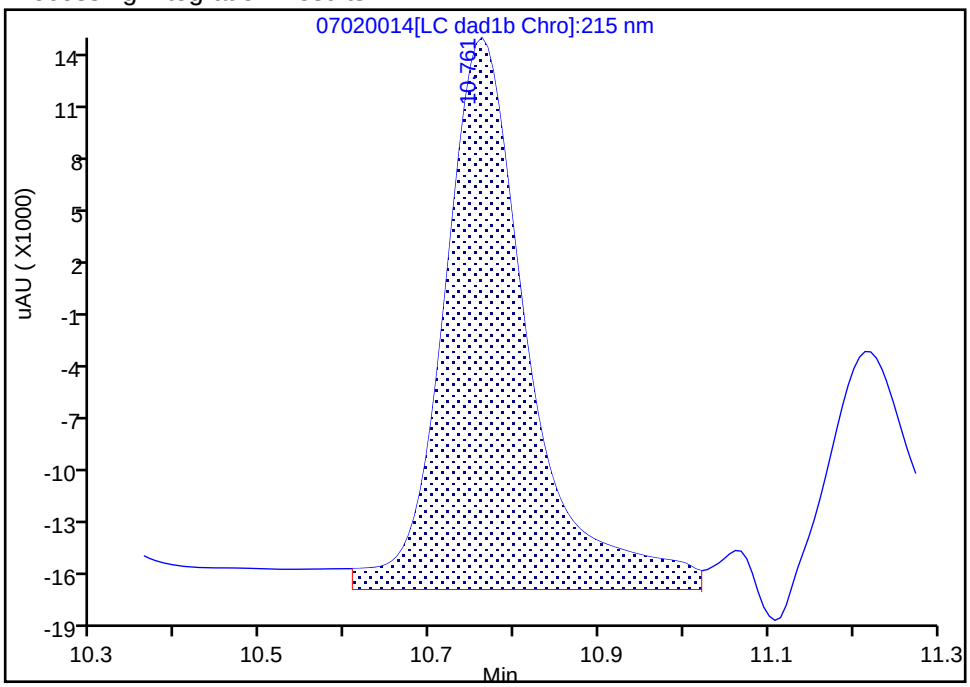
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1C, 215 nm		

15 Nitroglycerin, CAS: 55-63-0

Signal: 1

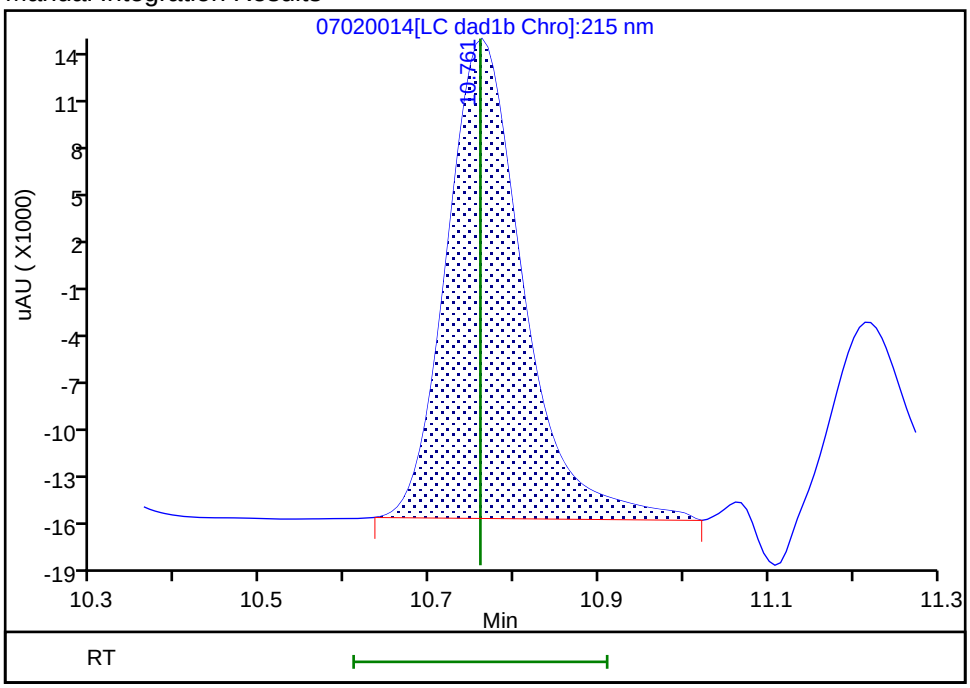
Processing Integration Results

RT: 10.76
Area: 213024
Amount: 3.126569
Amount Units: ug/mL



Manual Integration Results

RT: 10.76
Area: 185004
Amount: 2.715318
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:22:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

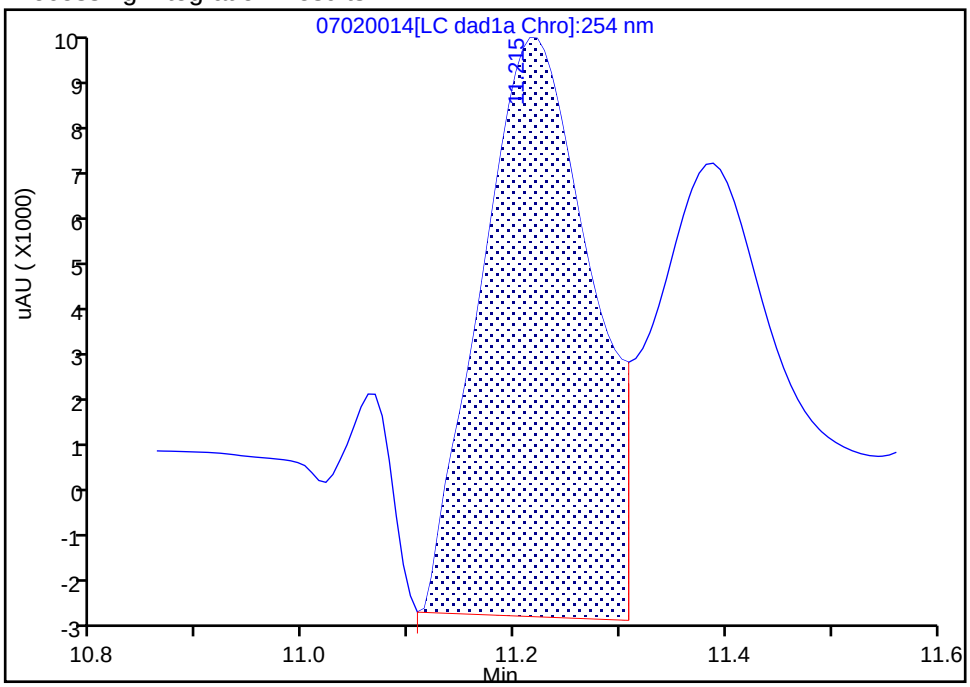
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

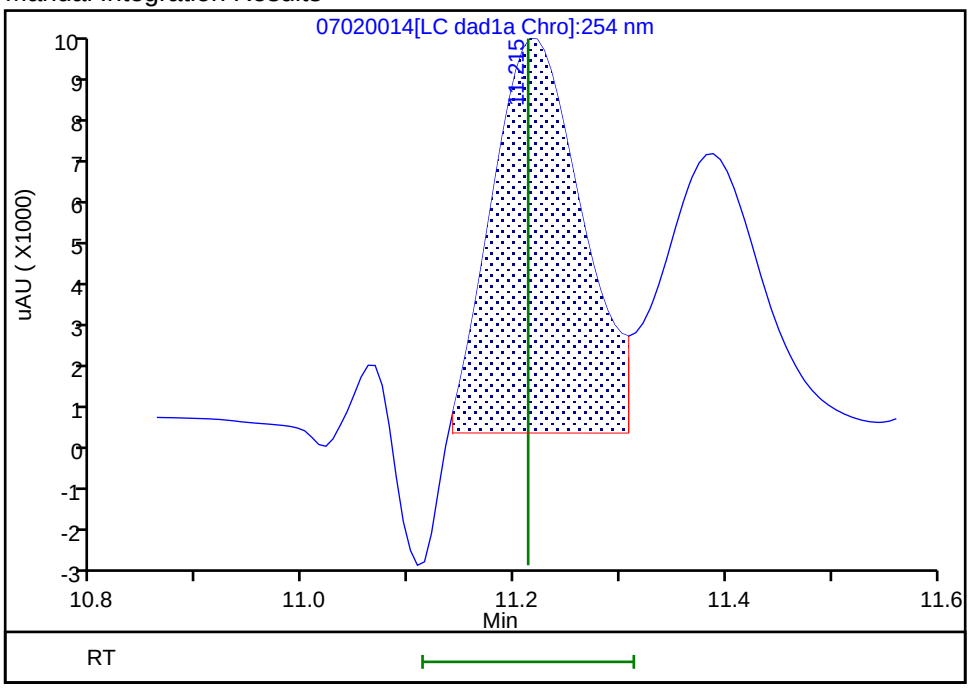
Processing Integration Results

RT: 11.21
Area: 85033
Amount: 0.416765
Amount Units: ug/mL



Manual Integration Results

RT: 11.21
Area: 51849
Amount: 0.254123
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:24:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

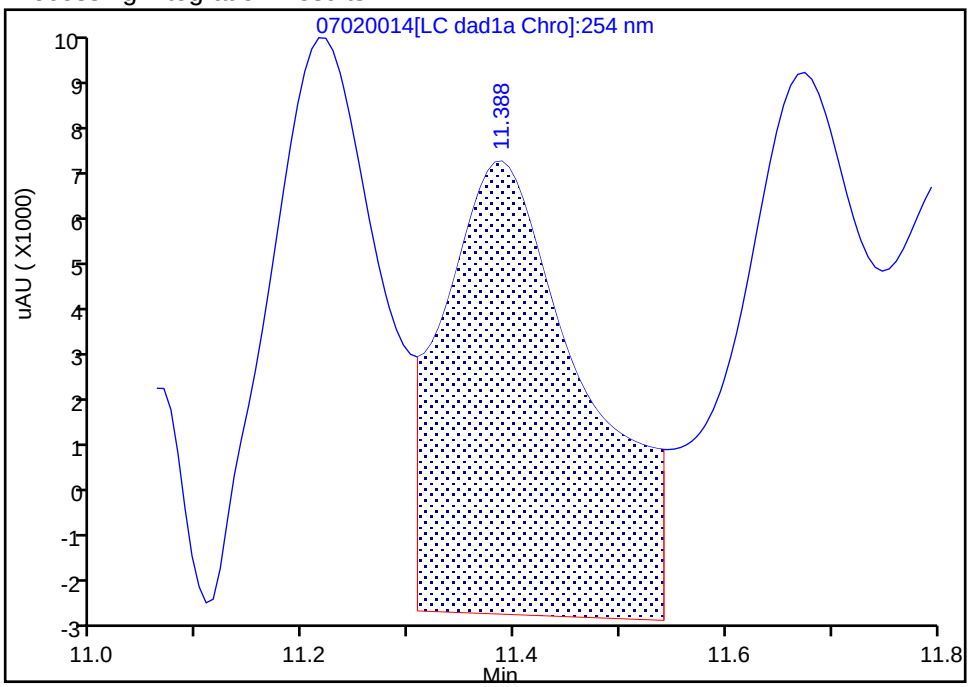
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

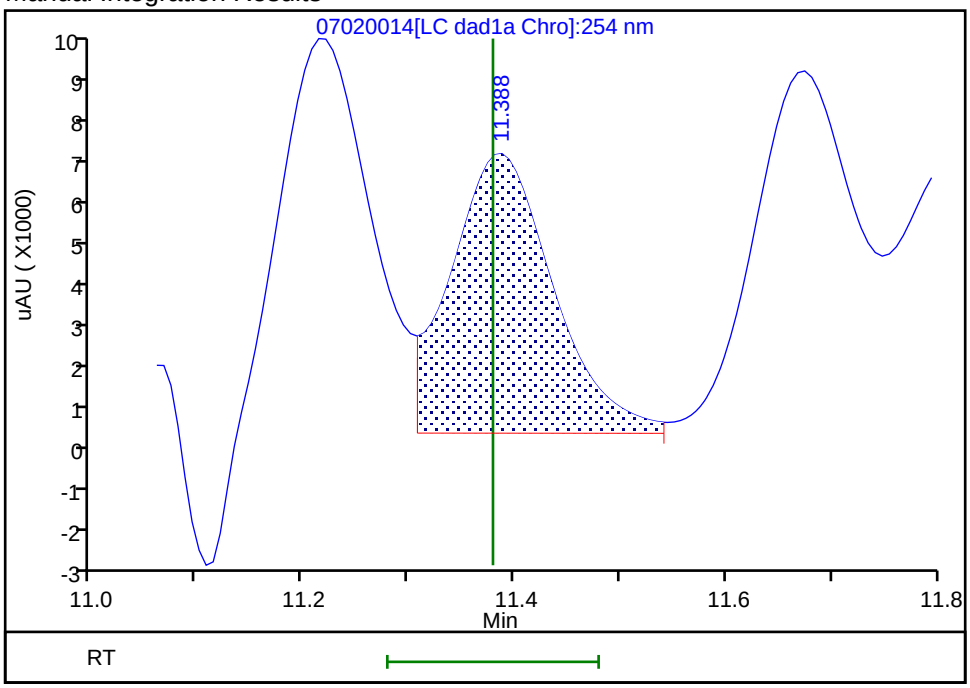
Processing Integration Results

RT: 11.39
Area: 86650
Amount: 0.492304
Amount Units: ug/mL



Manual Integration Results

RT: 11.39
Area: 41759
Amount: 0.240634
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:24:40

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

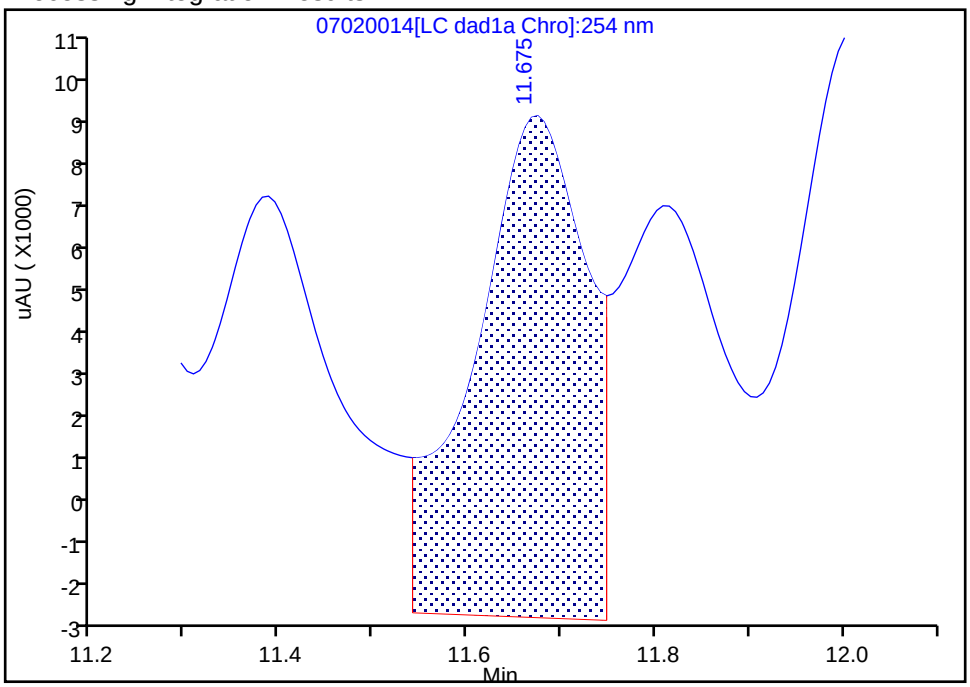
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

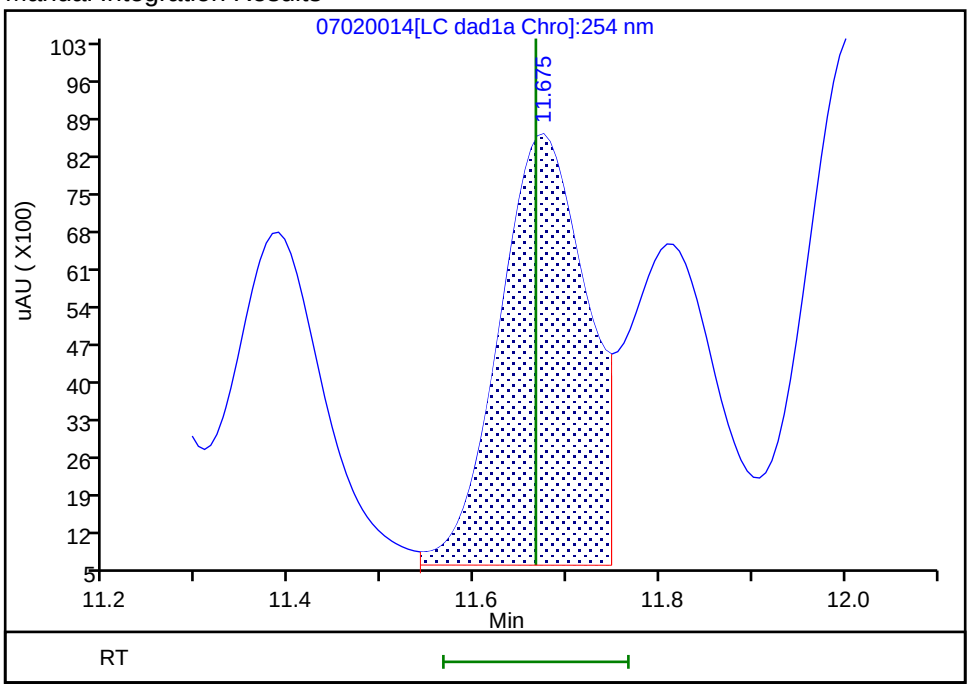
Processing Integration Results

RT: 11.67
Area: 94711
Amount: 0.466978
Amount Units: ug/mL



Manual Integration Results

RT: 11.67
Area: 52719
Amount: 0.259934
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:24:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

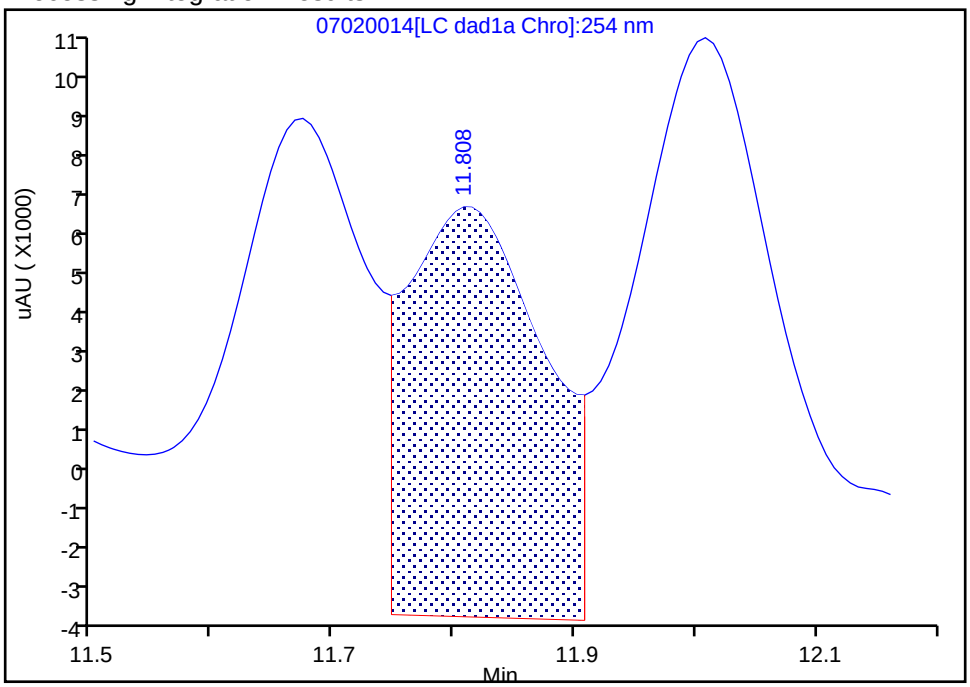
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

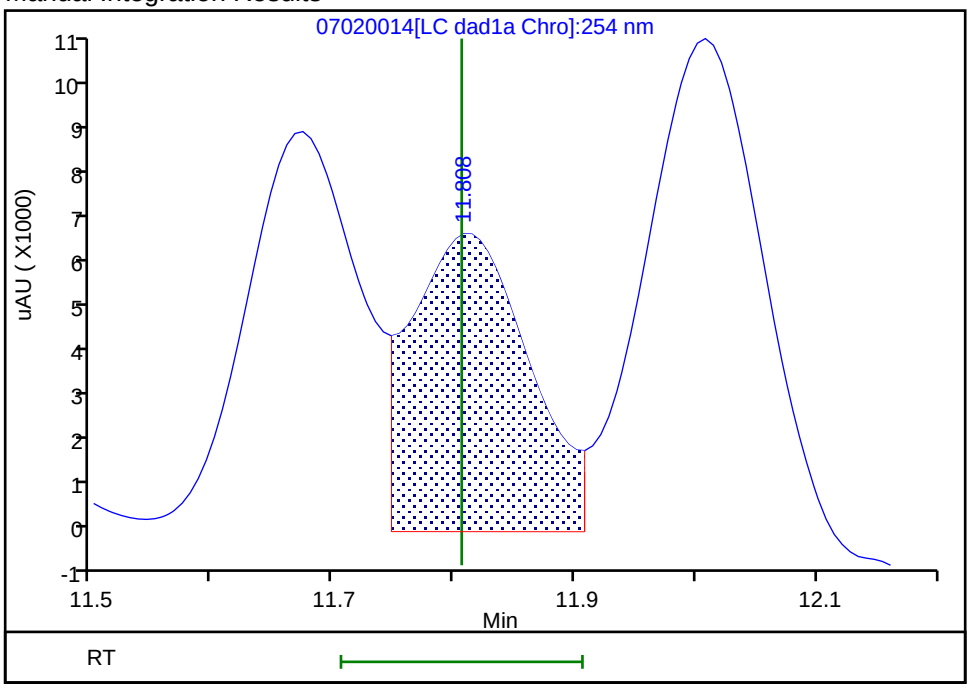
Processing Integration Results

RT: 11.81
Area: 74379
Amount: 0.497677
Amount Units: ug/mL



Manual Integration Results

RT: 11.81
Area: 40424
Amount: 0.270481
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:24:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

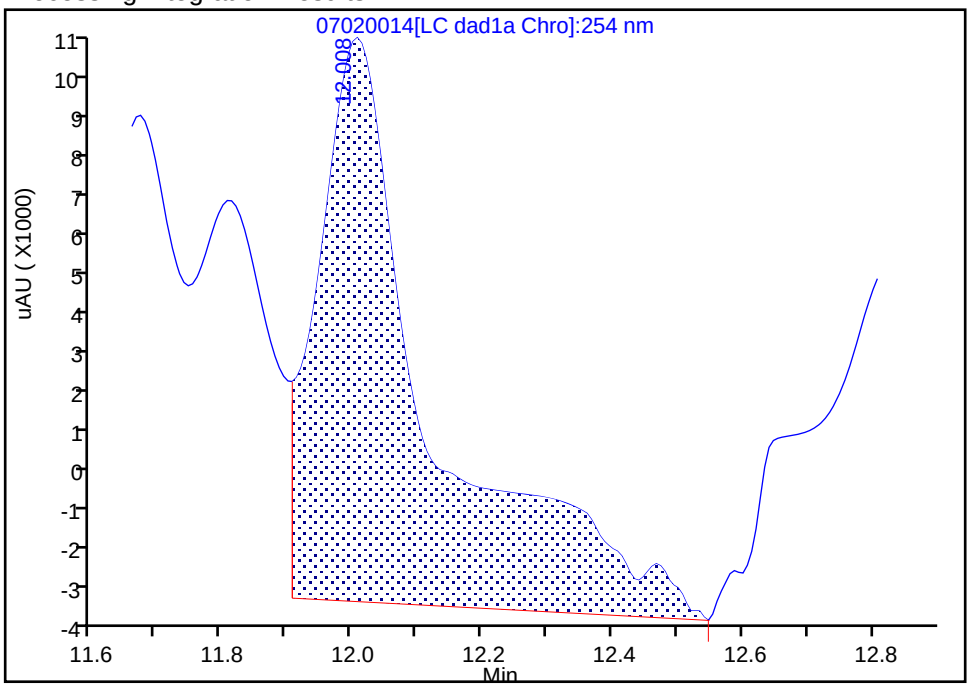
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

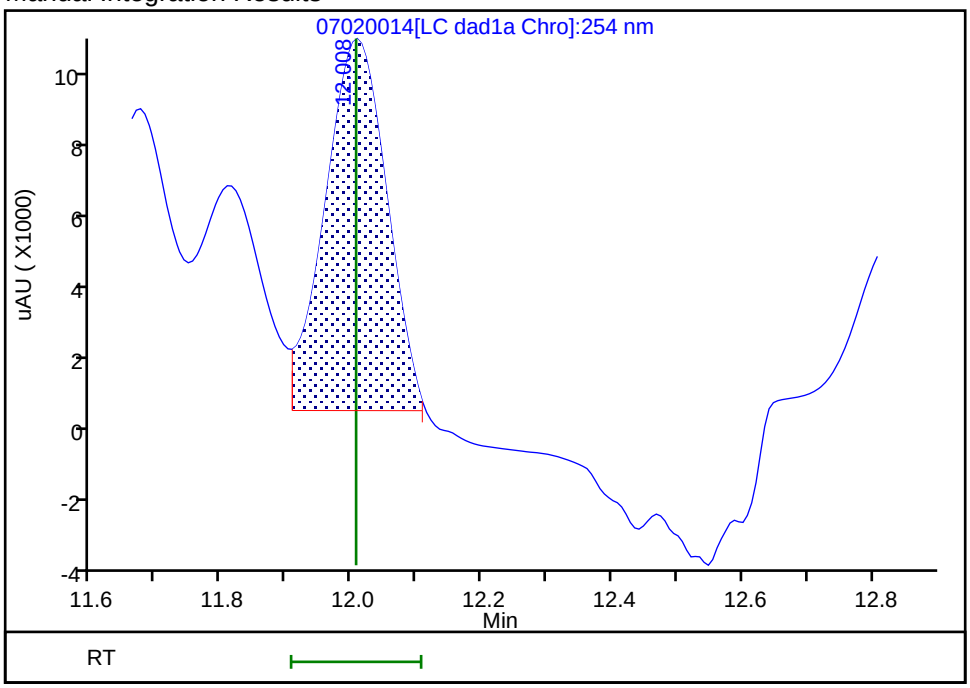
RT: 12.01
Area: 166407
Amount: 0.548141
Amount Units: ug/mL

Processing Integration Results



RT: 12.01
Area: 65371
Amount: 0.215331
Amount Units: ug/mL

Manual Integration Results



Reviewer: zhangji, 03-Jul-2020 10:24:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

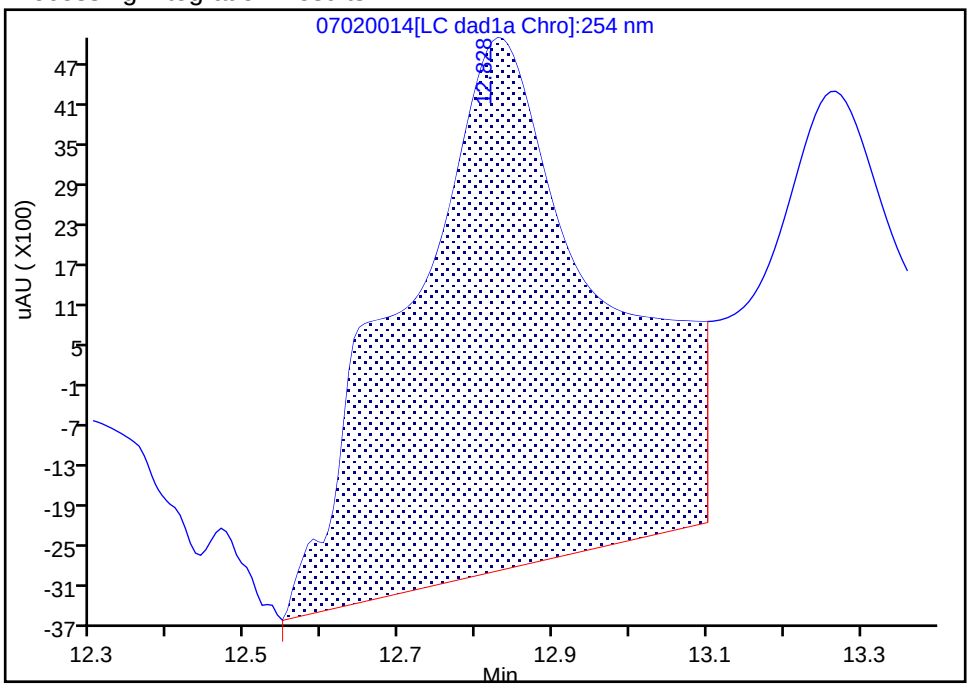
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

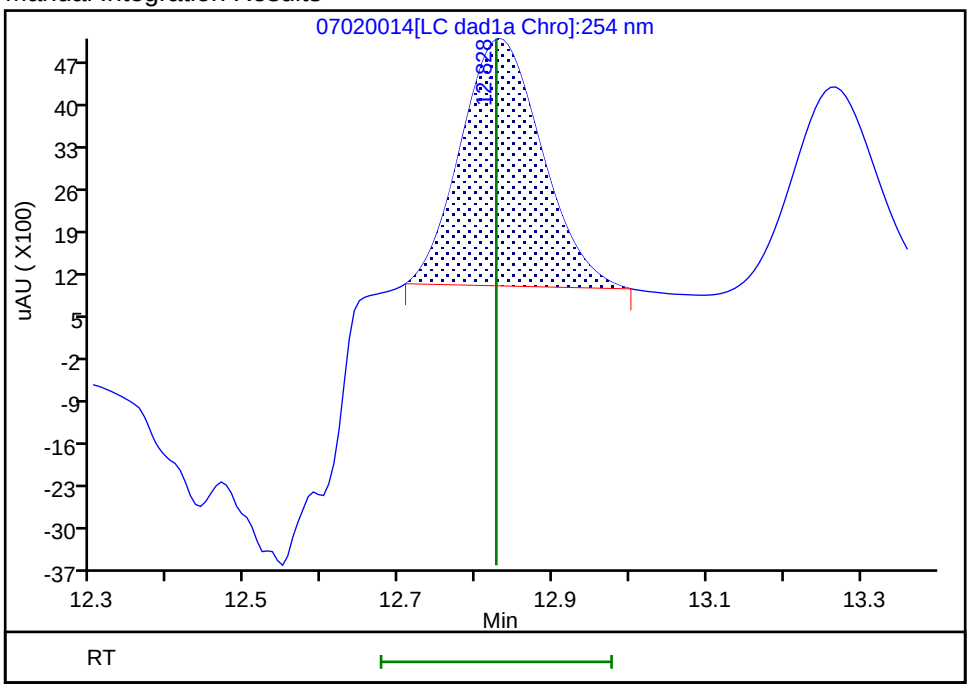
Processing Integration Results

RT: 12.83
Area: 139394
Amount: 1.032159
Amount Units: ug/mL



Manual Integration Results

RT: 12.83
Area: 29813
Amount: 0.220754
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:21:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

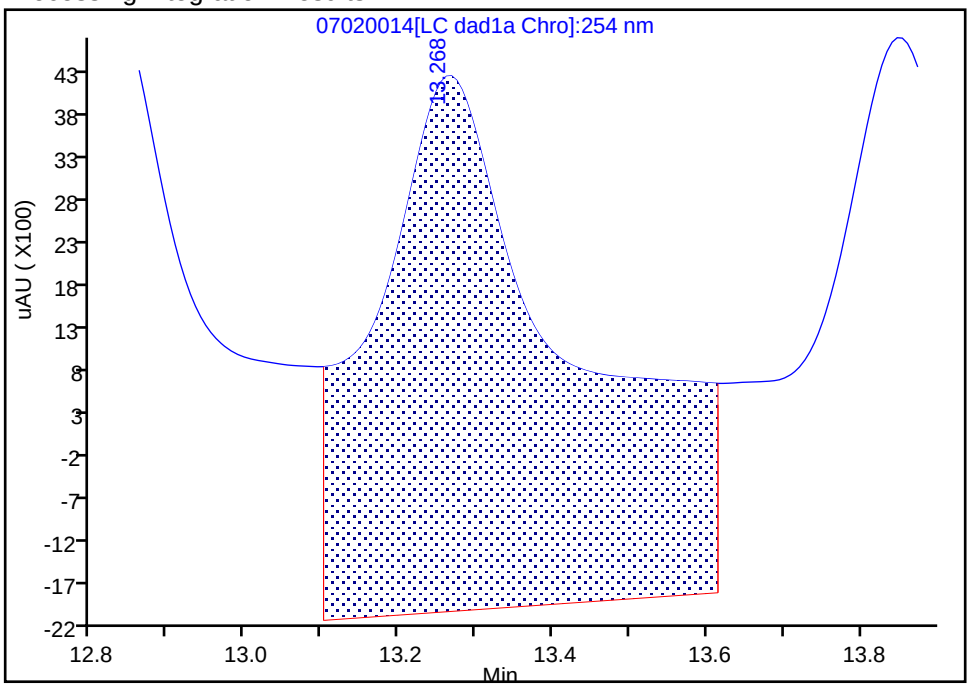
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

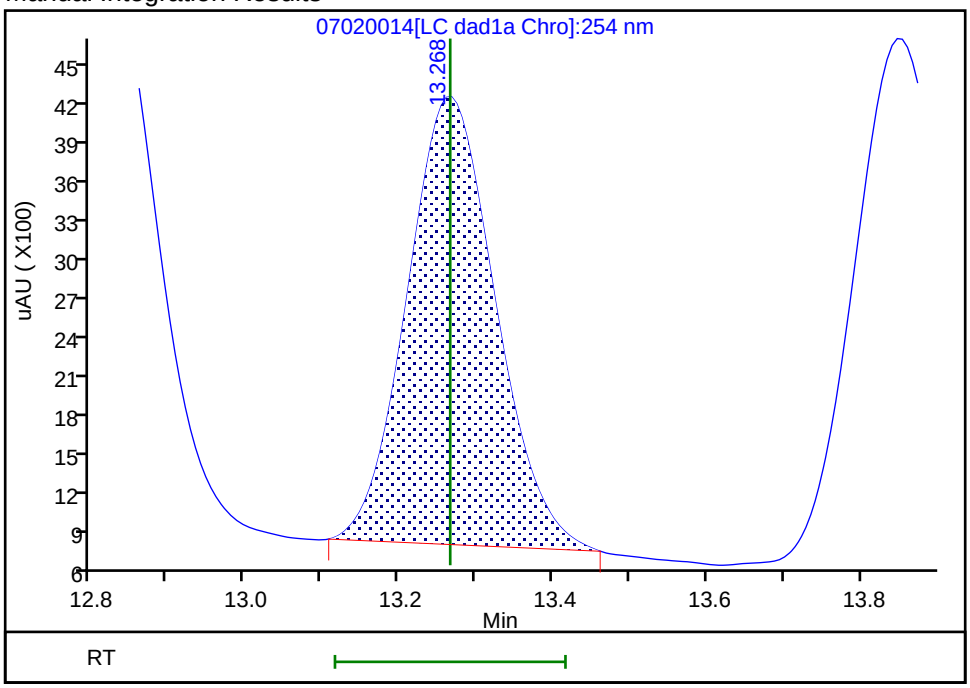
Processing Integration Results

RT: 13.27
Area: 112329
Amount: 0.994017
Amount Units: ug/mL



Manual Integration Results

RT: 13.27
Area: 27665
Amount: 0.244812
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:21:05
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

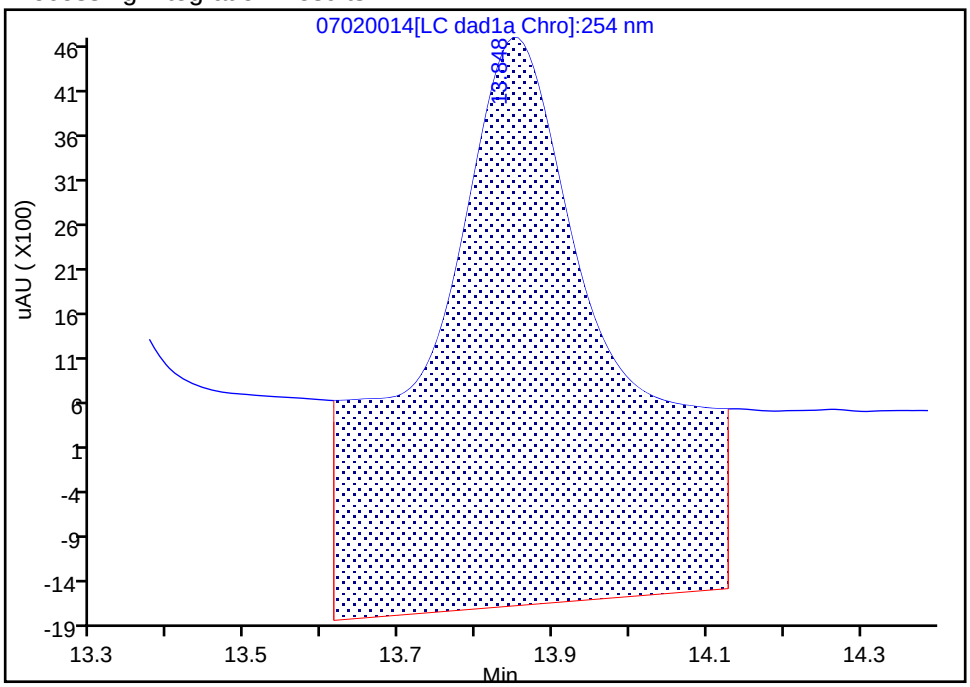
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020014.d				
Injection Date:	02-Jul-2020 19:39:57	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

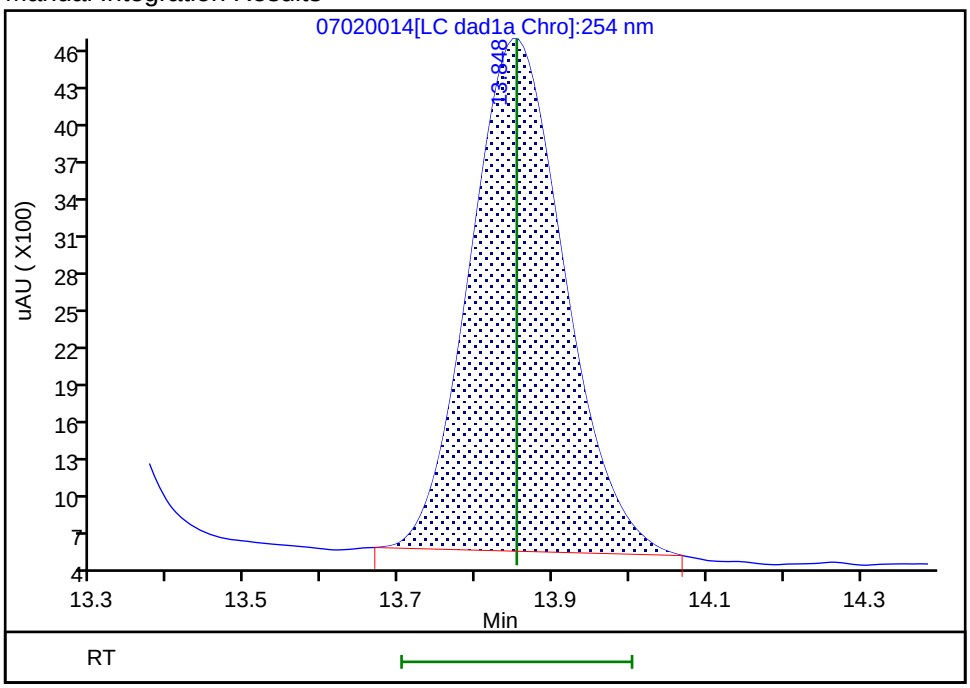
Processing Integration Results

RT: 13.85
Area: 104802
Amount: 0.732734
Amount Units: ug/mL



Manual Integration Results

RT: 13.85
Area: 34981
Amount: 0.244573
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:21:01
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/15 Calibration Date: 07/02/2020 20:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07020015.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	207576		239	250	-4.6	15.0
DNX	Ave	152928	153155		251	250	0.1	15.0
MNX	Ave	158544	143935		265	292	-9.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/15 Calibration Date: 07/02/2020 20:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07020015.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.61	6.50	6.70
DNX	6.93	6.82	7.02
MNX	7.37	7.22	7.52

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020015.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 20:02:56	ALS Bottle#:	9	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092988-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 11:09:13	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 10:22:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.606	6.603	0.003	51946	0.2503	0.2387	M
5 DNX	1	6.926	6.923	0.003	38327	0.2503	0.2506	M
6 MNX	1	7.373	7.369	0.004	41993	0.2918	0.2649	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

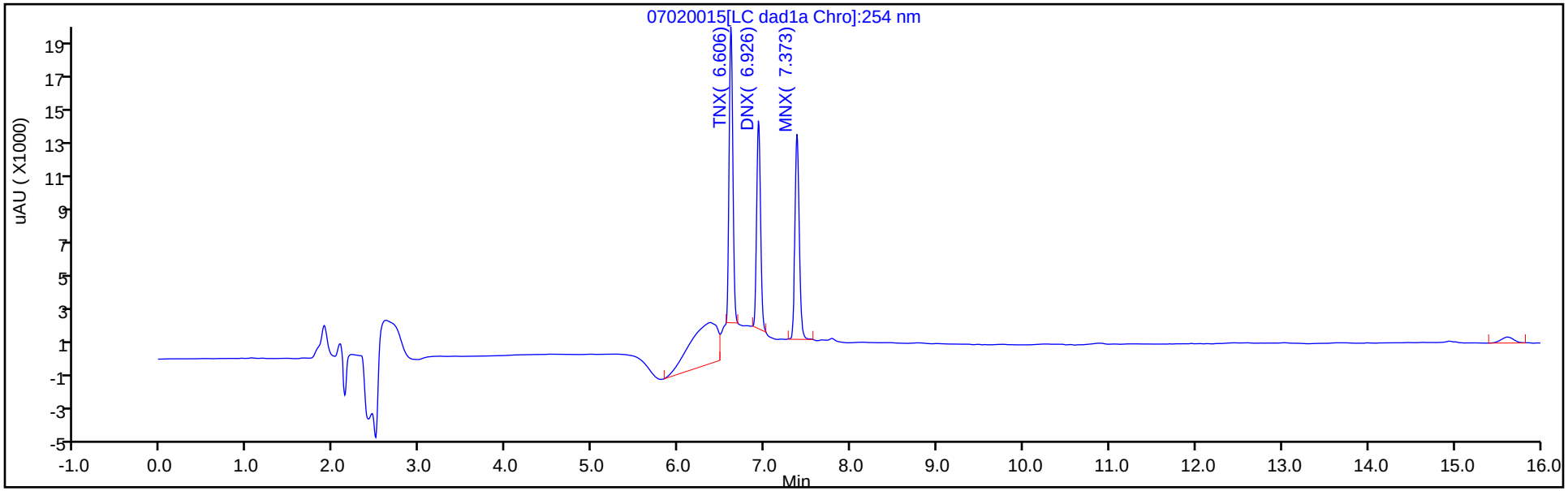
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 03-Jul-2020 11:09:13 Chrom Revision: 2.3 21-Jun-2020 18:30:46

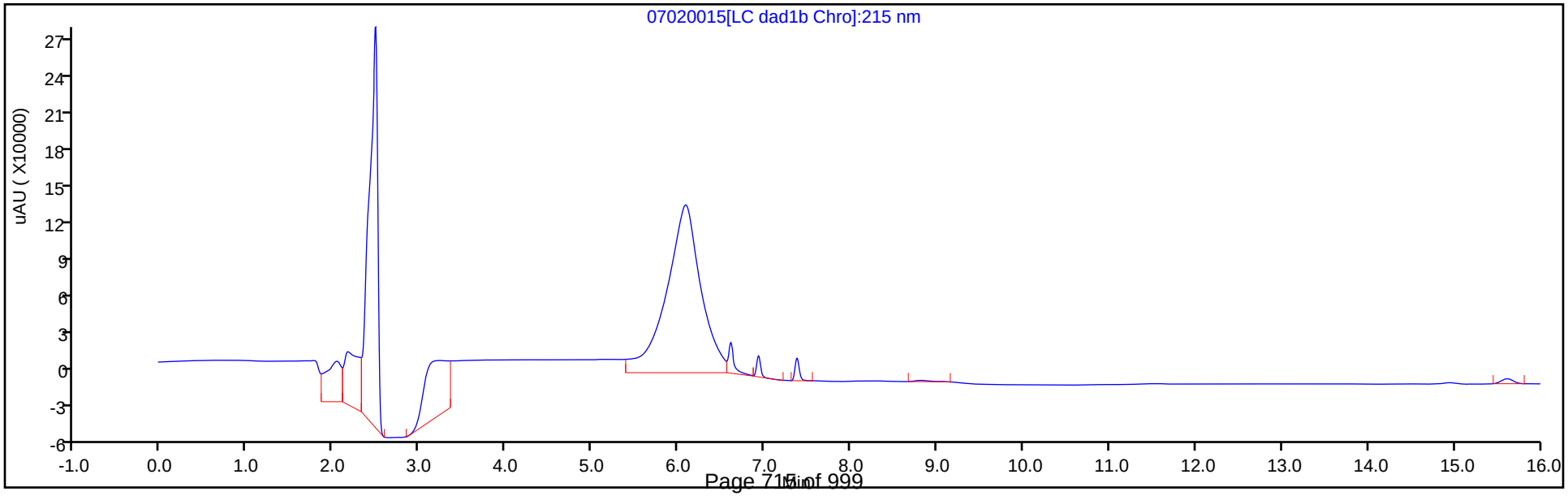
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020015.d				
Injection Date:	02-Jul-2020 20:02:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

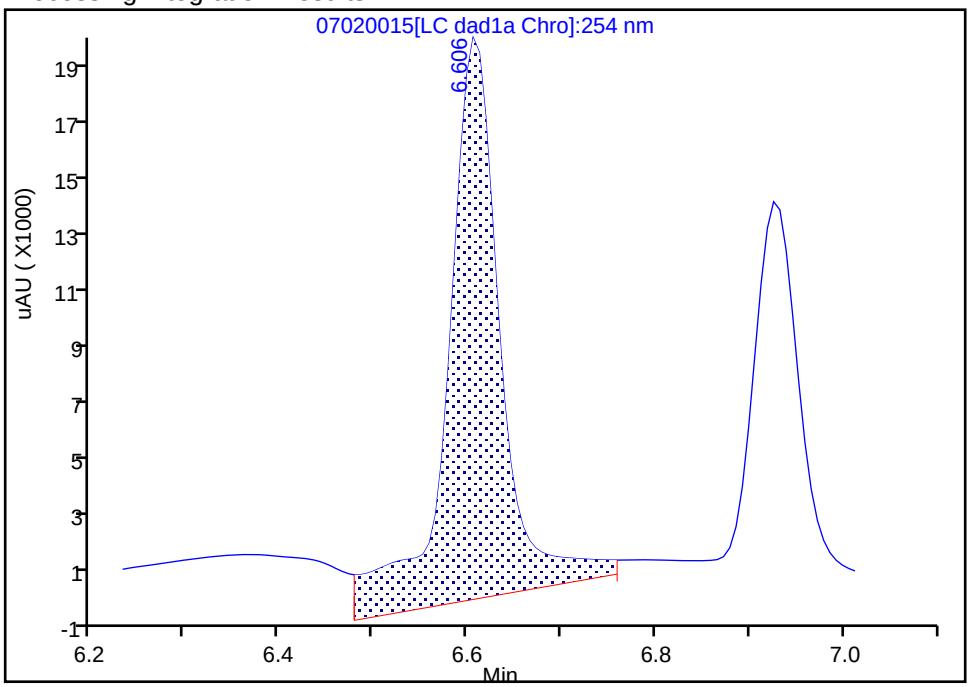
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020015.d				
Injection Date:	02-Jul-2020 20:02:56	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

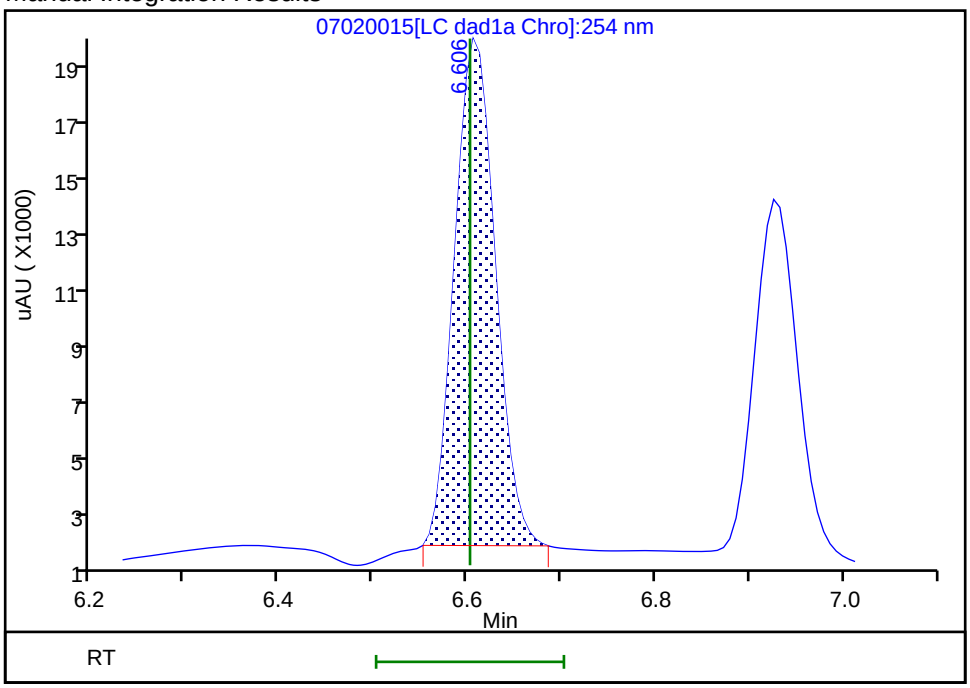
Processing Integration Results

RT: 6.61
Area: 73583
Amount: 0.338144
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 51946
Amount: 0.238713
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:22:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

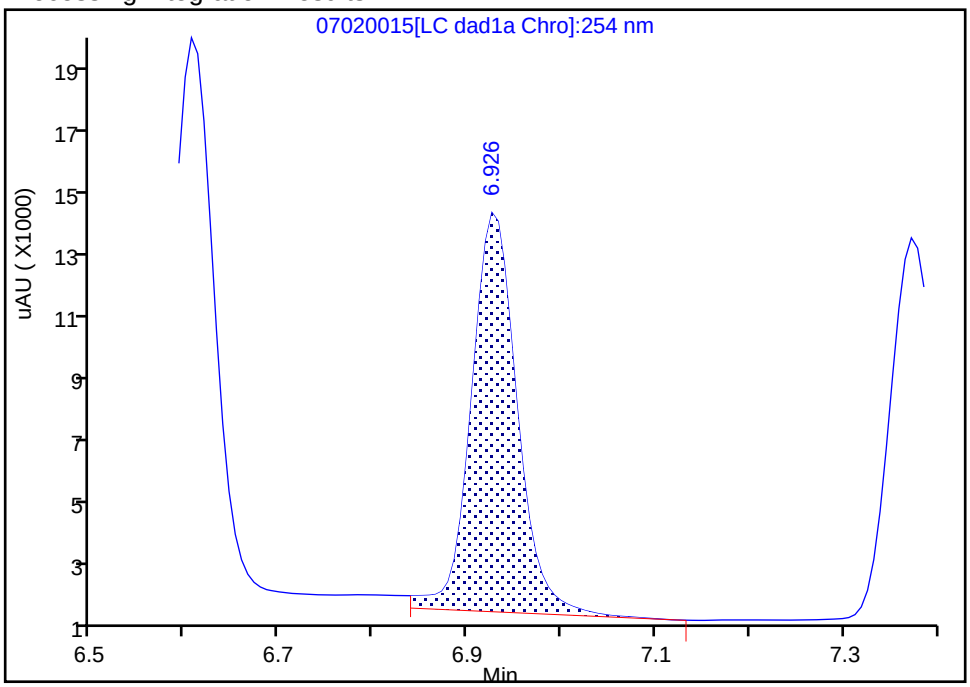
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020015.d				
Injection Date:	02-Jul-2020 20:02:56	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

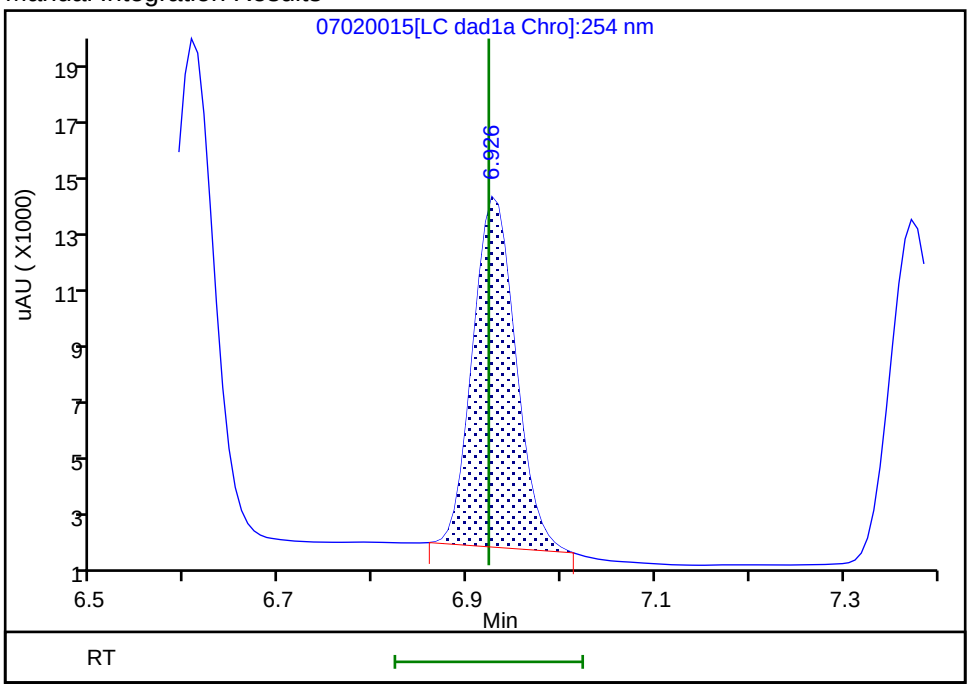
Processing Integration Results

RT: 6.93
Area: 42409
Amount: 0.277313
Amount Units: ug/mL



Manual Integration Results

RT: 6.93
Area: 38327
Amount: 0.250621
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:22:49
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/25 Calibration Date: 07/02/2020 23:53

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07020025.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	90904		264	250	5.7	15.0
RDX	Ave	116613	111268		239	250	-4.6	15.0
Picric acid	Ave	85131	84292		248	250	-1.0	15.0
1,3,5-Trinitrobenzene	Ave	230309	239996		261	251	4.2	15.0
1,3-Dinitrobenzene	Ave	306686	320607		262	251	4.5	15.0
Nitrobenzene	Ave	200403	201685		253	251	0.6	15.0
Tetryl	Ave	177032	180758		256	251	2.1	15.0
Nitroglycerin	Ave	68133	72569		2660	2500	6.5	15.0
2,4,6-Trinitrotoluene	Ave	204031	217697		268	251	6.7	15.0
4-Amino-2,6-dinitrotoluene	Lin2		164156		237	250	-5.4	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	211721		262	251	4.4	15.0
2,6-Dinitrotoluene	Ave	149452	156924		264	251	5.0	15.0
2,4-Dinitrotoluene	Ave	303584	312542		258	251	3.0	15.0
2-Nitrotoluene	Ave	135051	130476		242	250	-3.4	15.0
4-Nitrotoluene	Ave	113005	114012		253	251	0.9	15.0
3-Nitrotoluene	Ave	143029	143077		250	250	0.0	15.0
PETN	Ave	78605	87493		2780	2500	11.3	15.0
1,2-Dinitrobenzene	Ave	138212	144636		262	250	4.6	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/25 Calibration Date: 07/02/2020 23:53

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 07020025.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.71	6.56	6.86
RDX	7.79	7.62	7.92
Picric acid	8.10	7.93	8.23
1,3,5-Trinitrobenzene	8.92	8.76	9.06
1,3-Dinitrobenzene	9.57	9.41	9.71
Nitrobenzene	9.95	9.78	10.08
Tetryl	10.26	10.10	10.40
Nitroglycerin	10.78	10.61	10.91
2,4,6-Trinitrotoluene	11.24	11.11	11.31
4-Amino-2,6-dinitrotoluene	11.41	11.28	11.48
2-Amino-4,6-dinitrotoluene	11.70	11.57	11.77
2,6-Dinitrotoluene	11.84	11.71	11.91
2,4-Dinitrotoluene	12.04	11.91	12.11
2-Nitrotoluene	12.86	12.68	12.98
4-Nitrotoluene	13.30	13.12	13.42
3-Nitrotoluene	13.90	13.70	14.00
PETN	15.00	14.81	15.11
1,2-Dinitrobenzene	8.75	8.58	8.88

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020025.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 02-Jul-2020 23:53:17 ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092988-025
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 03-Jul-2020 11:09:18 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1025

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.710	6.706	0.004	22726	0.2500	0.2644	
7 RDX	1	7.790	7.773	0.017	27817	0.2500	0.2385	
8 2,4,6-Trinitrophenol	1	8.104	8.080	0.024	21073	0.2500	0.2475	
$ 9 1,2-Dinitrobenzene	1	8.750	8.733	0.017	36159	0.2500	0.2616	
10 1,3,5-Trinitrobenzene	1	8.924	8.906	0.018	60119	0.2505	0.2610	
11 1,3-Dinitrobenzene	1	9.570	9.559	0.011	80312	0.2505	0.2619	
12 Nitrobenzene	1	9.950	9.933	0.017	50623	0.2510	0.2526	
14 Tetryl	1	10.263	10.246	0.017	45280	0.2505	0.2558	
15 Nitroglycerin	2	10.777	10.759	0.018	181422	2.50	2.66	
16 2,4,6-Trinitrotoluene	1	11.237	11.213	0.024	54642	0.2510	0.2678	
17 4-Amino-2,6-dinitrotoluene	1	11.410	11.379	0.031	41080	0.2503	0.2368	
18 2-Amino-4,6-dinitrotoluene	1	11.697	11.666	0.031	53142	0.2510	0.2620	
19 2,6-Dinitrotoluene	1	11.837	11.806	0.031	39388	0.2510	0.2635	
20 2,4-Dinitrotoluene	1	12.037	12.006	0.031	78448	0.2510	0.2584	
21 o-Nitrotoluene	1	12.863	12.826	0.037	32619	0.2500	0.2415	
22 p-Nitrotoluene	1	13.303	13.266	0.037	28560	0.2505	0.2527	
23 m-Nitrotoluene	1	13.897	13.853	0.044	35805	0.2503	0.2503	
24 PETN	2	14.997	14.959	0.038	218732	2.50	2.78	

Reagents:

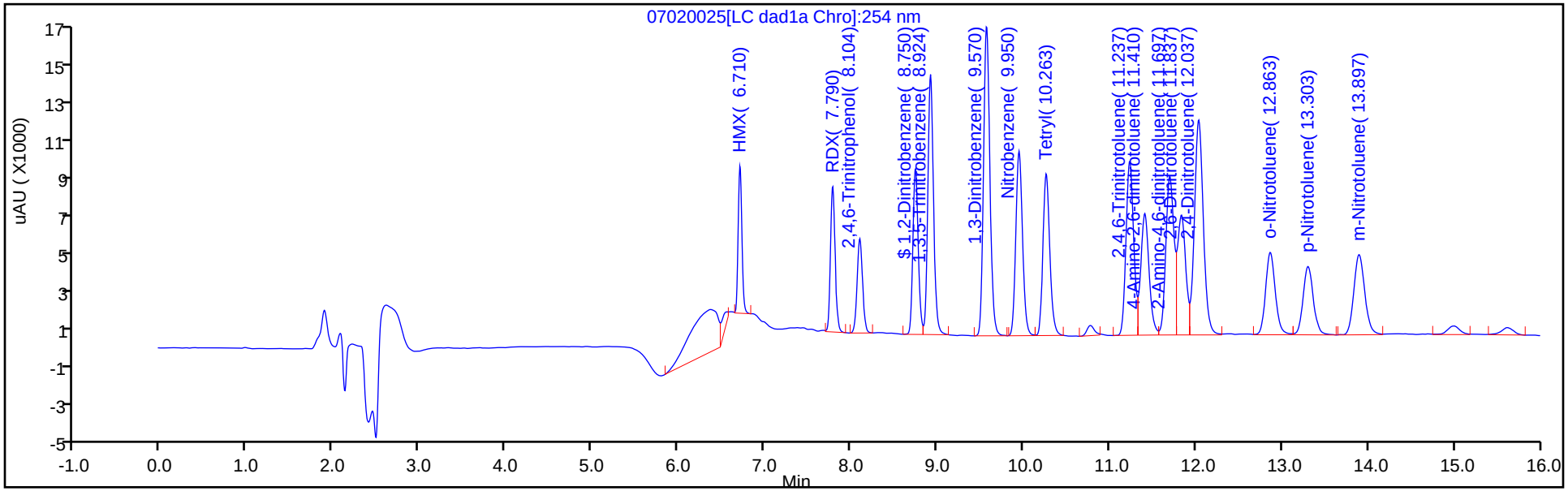
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 03-Jul-2020 11:09:18 Chrom Revision: 2.3 21-Jun-2020 18:30:46

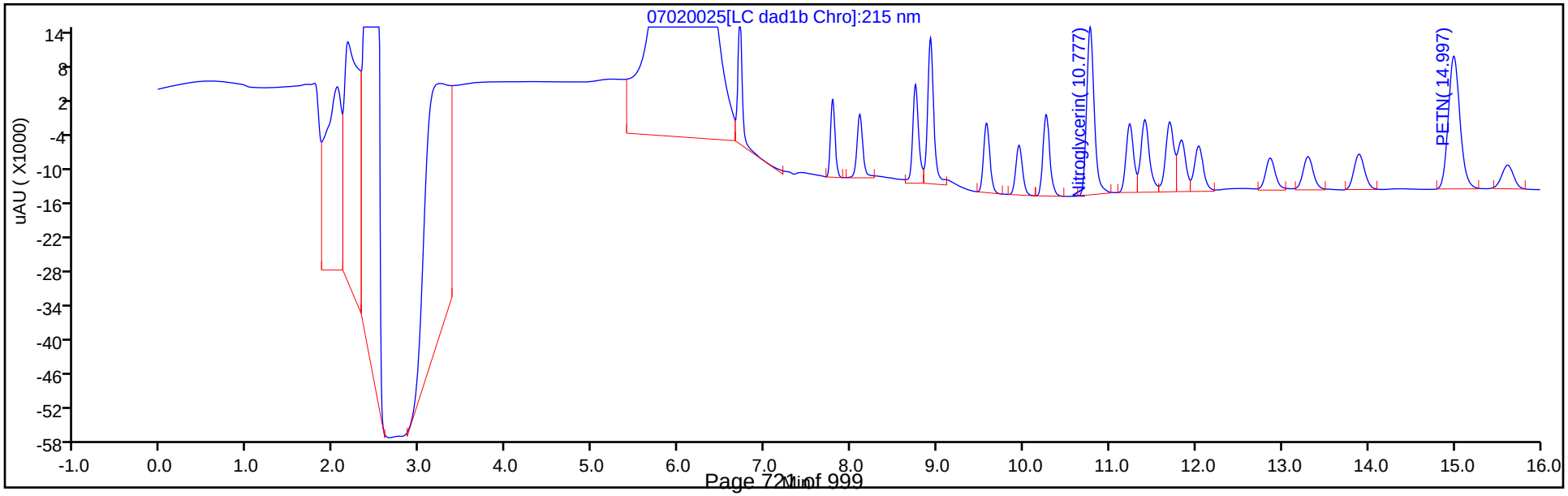
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020025.d				
Injection Date:	02-Jul-2020 23:53:17	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/26 Calibration Date: 07/03/2020 00:16

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07020026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	209143		241	250	-3.9	15.0
DNX	Ave	152928	126689		207	250	-17.2*	15.0
MNX	Ave	158544	139434		257	292	-12.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Lab Sample ID: CCV 280-500997/26 Calibration Date: 07/03/2020 00:16

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 07020026.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.61	6.50	6.70
DNX	6.93	6.82	7.02
MNX	7.39	7.22	7.52

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\07020026.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-Jul-2020 00:16:17	ALS Bottle#:	9	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092988-026				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200702-92988.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Jul-2020 11:09:18	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1025				

First Level Reviewer: zhangji Date: 03-Jul-2020 10:27:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.614	6.603	0.011	52338	0.2503	0.2405	M
5 DNX	1	6.928	6.923	0.005	31704	0.2503	0.2073	M
6 MNX	1	7.388	7.369	0.019	40680	0.2918	0.2566	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

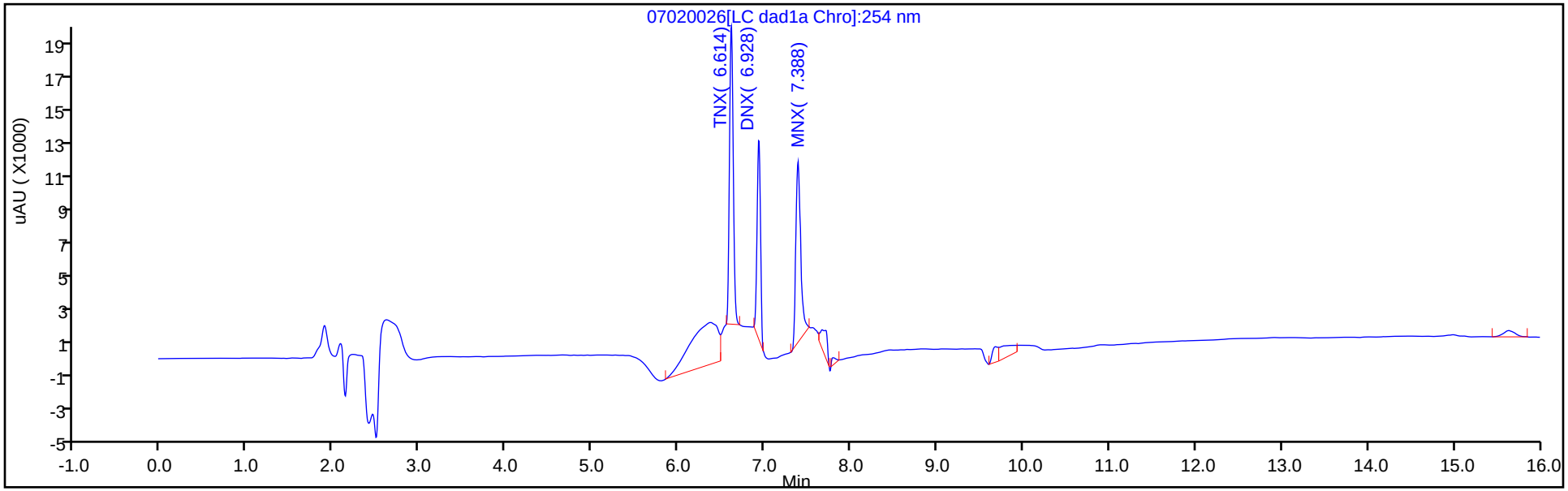
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 03-Jul-2020 11:09:18 Chrom Revision: 2.3 21-Jun-2020 18:30:46

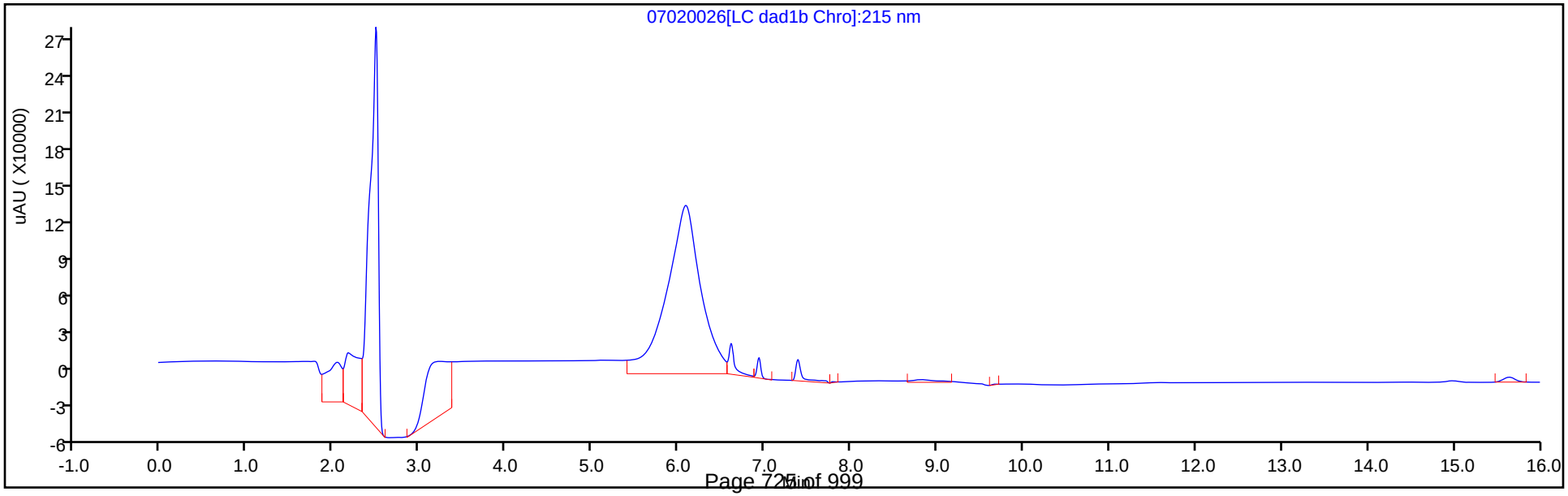
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020026.d				
Injection Date:	03-Jul-2020 00:16:17	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

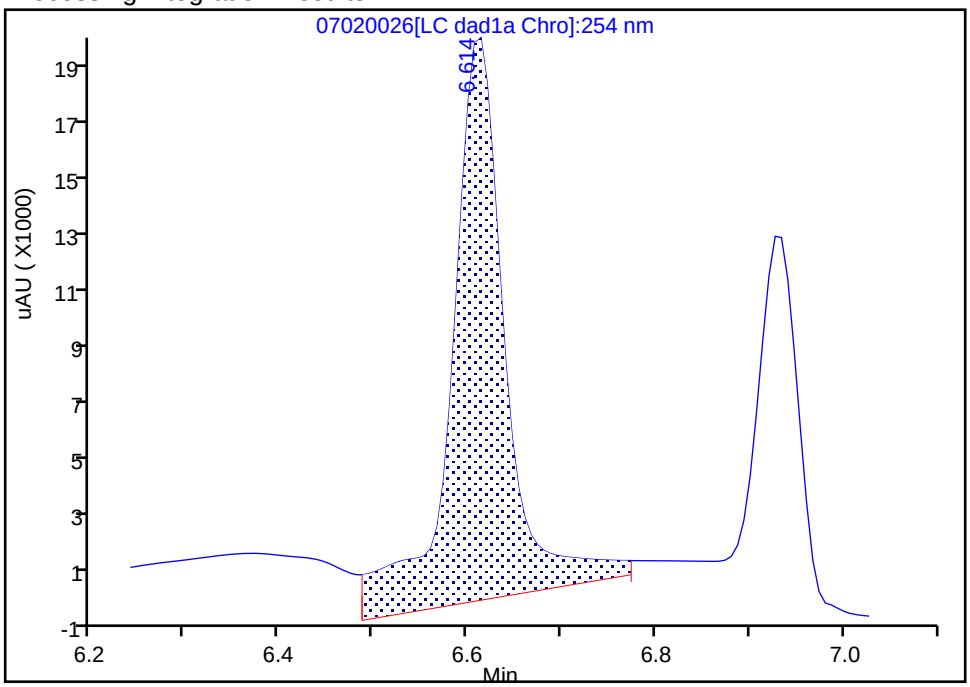
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020026.d				
Injection Date:	03-Jul-2020 00:16:17	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

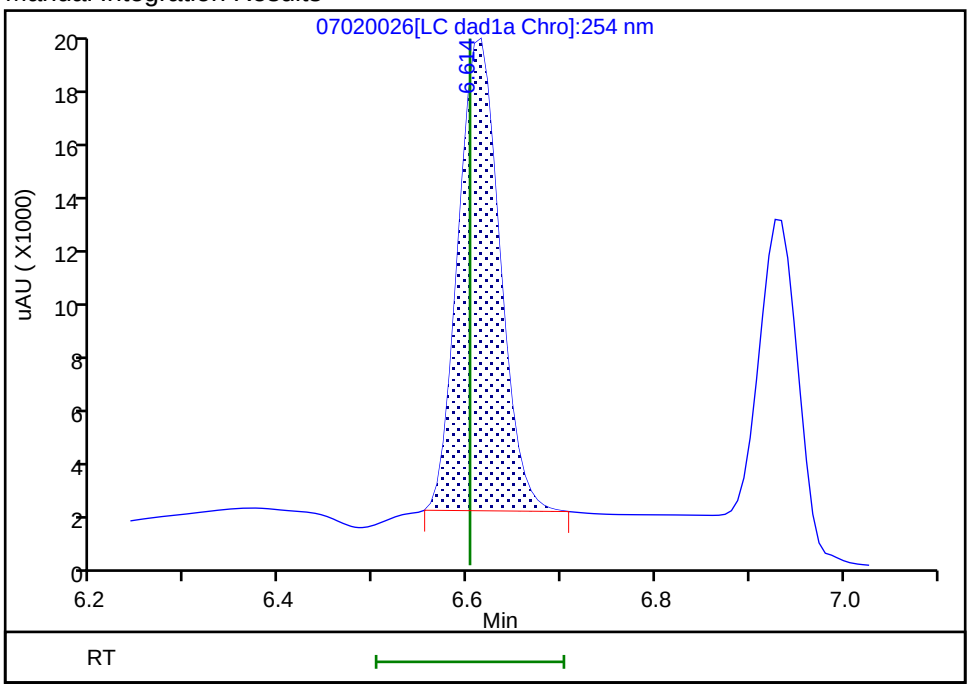
Processing Integration Results

RT: 6.61
Area: 74041
Amount: 0.340248
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 52338
Amount: 0.240514
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:27:33
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

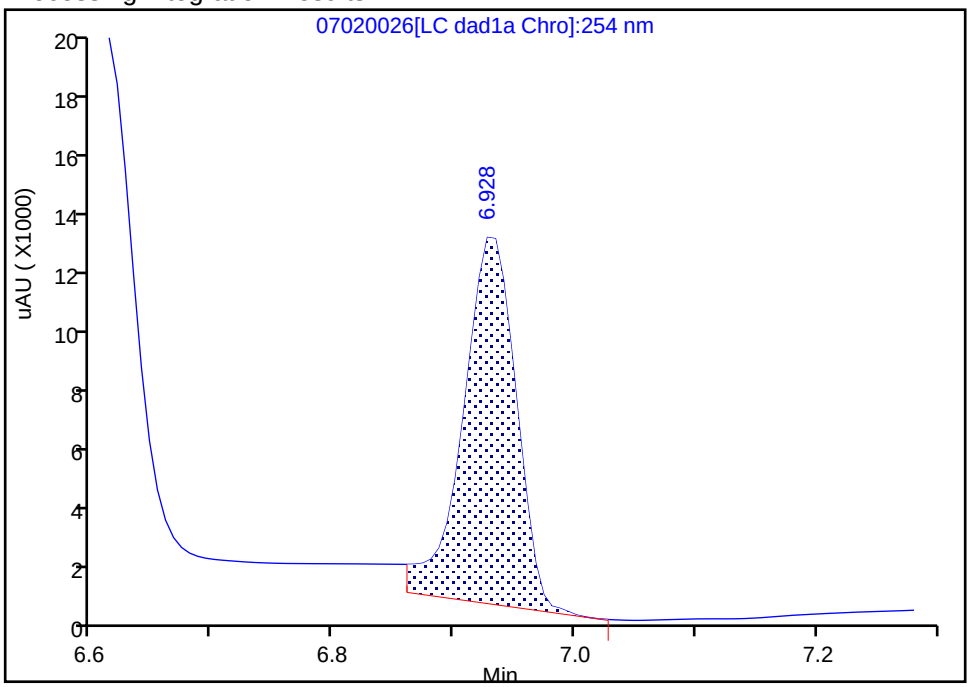
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020026.d				
Injection Date:	03-Jul-2020 00:16:17	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

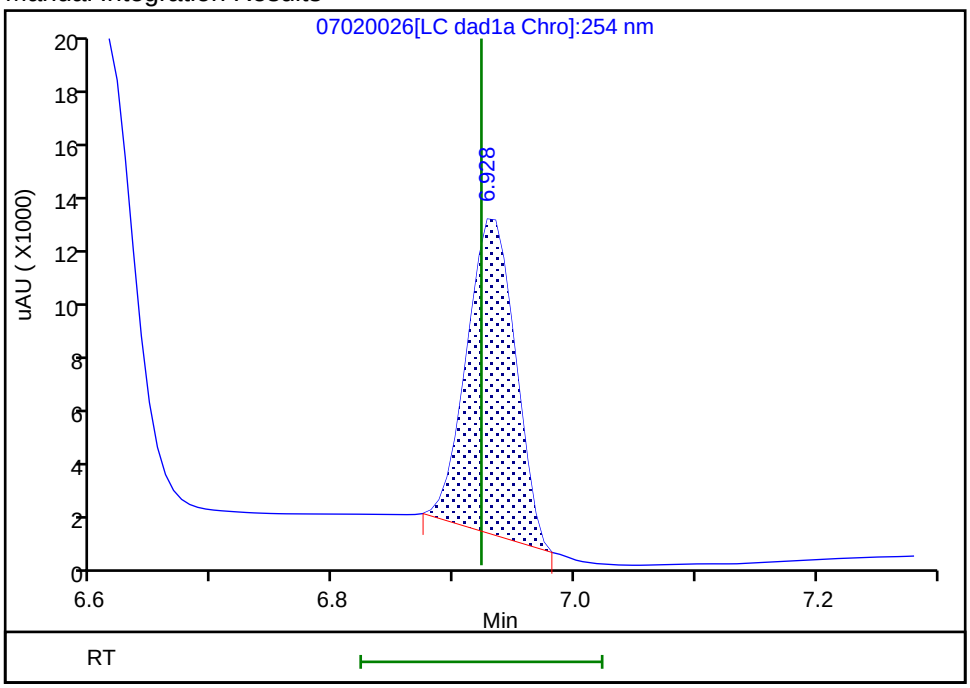
Processing Integration Results

RT: 6.93
Area: 36612
Amount: 0.239406
Amount Units: ug/mL



Manual Integration Results

RT: 6.93
Area: 31704
Amount: 0.207313
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:27:44
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

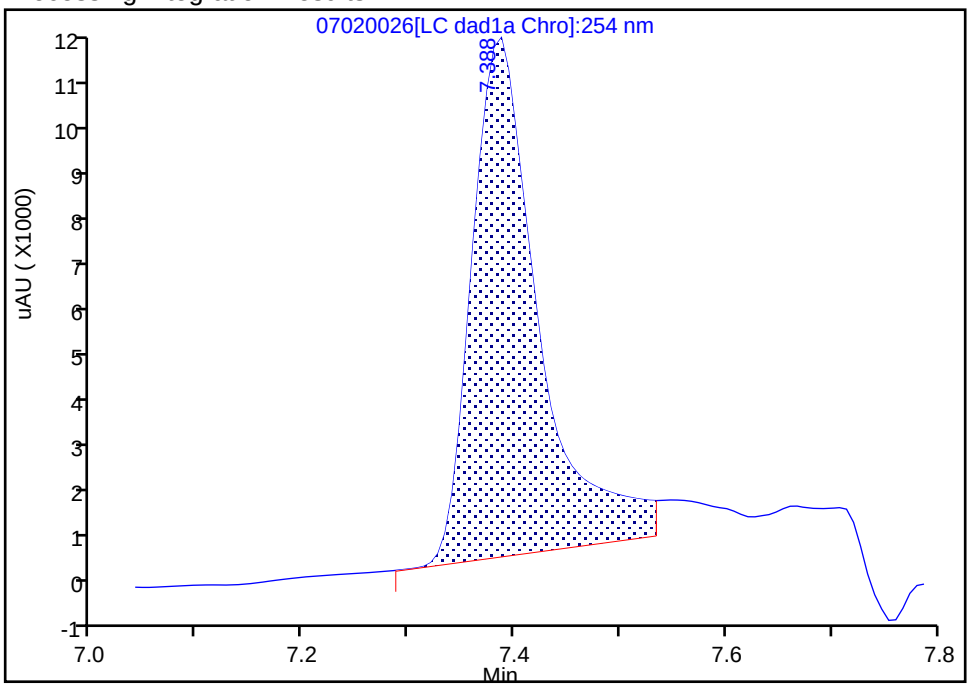
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200702-92988.b\07020026.d				
Injection Date:	03-Jul-2020 00:16:17	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

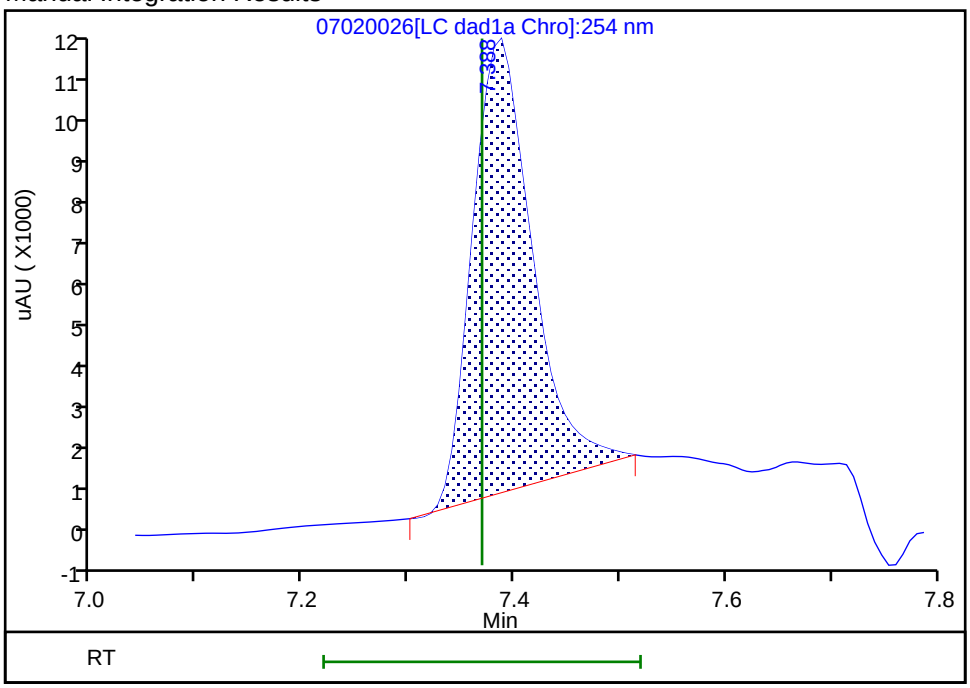
Processing Integration Results

RT: 7.39
Area: 47034
Amount: 0.296662
Amount Units: ug/mL



Manual Integration Results

RT: 7.39
Area: 40680
Amount: 0.256585
Amount Units: ug/mL



Reviewer: zhangji, 03-Jul-2020 10:27:48

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-499740/1-A
Matrix: Water
Lab File ID: 07010043.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 500(mL)
Date Analyzed: 07/02/2020 07:03
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500850
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.40	U M	0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
5755-27-1	MNX	0.40	U	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010043.D
Lims ID: MB 280-499740/1-A
Client ID:
Sample Type: MB
Inject. Date: 02-Jul-2020 07:03:03 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-499740/1-
Misc. Info.: 280-0092952-043
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Jul-2020 14:04:15 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1059

First Level Reviewer: zhangji Date: 02-Jul-2020 13:03:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
26 Triamine Trinitrobenzene	1		2.515				ND	
1 2,6-diamino-4-nitrotoluene	1		6.565				ND	U
2 TNX	1		6.609				ND	
3 HMX	1		6.709				ND	
4 2,4-diamino-6-nitrotoluene	1		6.752				ND	
5 DNX	1		6.935				ND	
6 MNX	1		7.389				ND	
7 RDX	1		7.789				ND	
8 2,4,6-Trinitrophenol	1	8.135	8.109	0.026	687		0.008070	
$ 9 1,2-Dinitrobenzene	1	8.775	8.763	0.012	29003	0.2000	0.2098	
10 1,3,5-Trinitrobenzene	1		8.936				ND	
11 1,3-Dinitrobenzene	1		9.596				ND	
12 Nitrobenzene	1		9.982				ND	
13 3,5-Dinitroaniline	1		10.238				ND	
14 Tetryl	1		10.309				ND	
15 Nitroglycerin	2		10.822				ND	
16 2,4,6-Trinitrotoluene	1		11.282				ND	
17 4-Amino-2,6-dinitrotoluene	1		11.469				ND	
18 2-Amino-4,6-dinitrotoluene	1		11.756				ND	
19 2,6-Dinitrotoluene	1		11.896				ND	
20 2,4-Dinitrotoluene	1		12.096				ND	
21 o-Nitrotoluene	1		12.936				ND	
22 p-Nitrotoluene	1		13.382				ND	
23 m-Nitrotoluene	1		13.982				ND	U
24 PETN	2		15.129				ND	
25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

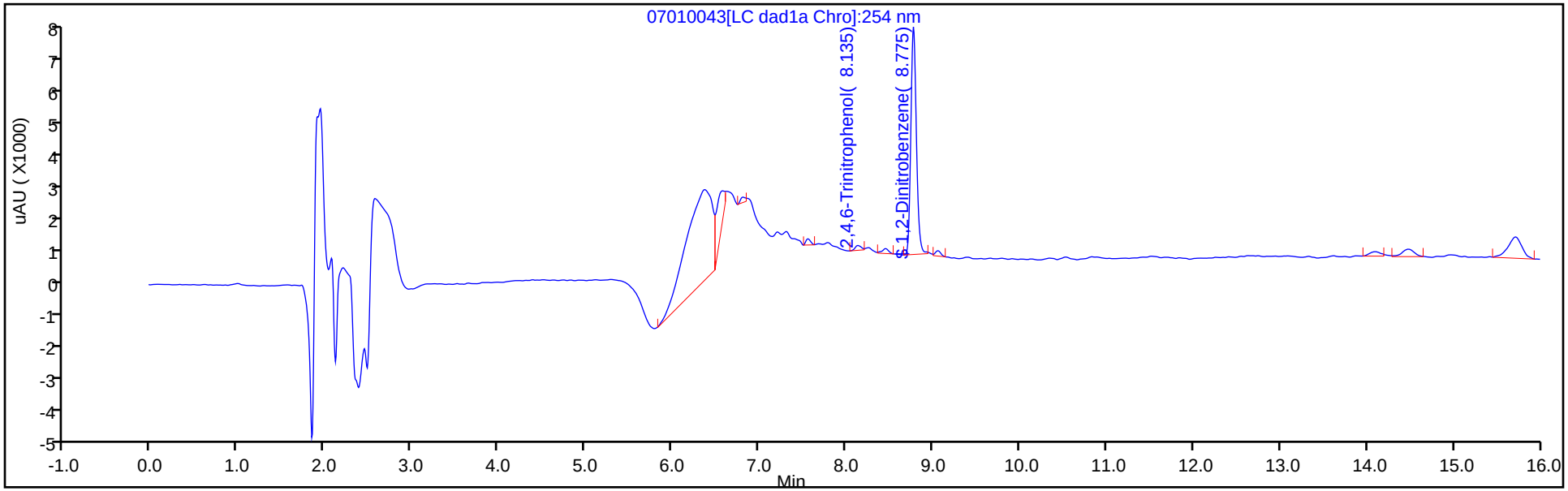
U - Marked Undetected

Report Date: 02-Jul-2020 14:04:16 Chrom Revision: 2.3 21-Jun-2020 18:30:46

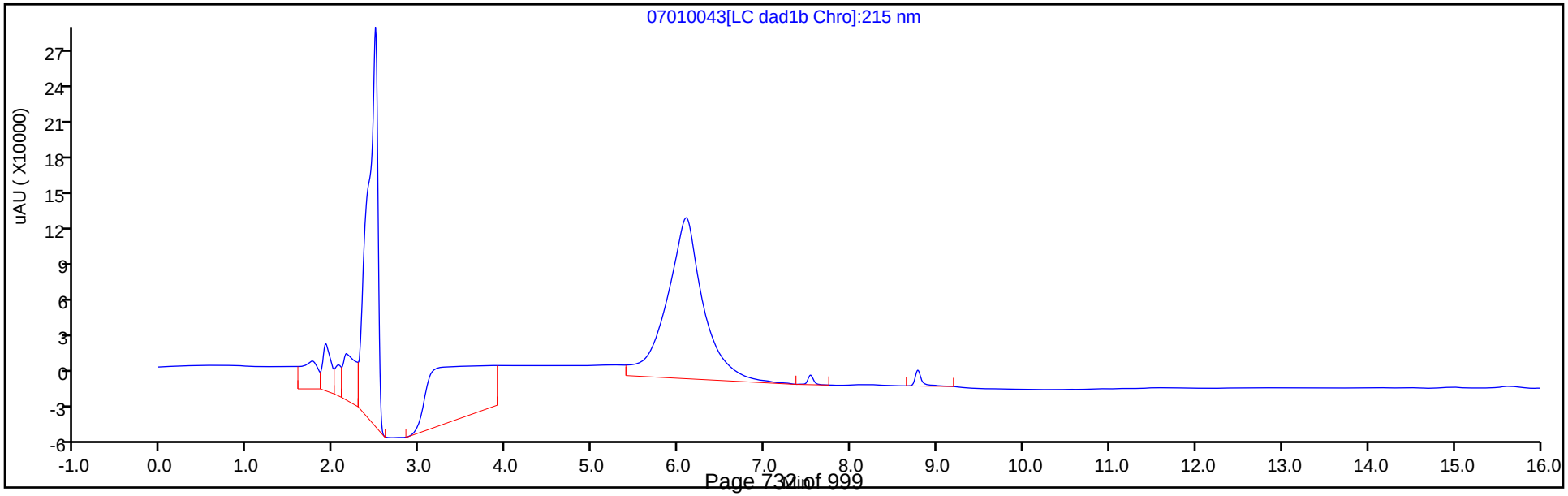
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010043.d				
Injection Date:	02-Jul-2020 07:03:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-499740/1-A			Worklist Smp#:	43
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	43
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010043.D				
Lims ID:	MB 280-499740/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	02-Jul-2020 07:03:03	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-499740/1-				
Misc. Info.:	280-0092952-043				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				

First Level Reviewer: zhangji Date: 02-Jul-2020 13:03:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2098	104.92

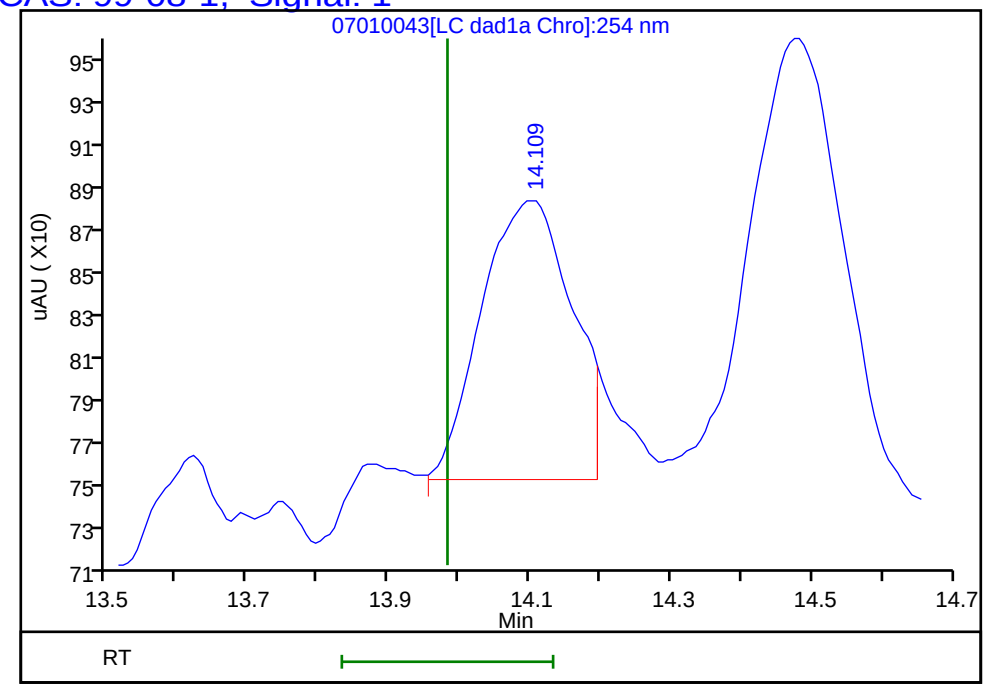
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010043.d				
Injection Date:	02-Jul-2020 07:03:03	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-499740/1-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 14.11
Response: 1127
Amount: 0.007880



Reviewer: zhangji, 02-Jul-2020 13:03:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-499740/2-A
Matrix: Water
Lab File ID: 07010044.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 500(mL)
Date Analyzed: 07/02/2020 07:26
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500850
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.42		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.27		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.35		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.11		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.22		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.01		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.84		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	2.06		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.85		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.92		0.41	0.40	0.10
2691-41-0	HMX	2.19		0.21	0.20	0.088
98-95-3	Nitrobenzene	2.11		0.21	0.20	0.091
121-82-4	RDX	2.13		0.21	0.20	0.052
479-45-8	Tetryl	2.15		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010044.D
Lims ID: LCS 280-499740/2-A
Client ID:
Sample Type: LCS
Inject. Date: 02-Jul-2020 07:26:01 ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-499740/2
Misc. Info.: 280-0092952-044
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Jul-2020 14:04:15 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1059

First Level Reviewer: zhangji Date: 02-Jul-2020 13:03:43

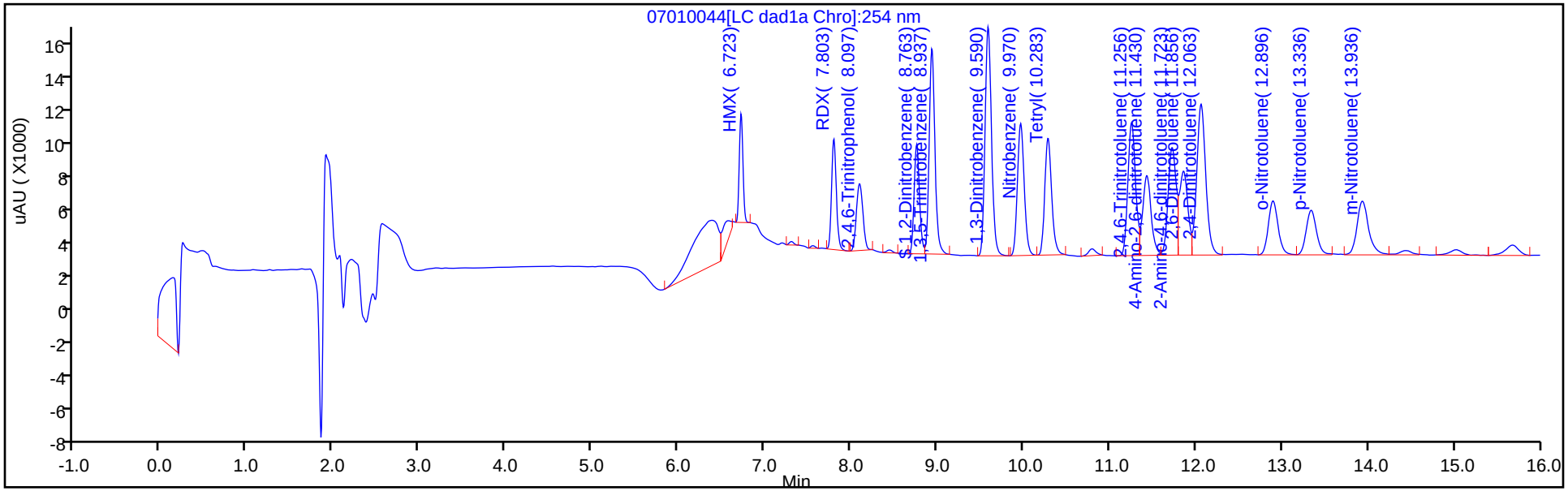
Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.723	6.709	0.014	18808	0.2000	0.2188	
7 RDX	1	7.803	7.789	0.014	24859	0.2000	0.2132	
8 2,4,6-Trinitrophenol	1	8.097	8.109	-0.012	20411	0.2000	0.2398	
$ 9 1,2-Dinitrobenzene	1	8.763	8.763	0.000	27845	0.2000	0.2015	
10 1,3,5-Trinitrobenzene	1	8.937	8.936	0.001	55680	0.2000	0.2418	
11 1,3-Dinitrobenzene	1	9.590	9.596	-0.006	69550	0.2000	0.2268	
12 Nitrobenzene	1	9.970	9.982	-0.012	42350	0.2000	0.2113	
14 Tetryl	1	10.283	10.309	-0.026	38075	0.2000	0.2151	
15 Nitroglycerin	2	10.796	10.822	-0.026	145292	2.00	2.13	
16 2,4,6-Trinitrotoluene	1	11.256	11.282	-0.026	48045	0.2000	0.2355	
17 4-Amino-2,6-dinitrotoluene	1	11.430	11.469	-0.039	31903	0.2000	0.1854	
18 2-Amino-4,6-dinitrotoluene	1	11.723	11.756	-0.033	40724	0.2000	0.2008	
19 2,6-Dinitrotoluene	1	11.856	11.896	-0.040	33159	0.2000	0.2219	
20 2,4-Dinitrotoluene	1	12.063	12.096	-0.033	64176	0.2000	0.2114	
21 o-Nitrotoluene	1	12.896	12.936	-0.040	24794	0.2000	0.1836	
22 p-Nitrotoluene	1	13.336	13.382	-0.046	21733	0.2000	0.1923	
23 m-Nitrotoluene	1	13.936	13.982	-0.046	29494	0.2000	0.2062	
24 PETN	2	15.023	15.129	-0.106	166718	2.00	2.12	

Report Date: 02-Jul-2020 14:04:16 Chrom Revision: 2.3 21-Jun-2020 18:30:46

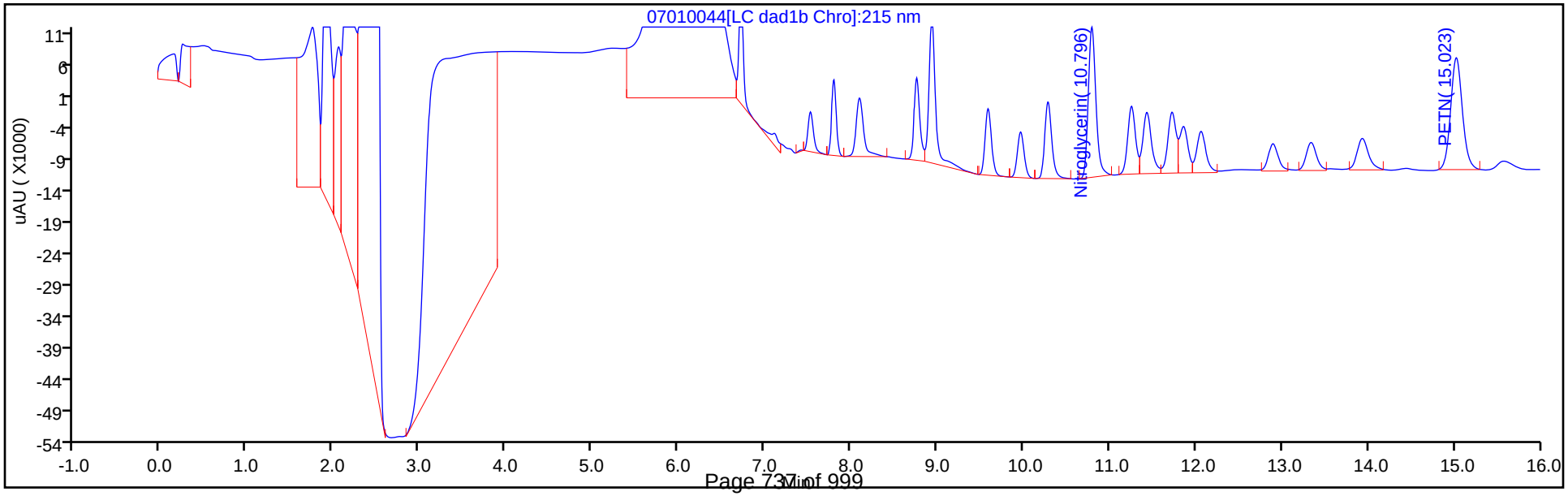
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010044.d				
Injection Date:	02-Jul-2020 07:26:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-499740/2-A			Worklist Smp#:	44
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	44
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010044.D				
Lims ID:	LCS 280-499740/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	02-Jul-2020 07:26:01	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-499740/2				
Misc. Info.:	280-0092952-044				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				

First Level Reviewer: zhangji Date: 02-Jul-2020 13:03:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2015	100.73

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-499740/4-A
Matrix: Water
Lab File ID: 07010046.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 500(mL)
Date Analyzed: 07/02/2020 08:12
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500850
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.08	M	2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010046.D				
Lims ID:	LCS 280-499740/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	02-Jul-2020 08:12:04	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-499740/4				
Misc. Info.:	280-0092952-046				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				
First Level Reviewer: zhangji		Date:	02-Jul-2020 13:05:21		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.621	6.609	0.012	39427	0.2002	0.1812	M
5 DNX	1	6.941	6.935	0.006	30250	0.2002	0.1978	M
6 MNX	1	7.394	7.389	0.005	32969	0.2334	0.2079	M
$ 9 1,2-Dinitrobenzene	1	8.767	8.763	0.004	29016	0.2000	0.2099	

QC Flag Legend

Review Flags

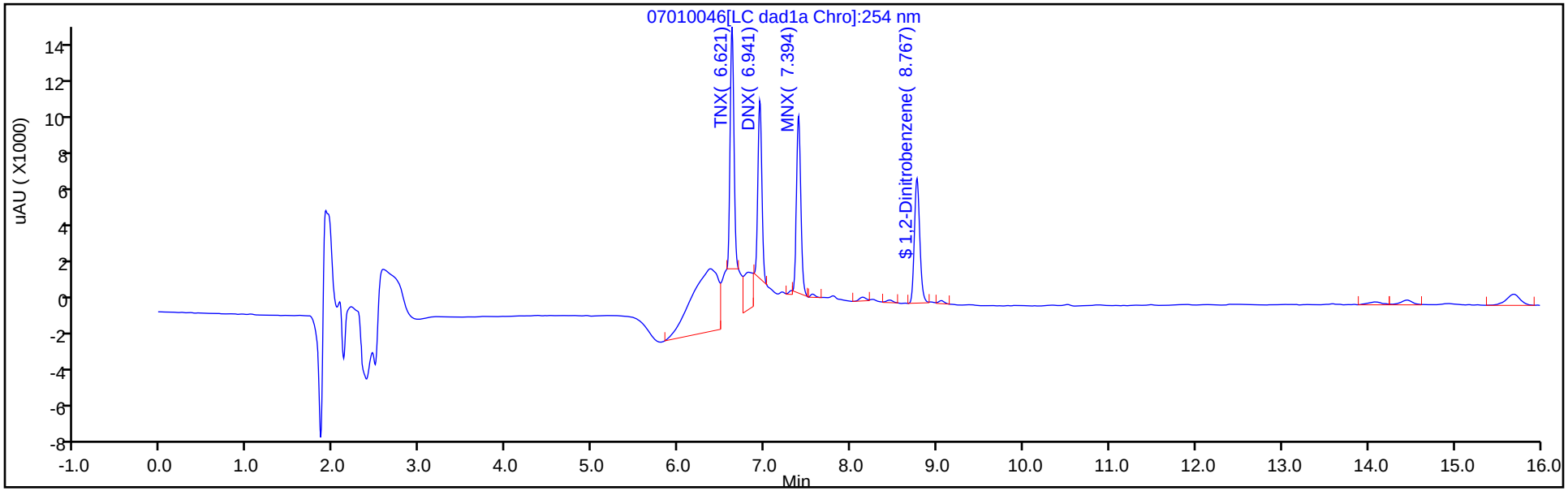
M - Manually Integrated

Report Date: 02-Jul-2020 14:04:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

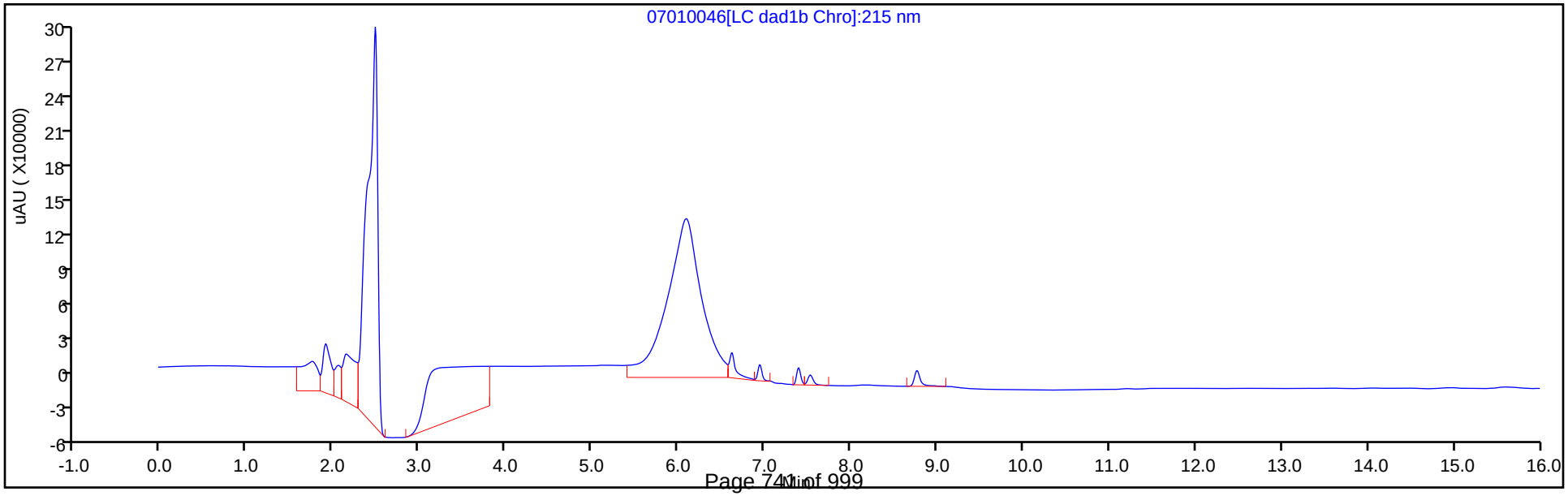
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010046.d				
Injection Date:	02-Jul-2020 08:12:04	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-499740/4-A			Worklist Smp#:	46
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010046.D				
Lims ID:	LCS 280-499740/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	02-Jul-2020 08:12:04	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-499740/4				
Misc. Info.:	280-0092952-046				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				

First Level Reviewer: zhangji Date: 02-Jul-2020 13:05:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2099	104.97

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

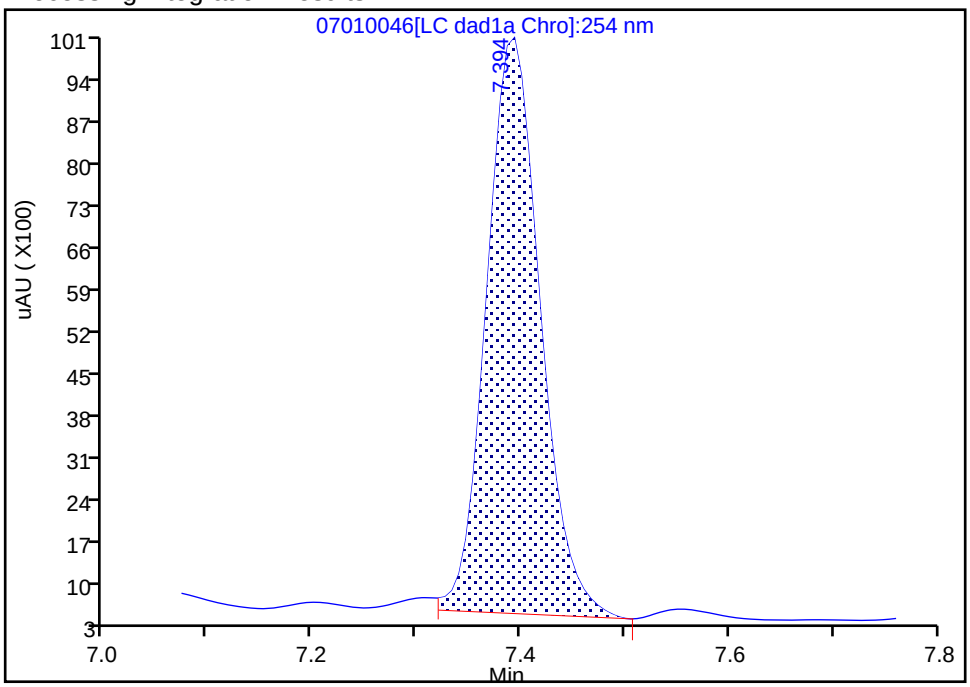
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010046.d				
Injection Date:	02-Jul-2020 08:12:04	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-499740/4-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

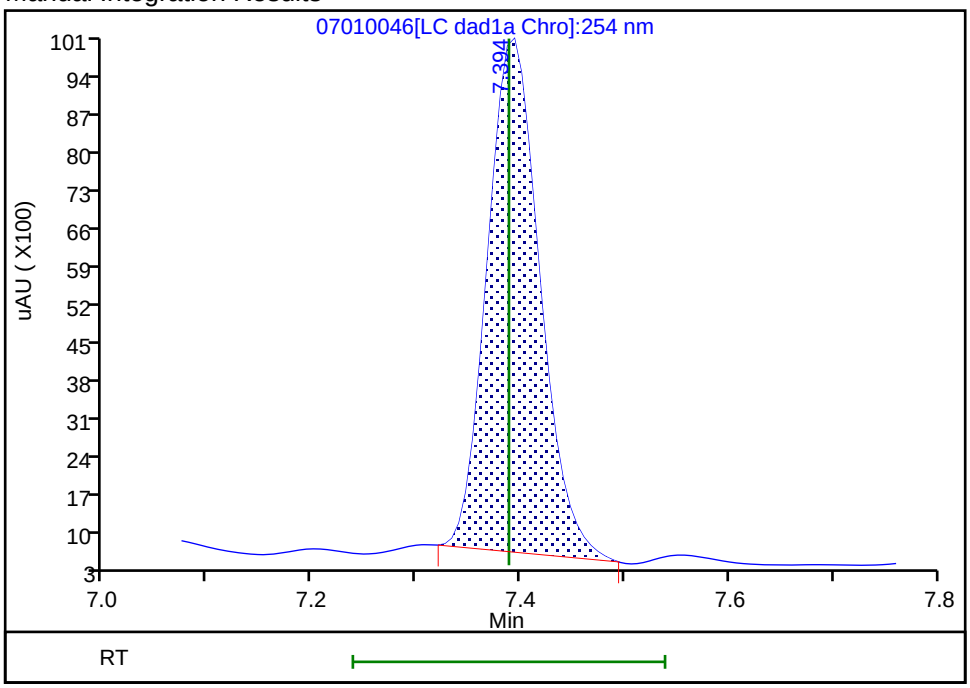
Processing Integration Results

RT: 7.39
Area: 34149
Amount: 0.215391
Amount Units: ug/mL



Manual Integration Results

RT: 7.39
Area: 32969
Amount: 0.207948
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:05:18
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-499740/3-A
Matrix: Water
Lab File ID: 07010045.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 500(mL)
Date Analyzed: 07/02/2020 07:49
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500850
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.46		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.33		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.42	M	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.19	M	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.21	M	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.18	M	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	2.36	M	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	2.35	M	0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.95	M	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.95	M	0.41	0.40	0.10
2691-41-0	HMX	2.18	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	2.24		0.21	0.20	0.091
121-82-4	RDX	2.16		0.21	0.20	0.052
479-45-8	Tetryl	2.21		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010045.D
Lims ID: LCSD 280-499740/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 02-Jul-2020 07:49:05 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-499740/
Misc. Info.: 280-0092952-045
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Jul-2020 14:04:15 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1059

First Level Reviewer: zhangji Date: 02-Jul-2020 13:04:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.724	6.709	0.015	18778	0.2000	0.2184	M
7 RDX	1	7.804	7.789	0.015	25242	0.2000	0.2165	
8 2,4,6-Trinitrophenol	1	8.111	8.109	0.002	20428	0.2000	0.2400	
$ 9 1,2-Dinitrobenzene	1	8.771	8.763	0.008	27149	0.2000	0.1964	
10 1,3,5-Trinitrobenzene	1	8.951	8.936	0.015	56585	0.2000	0.2457	
11 1,3-Dinitrobenzene	1	9.604	9.596	0.008	71341	0.2000	0.2326	
12 Nitrobenzene	1	9.978	9.982	-0.004	44813	0.2000	0.2236	
14 Tetryl	1	10.304	10.309	-0.005	39124	0.2000	0.2210	
15 Nitroglycerin	2	10.811	10.822	-0.011	148882	2.00	2.19	
16 2,4,6-Trinitrotoluene	1	11.278	11.282	-0.004	49327	0.2000	0.2418	M
17 4-Amino-2,6-dinitrotoluene	1	11.451	11.469	-0.018	33532	0.2000	0.1945	M
18 2-Amino-4,6-dinitrotoluene	1	11.744	11.756	-0.012	44269	0.2000	0.2183	M
19 2,6-Dinitrotoluene	1	11.878	11.896	-0.018	33089	0.2000	0.2214	M
20 2,4-Dinitrotoluene	1	12.084	12.096	-0.012	66409	0.2000	0.2187	M
21 o-Nitrotoluene	1	12.918	12.936	-0.018	31821	0.2000	0.2356	M
22 p-Nitrotoluene	1	13.358	13.382	-0.024	22018	0.2000	0.1948	M
23 m-Nitrotoluene	1	13.984	13.982	0.002	33675	0.2000	0.2354	M
24 PETN	2	15.058	15.129	-0.071	160910	2.00	2.05	M

QC Flag Legend

Review Flags

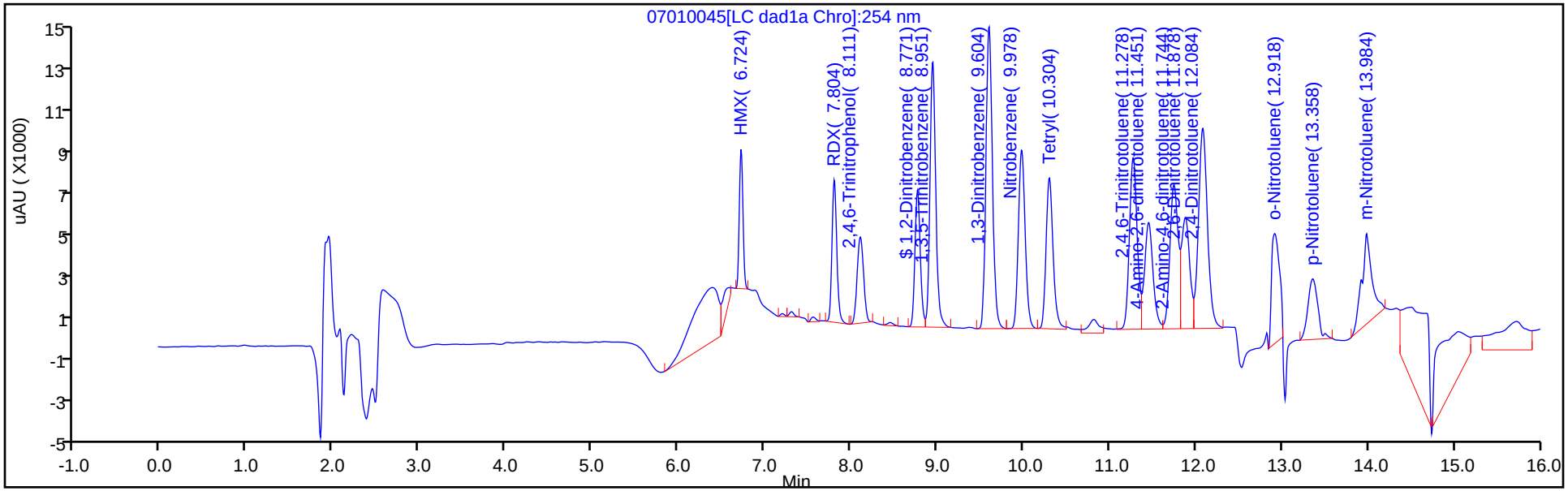
M - Manually Integrated

Report Date: 02-Jul-2020 14:04:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

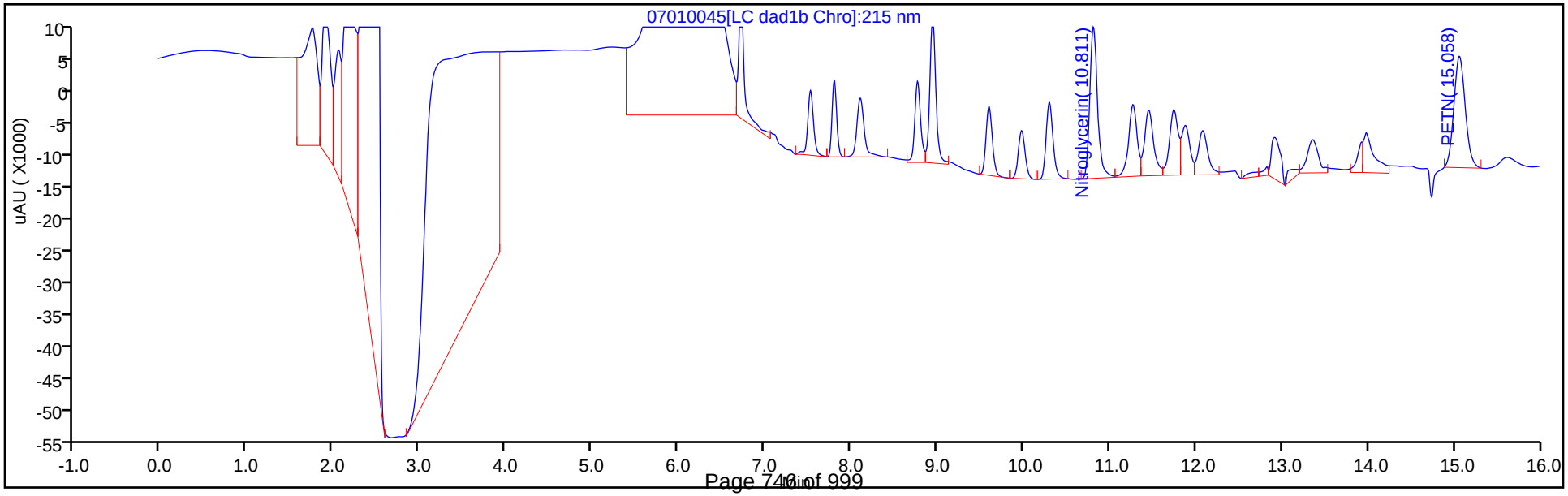
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCSD 280-499740/3-A			Worklist Smp#:	45
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010045.D				
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	02-Jul-2020 07:49:05	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-499740/				
Misc. Info.:	280-0092952-045				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				
First Level Reviewer: zhangji		Date:	02-Jul-2020 13:04:55		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1964	98.21

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

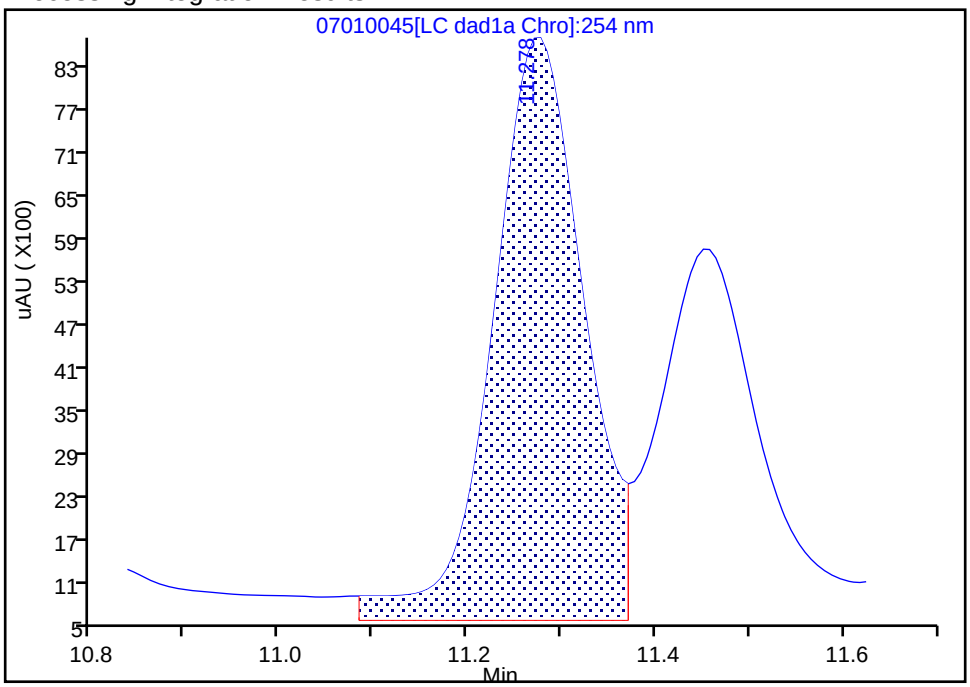
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

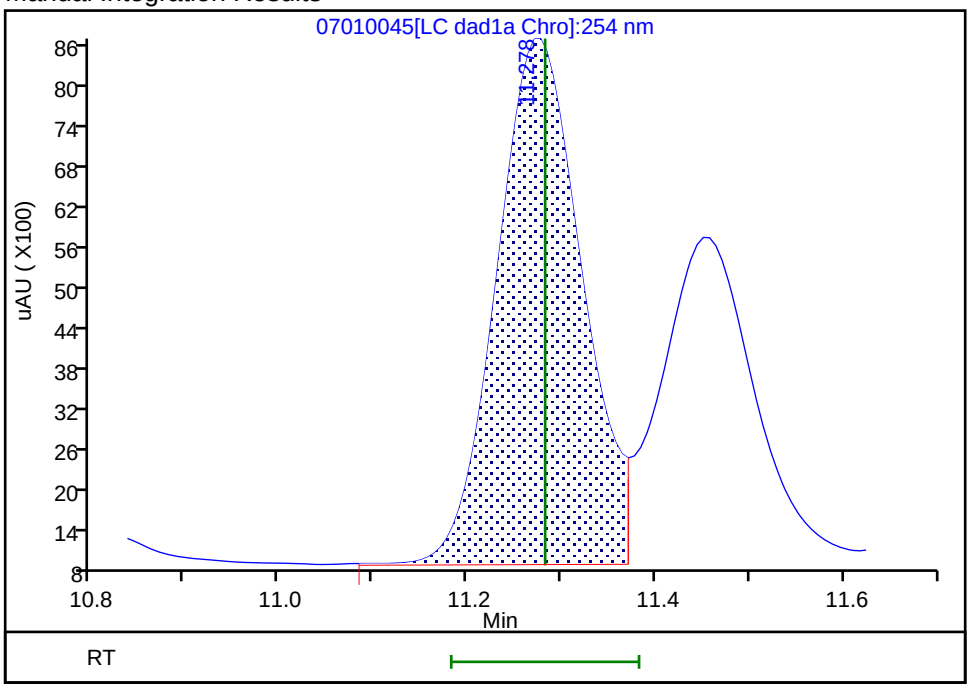
Processing Integration Results

RT: 11.28
Area: 54848
Amount: 0.268822
Amount Units: ug/mL



Manual Integration Results

RT: 11.28
Area: 49327
Amount: 0.241762
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

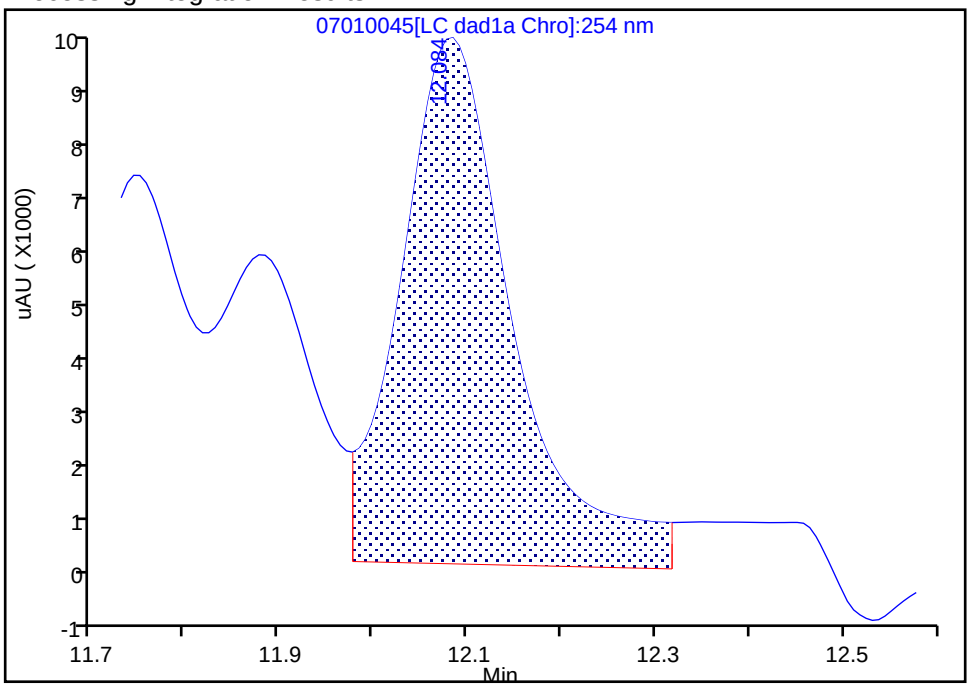
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

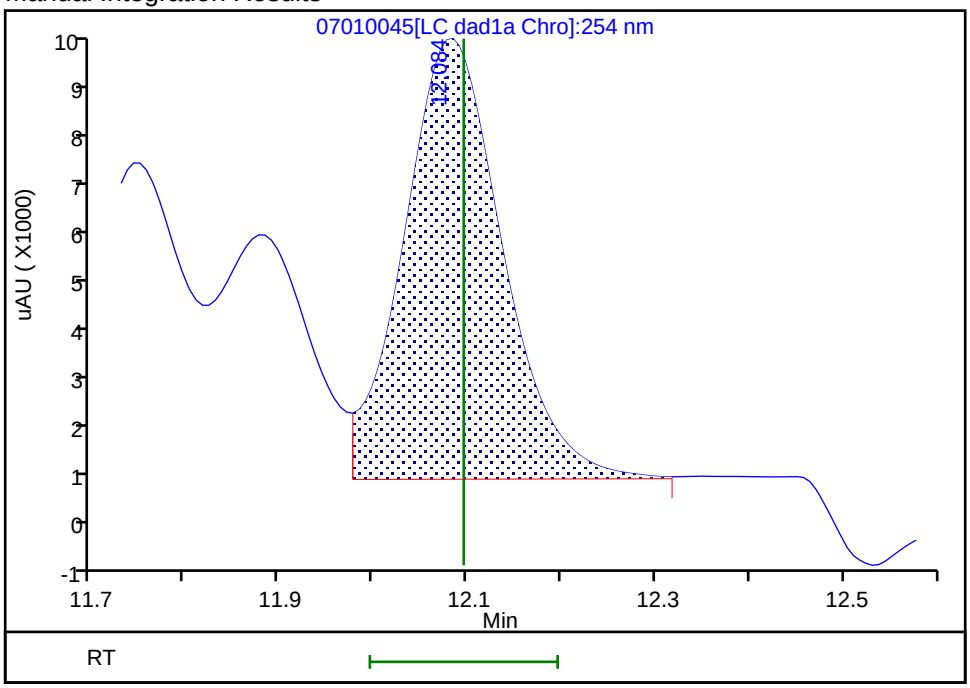
Processing Integration Results

RT: 12.08
Area: 81688
Amount: 0.269079
Amount Units: ug/mL



Manual Integration Results

RT: 12.08
Area: 66409
Amount: 0.218750
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

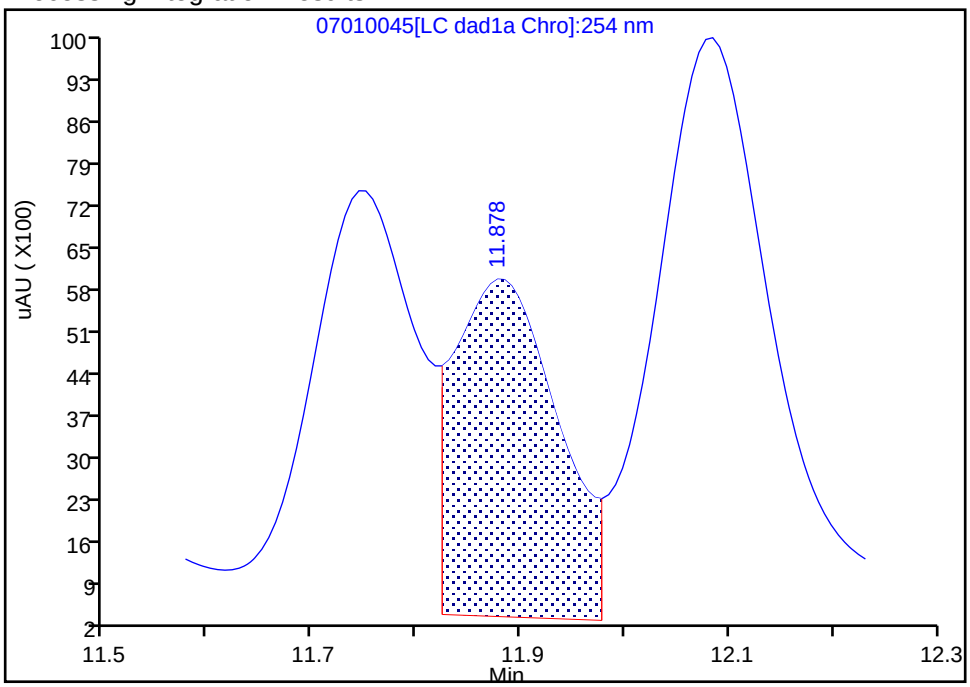
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

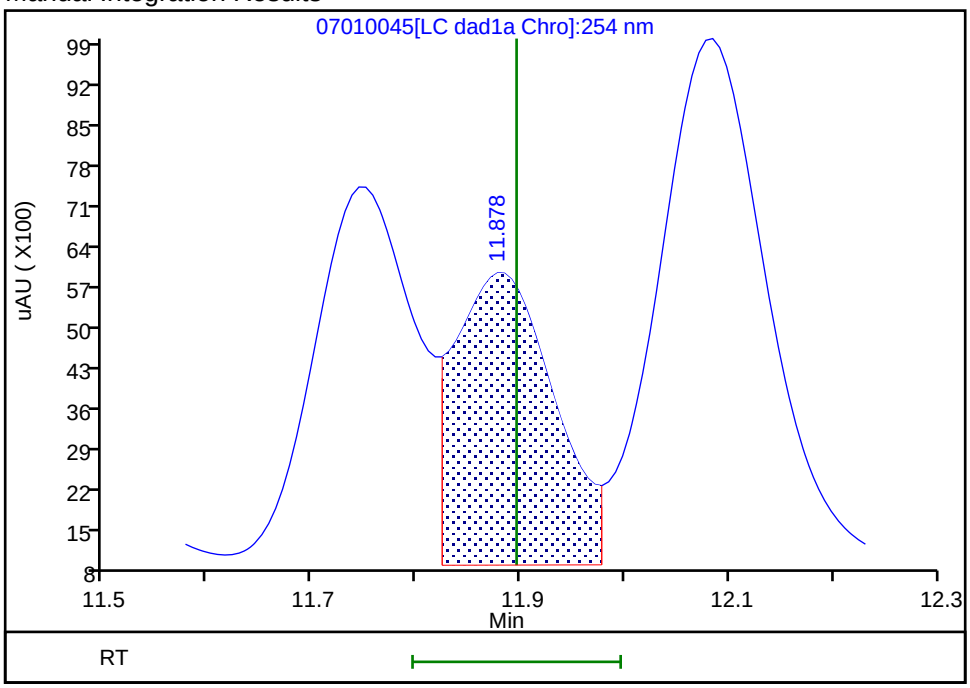
Processing Integration Results

RT: 11.88
Area: 38784
Amount: 0.259507
Amount Units: ug/mL



Manual Integration Results

RT: 11.88
Area: 33089
Amount: 0.221402
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

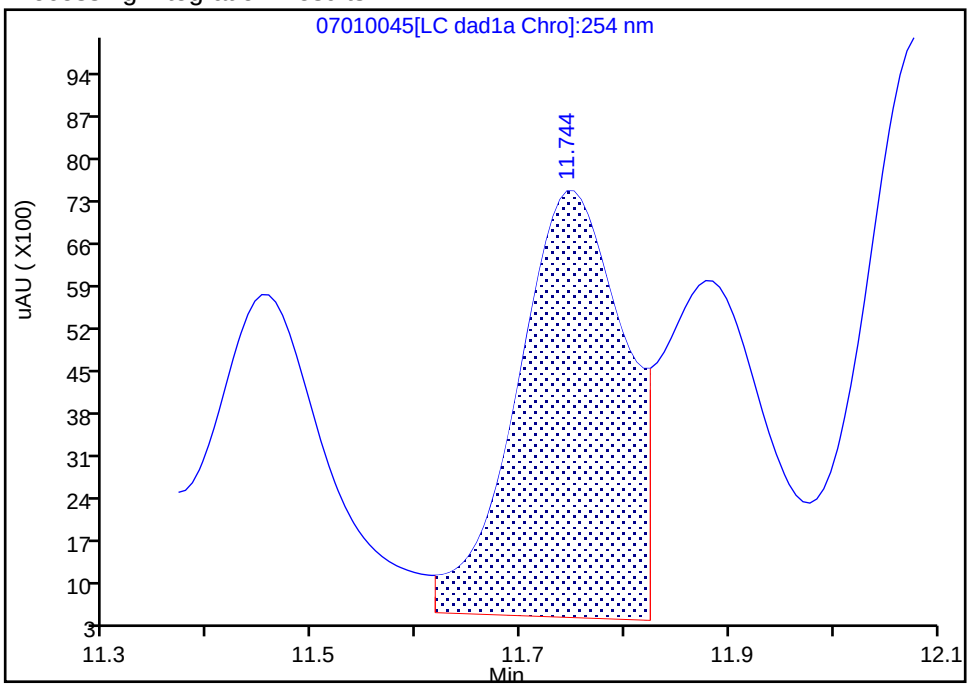
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

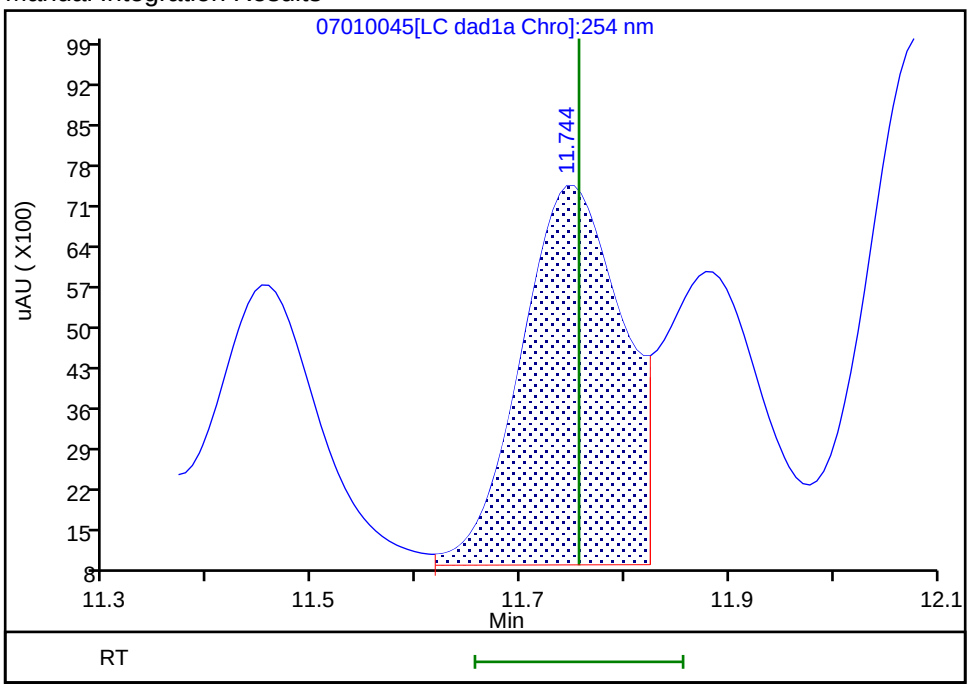
Processing Integration Results

RT: 11.74
Area: 50432
Amount: 0.248658
Amount Units: ug/mL



Manual Integration Results

RT: 11.74
Area: 44269
Amount: 0.218271
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

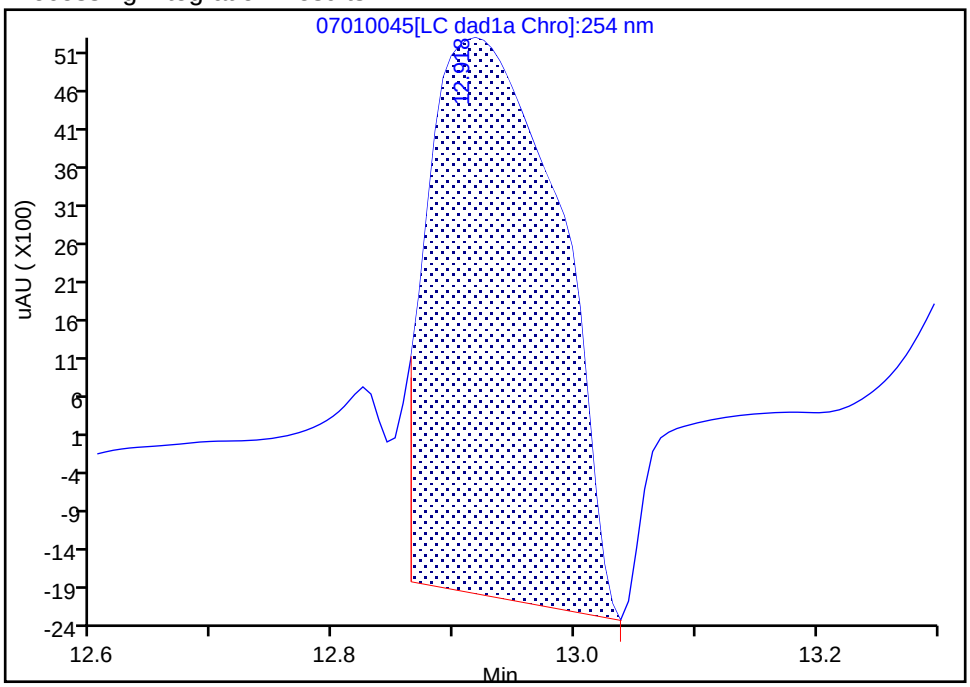
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

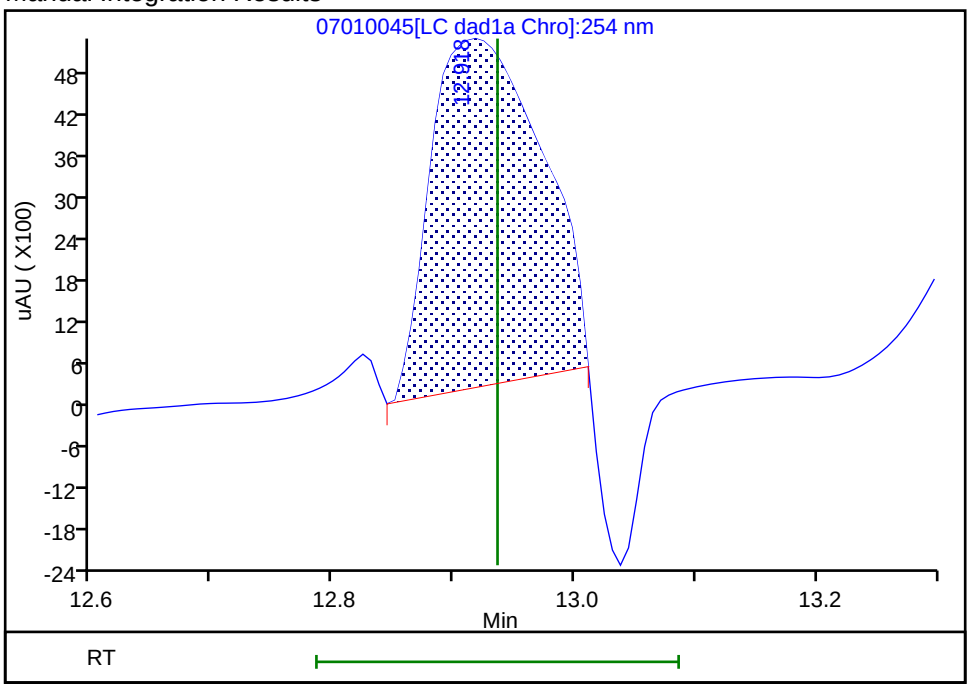
Processing Integration Results

RT: 12.92
Area: 53398
Amount: 0.395392
Amount Units: ug/mL



Manual Integration Results

RT: 12.92
Area: 31821
Amount: 0.235622
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:53

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

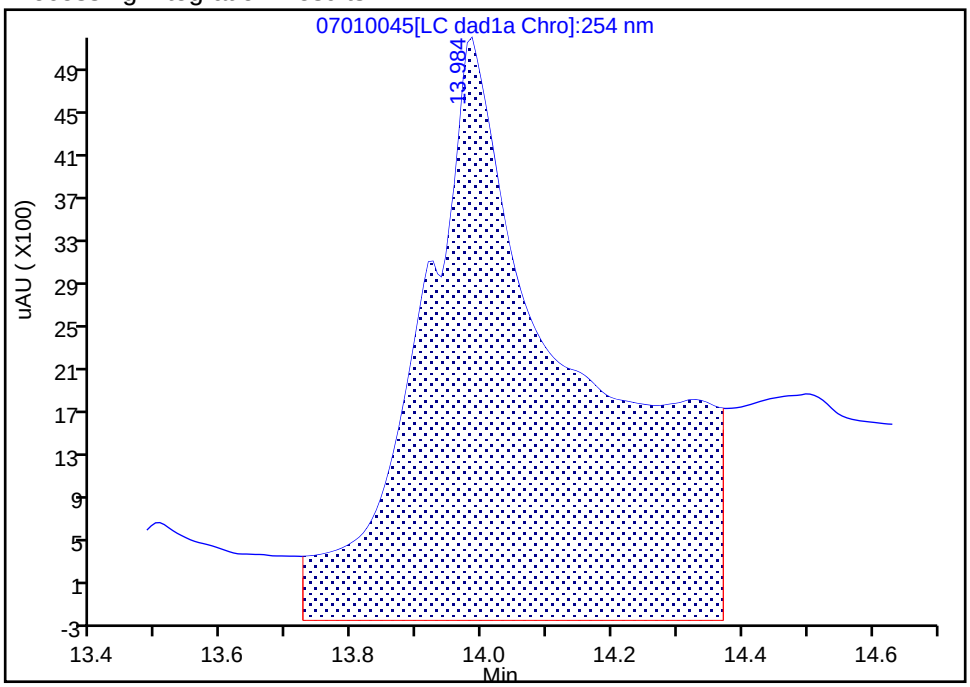
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

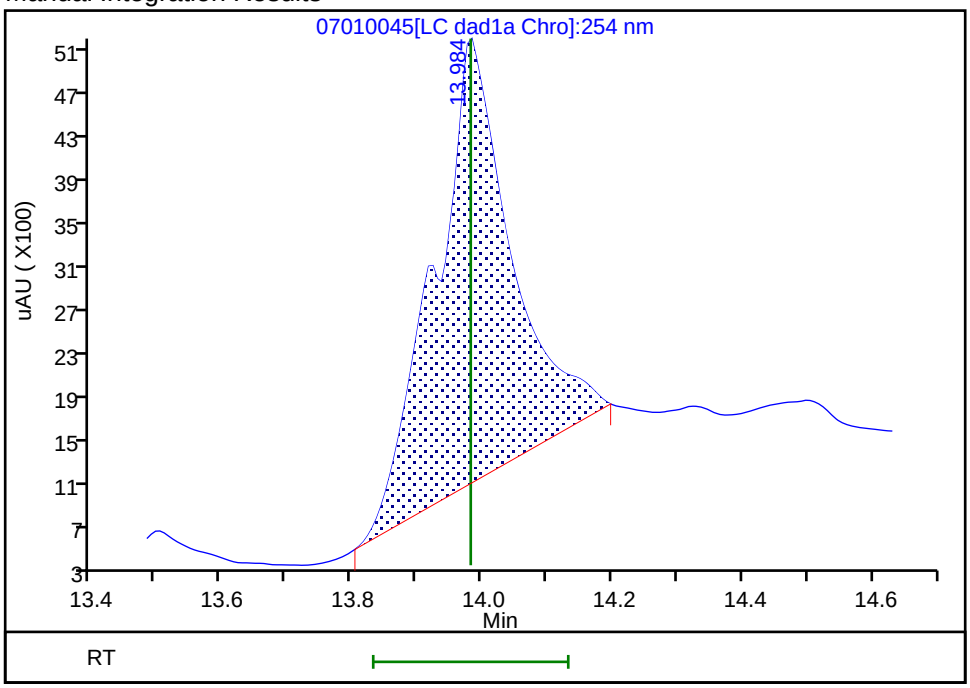
Processing Integration Results

RT: 13.98
Area: 91334
Amount: 0.638571
Amount Units: ug/mL



Manual Integration Results

RT: 13.98
Area: 33675
Amount: 0.235442
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:42

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

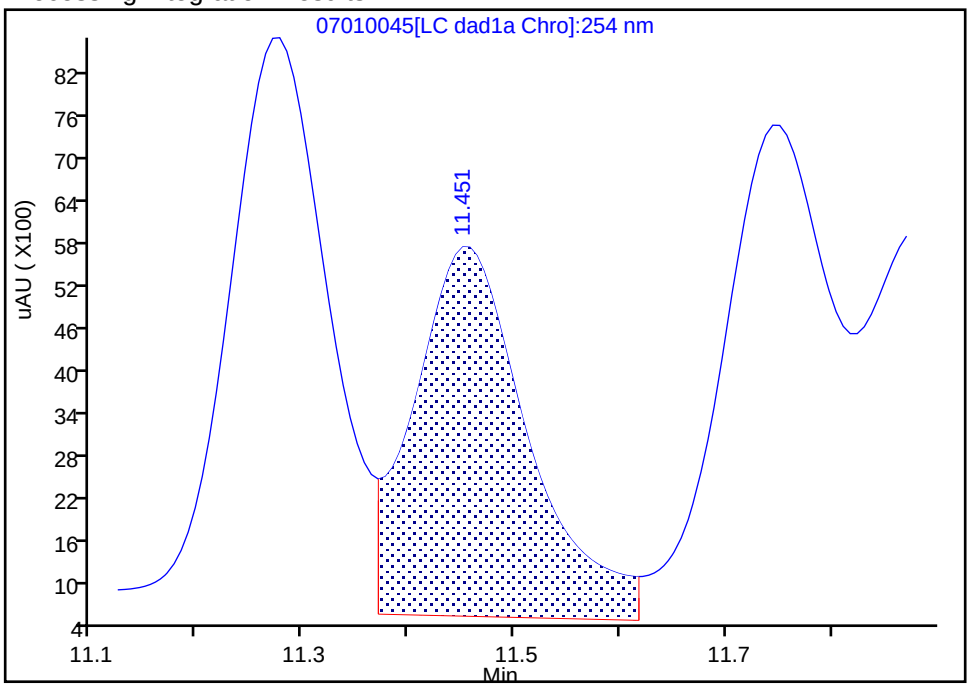
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

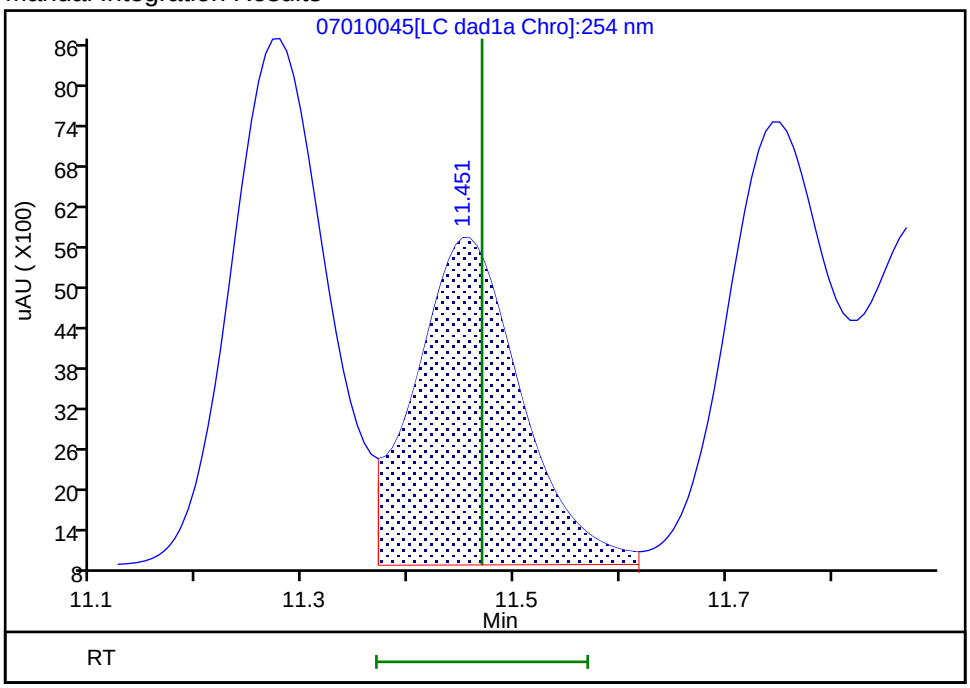
Processing Integration Results

RT: 11.45
Area: 39127
Amount: 0.225879
Amount Units: ug/mL



Manual Integration Results

RT: 11.45
Area: 33532
Amount: 0.194512
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

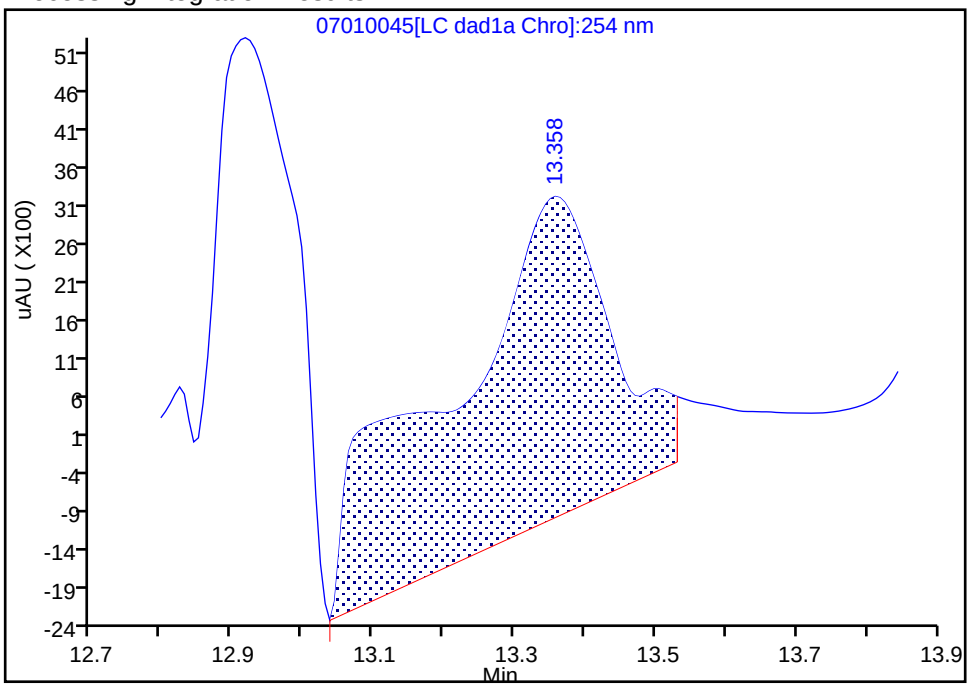
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

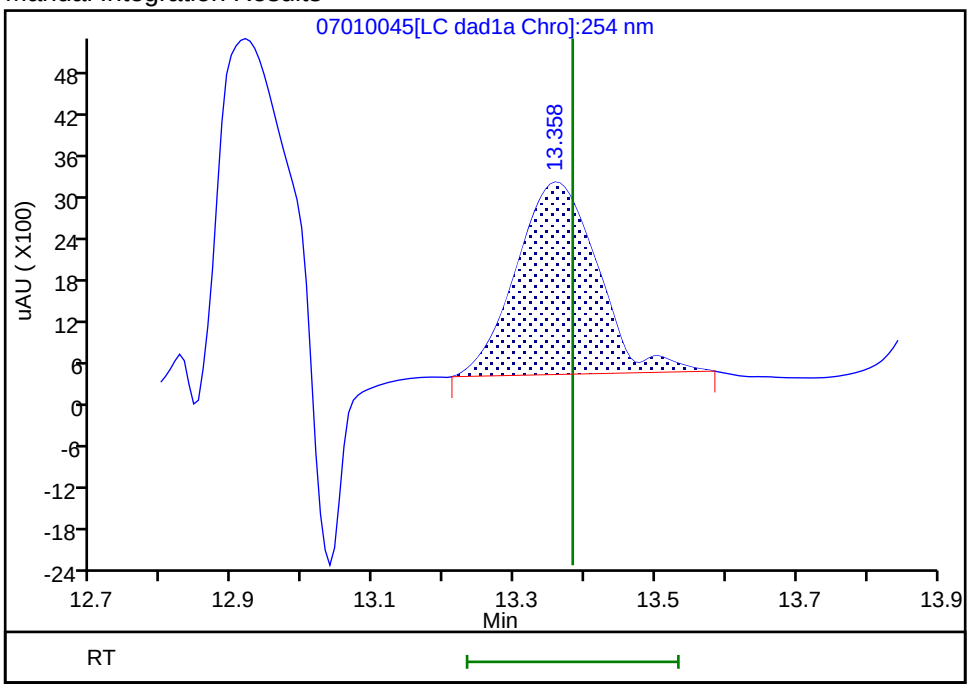
Processing Integration Results

RT: 13.36
Area: 68563
Amount: 0.606725
Amount Units: ug/mL



Manual Integration Results

RT: 13.36
Area: 22018
Amount: 0.194841
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

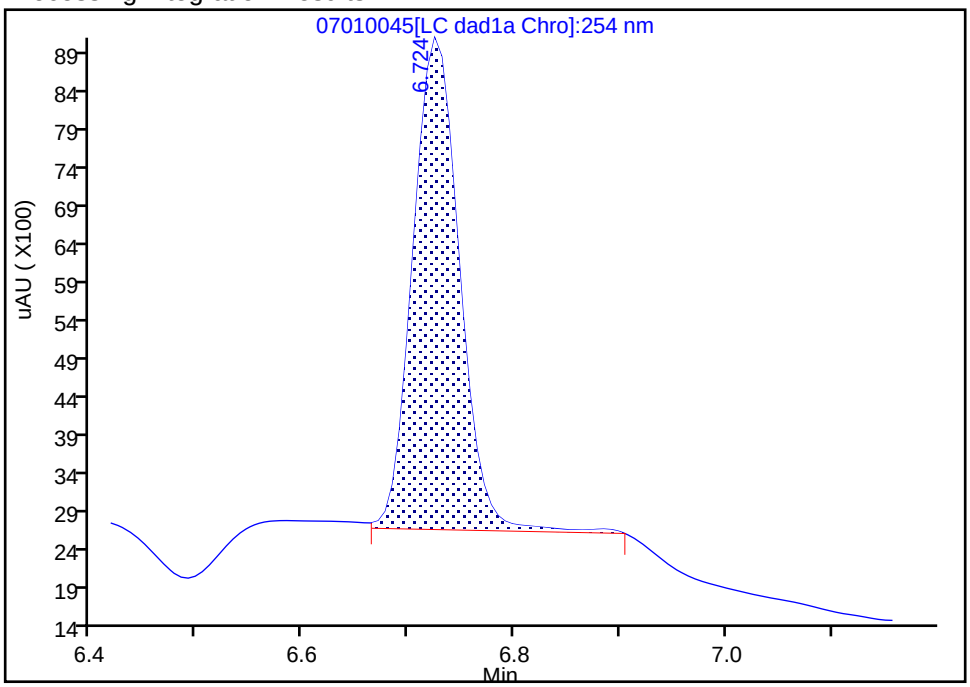
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010045.d				
Injection Date:	02-Jul-2020 07:49:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

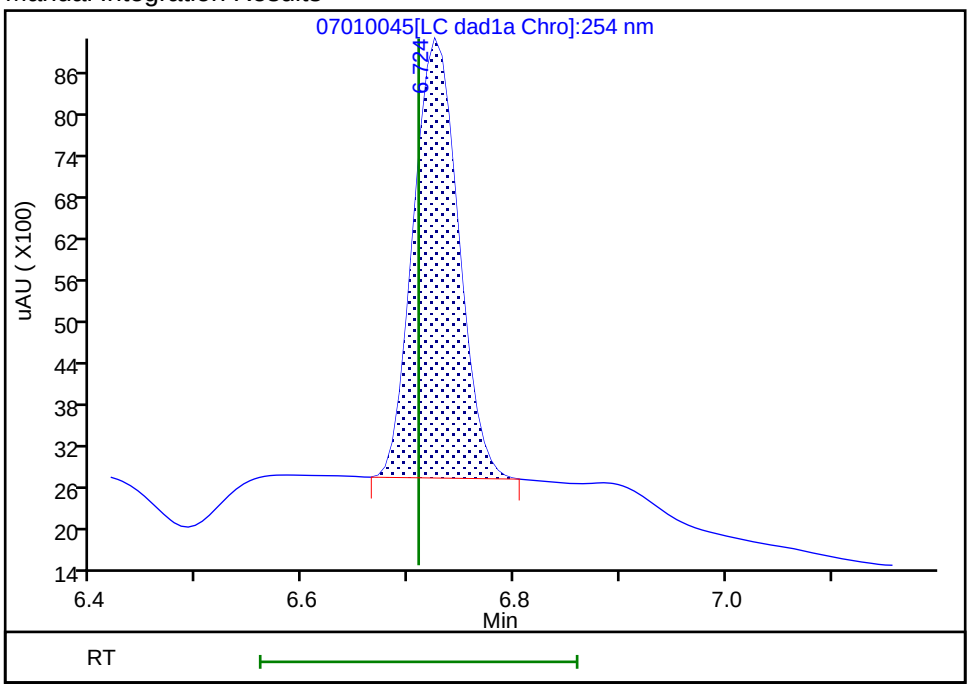
Processing Integration Results

RT: 6.72
Area: 19681
Amount: 0.228950
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 18778
Amount: 0.218445
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:04:10

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-499740/5-A
Matrix: Water
Lab File ID: 07010047.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/23/2020 10:47
Sample wt/vol: 500(mL)
Date Analyzed: 07/02/2020 08:35
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 500850
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.18	M	2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104	M	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010047.D				
Lims ID:	LCSD 280-499740/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	02-Jul-2020 08:35:07	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-499740/				
Misc. Info.:	280-0092952-047				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				
First Level Reviewer: zhangji		Date:	02-Jul-2020 13:06:05		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.622	6.609	0.013	39262	0.2002	0.1804	M
5 DNX	1	6.942	6.935	0.007	30106	0.2002	0.1969	M
6 MNX	1	7.396	7.389	0.007	34532	0.2334	0.2178	M
$ 9 1,2-Dinitrobenzene	1	8.762	8.763	-0.001	28777	0.2000	0.2082	M

QC Flag Legend

Review Flags

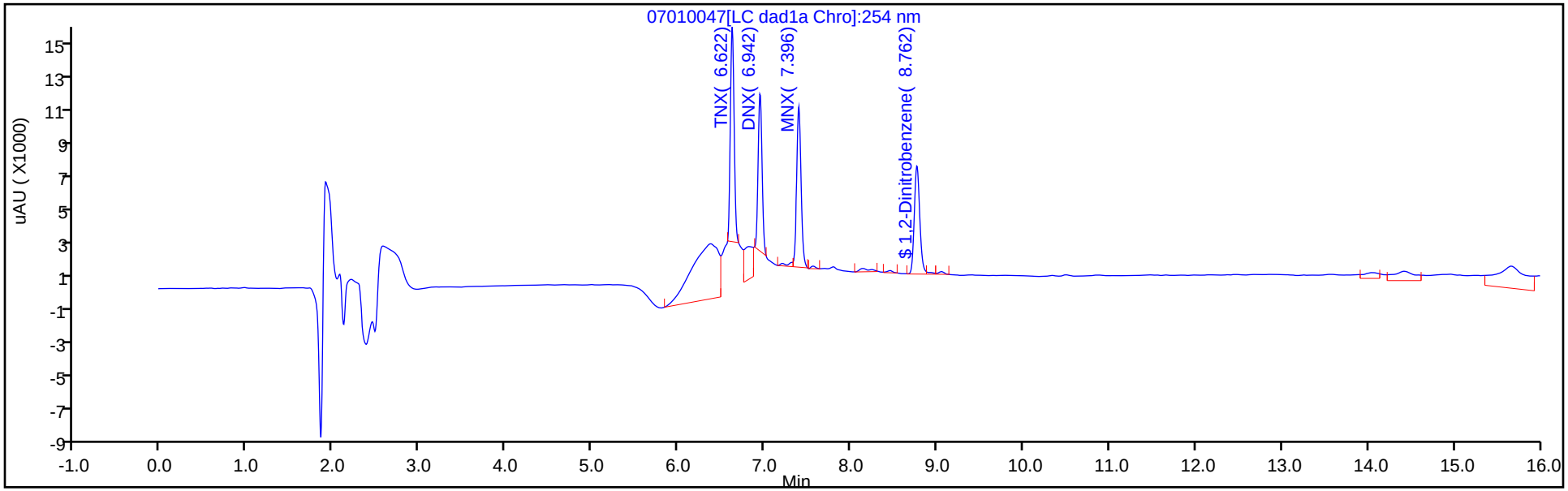
M - Manually Integrated

Report Date: 02-Jul-2020 14:04:18 Chrom Revision: 2.3 21-Jun-2020 18:30:46

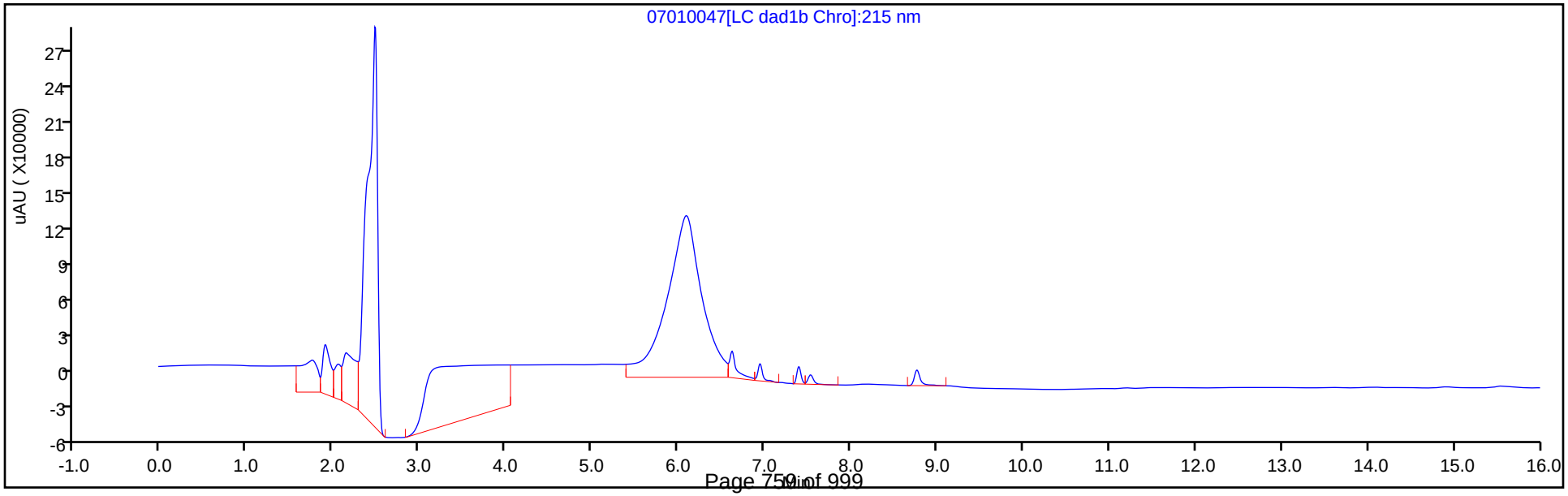
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010047.d				
Injection Date:	02-Jul-2020 08:35:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCSD 280-499740/5-A			Worklist Smp#:	47
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	47
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\07010047.D				
Lims ID:	LCSD 280-499740/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	02-Jul-2020 08:35:07	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-499740/				
Misc. Info.:	280-0092952-047				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200701-92952.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	02-Jul-2020 14:04:15	Calib Date:	26-Jun-2020 01:16:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1059				
First Level Reviewer: zhangji		Date:	02-Jul-2020 13:06:05		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2082	104.10

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

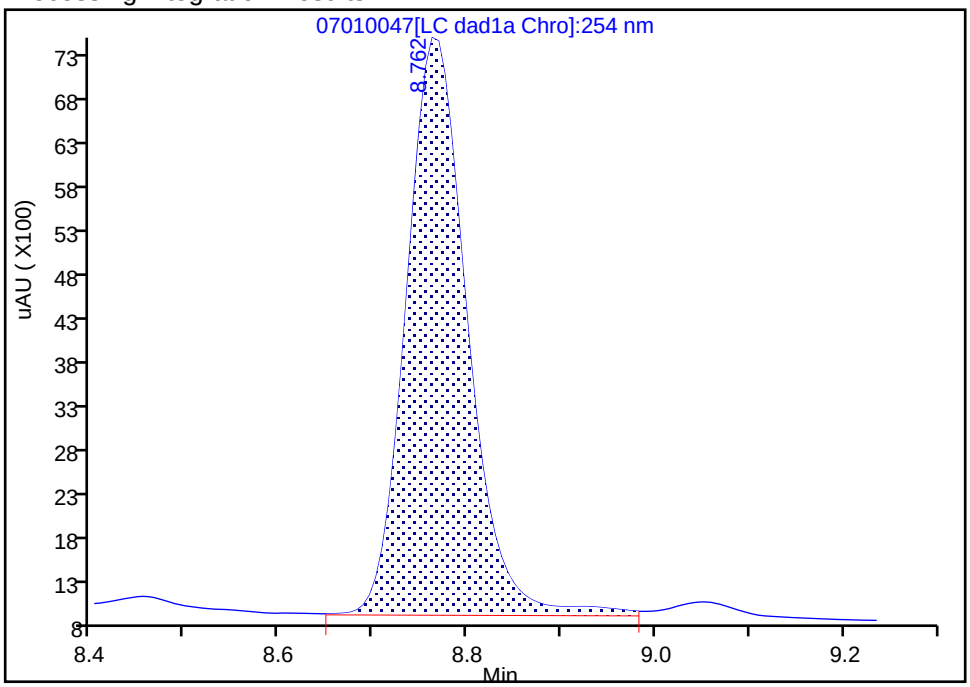
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010047.d				
Injection Date:	02-Jul-2020 08:35:07	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/5-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

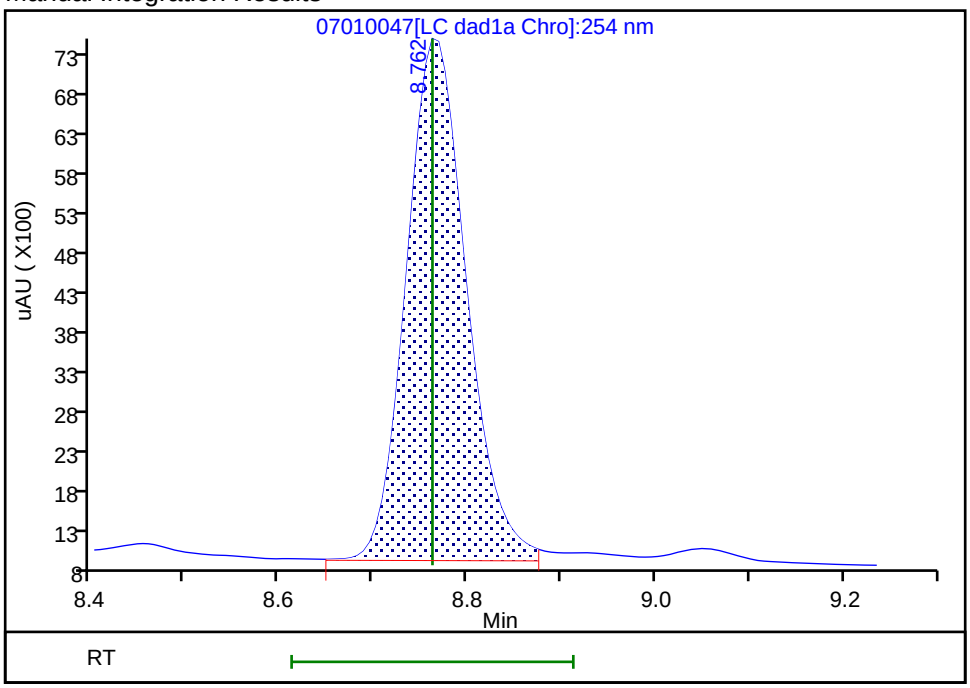
Processing Integration Results

RT: 8.76
Area: 29371
Amount: 0.212507
Amount Units: ug/mL



Manual Integration Results

RT: 8.76
Area: 28777
Amount: 0.208209
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:05:52
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

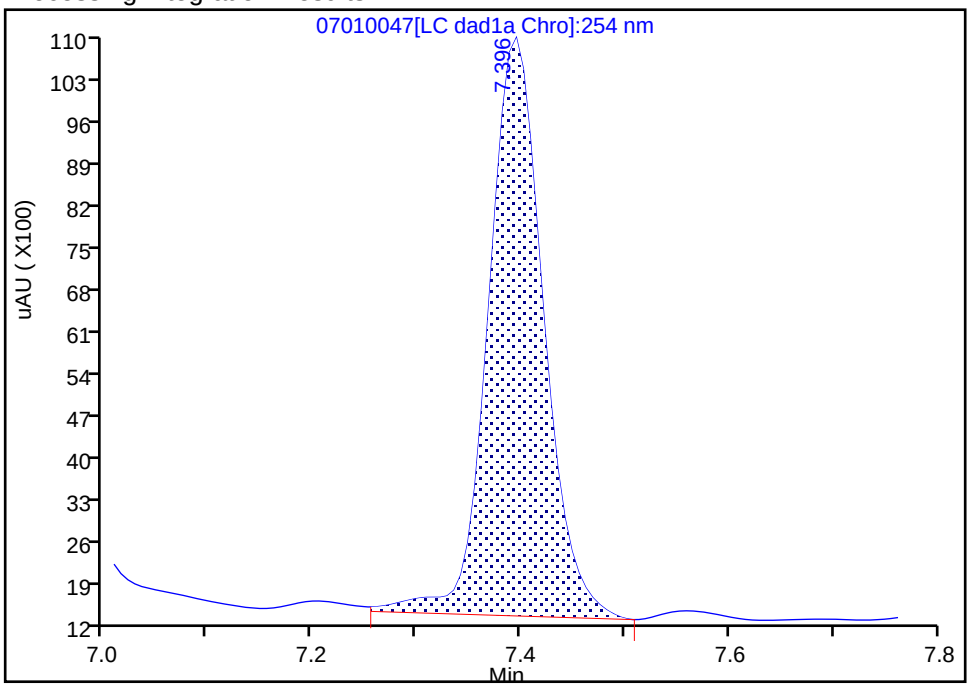
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200701-92952.b\07010047.d				
Injection Date:	02-Jul-2020 08:35:07	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-499740/5-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

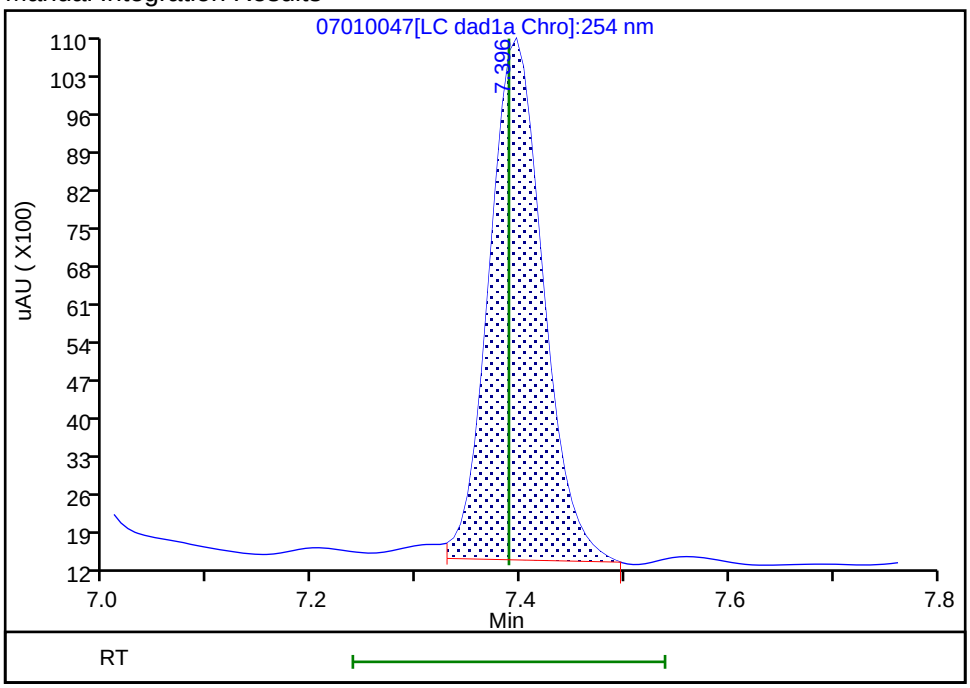
Processing Integration Results

RT: 7.40
Area: 35657
Amount: 0.224903
Amount Units: ug/mL



Manual Integration Results

RT: 7.40
Area: 34532
Amount: 0.217807
Amount Units: ug/mL



Reviewer: zhangji, 02-Jul-2020 13:06:02
Audit Action: Split an Integrated Peak Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/04/2020 14:07

Analysis Batch Number: 487658 End Date: 03/05/2020 00:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-487658/7		03/04/2020 14:07	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/8		03/04/2020 14:30	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/9		03/04/2020 14:53	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/10		03/04/2020 15:16	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/11		03/04/2020 15:39	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/12		03/04/2020 16:01	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/13		03/04/2020 16:24	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/14		03/04/2020 16:47	1		UltraCarb5uODS 4.6(mm)
ICV 280-487658/15		03/04/2020 17:10	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/16		03/04/2020 17:33	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/17		03/04/2020 17:56	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/18		03/04/2020 18:19	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/19		03/04/2020 18:42	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/20		03/04/2020 19:05	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/21		03/04/2020 19:28	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/22		03/04/2020 19:51	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/23		03/04/2020 20:14	1		UltraCarb5uODS 4.6(mm)
ICV 280-487658/24		03/04/2020 20:37	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/25		03/04/2020 21:00	1	03040025.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/26		03/04/2020 21:23	1	03040026.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/27		03/04/2020 21:45	1	03040027.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/28		03/04/2020 22:09	1	03040028.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/29		03/04/2020 22:31	1	03040029.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/30		03/04/2020 22:54	1	03040030.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/31		03/04/2020 23:17	1	03040031.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/32		03/04/2020 23:40	1	03040032.D	UltraCarb5uODS 4.6(mm)
ICV 280-487658/33		03/05/2020 00:03	1	03040033.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/18/2020 11:35

Analysis Batch Number: 489145 End Date: 03/18/2020 15:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-489145/7		03/18/2020 11:35	1	03180007.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/8		03/18/2020 11:58	1	03180008.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/9		03/18/2020 12:21	1	03180009.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/10		03/18/2020 12:44	1	03180010.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/11		03/18/2020 13:07	1	03180011.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/12		03/18/2020 13:30	1	03180012.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/13		03/18/2020 13:53	1	03180013.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/14		03/18/2020 14:16	1	03180014.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/15		03/18/2020 14:39	1	03180015.D	UltraCarb5uODS 4.6(mm)
ICV 280-489145/16		03/18/2020 15:02	1	03180016.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-494886/7		05/14/2020 16:16	1	05140007.D	Luna-phenylhex 4.6(mm)
IC 280-494886/8		05/14/2020 16:51	1	05140008.D	Luna-phenylhex 4.6(mm)
IC 280-494886/9		05/14/2020 17:26	1	05140009.D	Luna-phenylhex 4.6(mm)
IC 280-494886/10		05/14/2020 18:01	1	05140010.D	Luna-phenylhex 4.6(mm)
IC 280-494886/11		05/14/2020 18:36	1	05140011.D	Luna-phenylhex 4.6(mm)
IC 280-494886/12		05/14/2020 19:11	1	05140012.D	Luna-phenylhex 4.6(mm)
IC 280-494886/13		05/14/2020 19:46	1	05140013.D	Luna-phenylhex 4.6(mm)
IC 280-494886/14		05/14/2020 20:21	1	05140014.D	Luna-phenylhex 4.6(mm)
IC 280-494886/15		05/14/2020 20:56	1	05140015.D	Luna-phenylhex 4.6(mm)
ICV 280-494886/16		05/14/2020 21:31	1	05140016.D	Luna-phenylhex 4.6(mm)
IC 280-494886/17		05/14/2020 22:06	1	05140017.D	Luna-phenylhex 4.6(mm)
IC 280-494886/18		05/14/2020 22:41	1	05140018.D	Luna-phenylhex 4.6(mm)
IC 280-494886/19		05/14/2020 23:16	1	05140019.D	Luna-phenylhex 4.6(mm)
IC 280-494886/20		05/14/2020 23:51	1	05140020.D	Luna-phenylhex 4.6(mm)
IC 280-494886/21		05/15/2020 00:26	1	05140021.D	Luna-phenylhex 4.6(mm)
IC 280-494886/22		05/15/2020 01:01	1	05140022.D	Luna-phenylhex 4.6(mm)
IC 280-494886/23		05/15/2020 01:36	1	05140023.D	Luna-phenylhex 4.6(mm)
IC 280-494886/24		05/15/2020 02:11	1	05140024.D	Luna-phenylhex 4.6(mm)
IC 280-494886/25		05/15/2020 02:46	1		Luna-phenylhex 4.6(mm)
ICV 280-494886/26		05/15/2020 03:21	1	05140026.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 03:56	50		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 04:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 05:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/30		05/15/2020 05:41	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/31		05/15/2020 06:16	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 06:51	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 07:26	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:01	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:36	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:11	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:46	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 11:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 12:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/42		05/15/2020 12:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/43		05/15/2020 13:15	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 13:50	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 14:25	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:00	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:35	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:10	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:55	1		Luna-phenylhex 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/15/2020 18:30	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 19:05	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/54		05/15/2020 19:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/55		05/15/2020 20:15	1		Luna-phenylhex 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 07/02/2020 06:17

Analysis Batch Number: 500850 End Date: 07/02/2020 13:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-500850/41		07/02/2020 06:17	1	07010041.D	UltraCarb5uODS 4.6(mm)
CCV 280-500850/42		07/02/2020 06:40	1	07010042.D	UltraCarb5uODS 4.6(mm)
MB 280-499740/1-A		07/02/2020 07:03	1	07010043.D	UltraCarb5uODS 4.6(mm)
LCS 280-499740/2-A		07/02/2020 07:26	1	07010044.D	UltraCarb5uODS 4.6(mm)
LCSD 280-499740/3-A		07/02/2020 07:49	1	07010045.D	UltraCarb5uODS 4.6(mm)
LCS 280-499740/4-A		07/02/2020 08:12	1	07010046.D	UltraCarb5uODS 4.6(mm)
LCSD 280-499740/5-A		07/02/2020 08:35	1	07010047.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 08:58	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 09:21	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 09:44	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 10:07	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 10:30	1		UltraCarb5uODS 4.6(mm)
CCV 280-500850/53		07/02/2020 10:53	1	07010053.D	UltraCarb5uODS 4.6(mm)
CCV 280-500850/54		07/02/2020 11:16	1	07010054.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 11:39	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 12:02	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 12:25	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 12:48	1		UltraCarb5uODS 4.6(mm)
CCV 280-500850/59		07/02/2020 13:11	1		UltraCarb5uODS 4.6(mm)
CCV 280-500850/60		07/02/2020 13:34	1		UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 07/02/2020 19:39

Analysis Batch Number: 500997 End Date: 07/03/2020 00:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-500997/14		07/02/2020 19:39	1	07020014.D	UltraCarb5uODS 4.6(mm)
CCV 280-500997/15		07/02/2020 20:02	1	07020015.D	UltraCarb5uODS 4.6(mm)
CCV 280-500997/16		07/02/2020 20:26	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 20:49	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 21:12	200		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 21:35	200		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 21:58	20		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 22:21	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		07/02/2020 22:44	1		UltraCarb5uODS 4.6(mm)
280-137848-2		07/02/2020 23:07	1	07020023.D	UltraCarb5uODS 4.6(mm)
280-137848-1		07/02/2020 23:30	1	07020024.D	UltraCarb5uODS 4.6(mm)
CCV 280-500997/25		07/02/2020 23:53	1	07020025.D	UltraCarb5uODS 4.6(mm)
CCV 280-500997/26		07/03/2020 00:16	1	07020026.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 07/03/2020 05:38

Analysis Batch Number: 501007 End Date: 07/03/2020 15:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-501007/24		07/03/2020 05:38	1		Luna-phenylhex 4.6(mm)
CCV 280-501007/25		07/03/2020 06:13	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 06:48	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 07:23	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 07:58	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 08:33	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 09:08	1		Luna-phenylhex 4.6(mm)
CCV 280-501007/31		07/03/2020 09:43	1	07020031.D	Luna-phenylhex 4.6(mm)
CCV 280-501007/32		07/03/2020 10:18	1	07020032.D	Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 10:53	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 11:28	1		Luna-phenylhex 4.6(mm)
280-137848-1		07/03/2020 12:03	1	07020035.D	Luna-phenylhex 4.6(mm)
280-137848-2		07/03/2020 12:38	1	07020036.D	Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 13:13	1		Luna-phenylhex 4.6(mm)
ZZZZZ		07/03/2020 13:48	1		Luna-phenylhex 4.6(mm)
CCV 280-501007/40		07/03/2020 14:58	1	07020040.D	Luna-phenylhex 4.6(mm)
CCV 280-501007/39		07/03/2020 15:33	1	007-3901.D	Luna-phenylhex 4.6(mm)

8330A

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499740 Batch Start Date: 06/23/20 10:47 Batch Analyst: Adams, Marisa L

Batch Method: 3535 Batch End Date: 06/23/20 12:17

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00099	8330_OP_DMT 00008
MB 280-499740/1		3535, 8330A				500 mL	5 mL		
LCS 280-499740/2		3535, 8330A				500 mL	5 mL	0.1 mL	
LCSD 280-499740/3		3535, 8330A				500 mL	5 mL	0.1 mL	
LCS 280-499740/4		3535, 8330A				500 mL	5 mL		0.1 mL
LCSD 280-499740/5		3535, 8330A				500 mL	5 mL		0.1 mL
280-137848-A-1	PZ018-20A	3535, 8330A	T	716.3 g	255.1 g	461.2 mL	5 mL		
280-137848-A-2	G0090-20A	3535, 8330A	T	725.7 g	256.6 g	469.1 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00117	AnalysisComment				
MB 280-499740/1		3535, 8330A		0.1 mL					
LCS 280-499740/2		3535, 8330A		0.1 mL	8330				
LCSD 280-499740/3		3535, 8330A		0.1 mL	8330				
LCS 280-499740/4		3535, 8330A		0.1 mL	DMT				
LCSD 280-499740/5		3535, 8330A		0.1 mL	DMT				
280-137848-A-1	PZ018-20A	3535, 8330A	T	0.1 mL					
280-137848-A-2	G0090-20A	3535, 8330A	T	0.1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499740 Batch Start Date: 06/23/20 10:47 Batch Analyst: Adams, Marisa L

Batch Method: 3535 Batch End Date: 06/23/20 12:17

Batch Notes	
Acid ID	CaCl2_Sol_00071
Acid Name	CaCl2
Balance ID	24350888
Batch Comment	DV-OP-0017 Mantel:A
First End time	06/23/2020 11:55
Pipette/Syringe/Dispenser ID	Jiji, DOD, Soot
Rinse Solvent Lot	0.1%AAinACN_00138
Rinse Solvent Name	0.1%AAinACN
Solvent Lot #	ACN_00234
Solvent Name	Acetonitrile
SPE Cartridge Lot ID	005130024A
SPE Cartridge Type	Porapak RDX
Analyst ID - Spike Analyst	MA
Analyst ID - Spike Witness Analyst	Reviewer: EB
First Start time	06/23/2020 10:52

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG No.:

Project: Cornhusker (CHAAP)

Client Sample ID	Lab Sample ID
PZ018-20A	280-137848-1
G0090-20A	280-137848-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PZ018-20A
Lab Sample ID: 280-137848-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG ID.:
Matrix: Water
Date Sampled: 06/16/2020 15:15
Reporting Basis: WET
Date Received: 06/19/2020 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Total Kjeldahl	1.0	1.0	1.0	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	26	0.50	0.25	0.095	mg/L			5	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	67	5.0	2.5	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	96	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: PZ018-20A
Lab Sample ID: 280-137848-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG ID.:
Matrix: Water
Date Sampled: 06/16/2020 15:15
Reporting Basis: WET
Date Received: 06/19/2020 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	4.0	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0090-20A
Lab Sample ID: 280-137848-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG ID.:
Matrix: Water
Date Sampled: 06/16/2020 14:55
Reporting Basis: WET
Date Received: 06/19/2020 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.026	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Total Kjeldahl	1.0	1.0	1.0	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	3.1	0.10	0.050	0.019	mg/L			1	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	120	5.0	2.5	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	280	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0090-20A
Lab Sample ID: 280-137848-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137848-1
SDG ID.:
Matrix: Water
Date Sampled: 06/16/2020 14:55
Reporting Basis: WET
Date Received: 06/19/2020 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.6	1.0	1.0	0.35	mg/L			1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: BWH Batch Start Date: 06/23/2020

Reporting Units: mg/L Analytical Batch No.: 499930

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:43	Ammonia	0.527	0.501	105	90-110		350.1 ICV_00409
15	ICV	11:45	Ammonia	2.52	2.51	101	90-110		350.1 ICV_00409
16	ICB	11:47	Ammonia	0.050				U	
49	CCV	12:53	Ammonia	2.67	2.50	107	90-110		350.1 cal_00421
50	CCB	12:55	Ammonia	0.050				U	
64	CCVL	13:23	Ammonia	0.527	0.500	105	90-110		350.1 cal_00421
65	CCV	13:25	Ammonia	2.53	2.50	101	90-110		350.1 cal_00421
66	CCB	13:27	Ammonia	0.050				U	
80	CCVL	13:55	Ammonia	0.510	0.500	102	90-110		350.1 cal_00421
81	CCV	13:57	Ammonia	2.56	2.50	102	90-110		350.1 cal_00421
82	CCB	13:59	Ammonia	0.050				U	
96	CCVL	14:35	Ammonia	0.534	0.500	107	90-110		350.1 cal_00421
97	CCV	14:37	Ammonia	2.64	2.50	106	90-110		350.1 cal_00421
98	CCB	14:39	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: SVC Batch Start Date: 06/29/2020

Reporting Units: mg/L Analytical Batch No.: 500581

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	19:11	Nitrogen, Total Kjeldahl	5.23	5.00	105	90-110		TKN ICV 25_00094
14	ICB	19:12	Nitrogen, Total Kjeldahl	1.0				U	
65	CCV	20:16	Nitrogen, Total Kjeldahl	5.16	5.00	103	90-110		TKN 25ppm_00809
66	CCB	20:17	Nitrogen, Total Kjeldahl	1.0				U	
82	CCV	20:37	Nitrogen, Total Kjeldahl	5.47	5.00	109	90-110		TKN 25ppm_00809
85	CCB	20:41	Nitrogen, Total Kjeldahl	1.0				U	
99	CCV	20:58	Nitrogen, Total Kjeldahl	5.41	5.00	108	90-110		TKN 25ppm_00809
100	CCB	20:59	Nitrogen, Total Kjeldahl	1.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: SVC Batch Start Date: 06/28/2020

Reporting Units: mg/L Analytical Batch No.: 500436

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	ICV	17:10	Nitrate Nitrite as N	5.03	5.00	101	90-110		NXN ICV INT_00517
18	ICVL	17:12	Nitrate Nitrite as N	2.12	2.00	106	90-110		NXN ICV INT_00517
19	ICB	17:14	Nitrate Nitrite as N	0.050				U	
67	CCV	18:50	Nitrate Nitrite as N	4.96	5.00	99	90-110		NXN CAL INT_00536
68	CCVL	18:52	Nitrate Nitrite as N	0.959	1.00	96	90-110		NXN CAL INT_00536
69	CCB	18:54	Nitrate Nitrite as N	0.050				U	
83	CCV	19:22	Nitrate Nitrite as N	4.80	5.00	96	90-110		NXN CAL INT_00536
84	CCVL	19:24	Nitrate Nitrite as N	1.09	1.00	109	90-110		NXN CAL INT_00536
85	CCB	19:26	Nitrate Nitrite as N	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: JAP Batch Start Date: 07/01/2020

Reporting Units: mg/L Analytical Batch No.: 500779

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:00	Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00021
9	ICB	12:17	Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: JAP Batch Start Date: 07/02/2020

Reporting Units: mg/L Analytical Batch No.: 500939

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:13	Sulfate	95.4	100	95	90-110		IC LCS_01747
2	CCB	13:30	Sulfate	2.5				U	
17	CCV	18:08	Sulfate	95.3	100	95	90-110		IC LCS_01747
18	CCB	18:26	Sulfate	2.5				U	
29	CCV	21:39	Sulfate	96.2	100	96	90-110		IC LCS_01747
30	CCB	21:56	Sulfate	2.5				U	
38	CCV	00:16	Sulfate	96.4	100	96	90-110		IC LCS_01747
39	CCB	00:34	Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: JMB Batch Start Date: 07/02/2020

Reporting Units: mg/L Analytical Batch No.: 501126

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:28	Dissolved Organic Carbon - Quad	20.6	20.0	103	90-110		TOC ICV Std_00043
2	ICB	17:50	Dissolved Organic Carbon - Quad	0.590				J	
28	CCV	03:58	Dissolved Organic Carbon - Quad	26.7	25.0	107	90-110		TOC LCS Std_00048
29	CCB	04:21	Dissolved Organic Carbon - Quad	1.0				U	
40	CCV	08:35	Dissolved Organic Carbon - Quad	27.5	25.0	110	90-110		TOC LCS Std_00048
41	CCB	08:57	Dissolved Organic Carbon - Quad	1.22					
52	CCV	13:05	Dissolved Organic Carbon - Quad	27.4	25.0	109	90-110		TOC LCS Std_00048
53	CCB	13:28	Dissolved Organic Carbon - Quad	1.0				U	
62	CCV	16:51	Dissolved Organic Carbon - Quad	27.1	25.0	108	90-110		TOC LCS Std_00048
63	CCB	17:13	Dissolved Organic Carbon - Quad	0.424				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Analyst: RAF Batch Start Date: 06/22/2020

Reporting Units: mg/L Analytical Batch No.: 499747

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	15:03	Total Alkalinity as CaCO3	191	200	95	90-110		Alk daily lcs 00908
17	CCB	15:08	Total Alkalinity as CaCO3	10				U	
28	CCV	16:18	Total Alkalinity as CaCO3	189	200	95	90-110		Alk daily lcs 00908
29	CCB	16:24	Total Alkalinity as CaCO3	10				U	
42	CCV	17:47	Total Alkalinity as CaCO3	186	200	93	90-110		Alk daily lcs 00908
43	CCB	17:52	Total Alkalinity as CaCO3	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 499930	Date: 06/23/2020 13:09						
350.1	MB 280-499930/57	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 500581	Date: 06/29/2020 20:22	Prep Batch: 500426	Date: 06/28/2020 15:33				
351.2	MB 280-500426/28-A	Nitrogen, Total Kjeldahl	1.0	U	mg/L	1.0	1
Batch ID: 500436	Date: 06/28/2020 18:36						
353.2	MB 280-500436/60	Nitrate Nitrite as N	0.050	U	mg/L	0.10	1
Batch ID: 499653	Date: 06/22/2020 12:04	Prep Batch: 499634	Date: 06/22/2020 10:42				
9034	MB 280-499634/2-A	Sulfide	0.800	J	mg/L	4.0	1
Batch ID: 500939	Date: 07/02/2020 14:40						
9056A	MB 280-500939/6	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 501126	Date: 07/03/2020 05:51						
9060A	MB 280-500659/27-A	Dissolved Organic Carbon - Quad	1.0	U	mg/L	1.0	1
Batch ID: 499747	Date: 06/22/2020 13:53						
SM 2320B	MB 280-499747/5	Total Alkalinity as CaCO3	10	U	mg/L	10	1
Batch ID: 499747	Date: 06/22/2020 16:35						
SM 2320B	MB 280-499747/31	Total Alkalinity as CaCO3	10	U	mg/L	10	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 499930	Date: 06/23/2020 13:07										
						LCS Source: 350.1 cal_00421					
350.1	LCS 280-499930/56	Ammonia	2.72		mg/L	2.50	109	90-110			
Batch ID: 500581	Date: 06/29/2020 20:21	Prep Batch: 500426	Date: 06/28/2020 15:33								
						LCS Source: TKN 25ppm_00809					
351.2	LCS 280-500426/27-A	Nitrogen, Total Kjeldahl	6.56		mg/L	6.00	109	90-110			
Batch ID: 500436	Date: 06/28/2020 18:34										
						LCS Source: NXN CAL INT_00536					
353.2	LCS 280-500436/59	Nitrate Nitrite as N	4.89		mg/L	5.00	98	90-110			
Batch ID: 499653	Date: 06/22/2020 12:04	Prep Batch: 499634	Date: 06/22/2020 10:42								
						LCS Source: SFD CAL INT_01771					
9034	LCS 280-499634/1-A	Sulfide	20.0		mg/L	22.9	87	44-110			
Batch ID: 500939	Date: 07/02/2020 14:05										
						LCS Source: IC LCS_01747					
9056A	LCS 280-500939/4	Sulfate	95.6		mg/L	100	96	87-112	0	10	
Batch ID: 501126	Date: 07/03/2020 05:06										
						LCS Source: TOC LCS Std_00048					
9060A	LCS 280-500659/25-A	Dissolved Organic Carbon - Quad	27.0		mg/L	25.0	108	88-112	1	15	
Batch ID: 499747	Date: 06/22/2020 13:48										
						LCS Source: Alk daily lcs_00908					
SM 2320B	LCS 280-499747/4	Total Alkalinity as CaCO3	182		mg/L	200	91	89-109			
Batch ID: 499747	Date: 06/22/2020 16:30										
						LCS Source: Alk daily lcs_00908					
SM 2320B	LCS 280-499747/30	Total Alkalinity as CaCO3	181		mg/L	200	91	89-109			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 500939	Date: 07/02/2020 14:23										
						LCSD Source: IC LCS_01747					
9056A	LCSD 280-500939/5	Sulfate	95.4		mg/L	100	95	87-112	0	10	
Batch ID: 501126	Date: 07/03/2020 05:29										
						LCSD Source: TOC LCS Std_00048					
9060A	LCSD 280-500659/26-A	Dissolved Organic Carbon - Quad	27.2		mg/L	25.0	109	88-112	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 500939	Date: 07/02/2020 13:48										
						LCS Source: IC CAL cl/so4_00317					
9056A	MRL 280-500939/3	Sulfate	4.32	J	mg/L	5.00	86	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 DL Date: 12/16/2011 09:50

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate Nitrite as N		0.1	0.019

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 XMDL Date: 05/16/2011 11:21

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.0191

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 DL Date: 03/28/2011 13:37

Prep Method: 9030B

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfide		4	0.793

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide		4	0.793

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI2

Method: 9060A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI2

Method: 9060A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Alkalinity as CaCO3		10	3.08

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137848-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Alkalinity as CaCO3		10	3.08

FORM IX - IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-500426/27-A	06/28/2020 15:33	500426		25	25
MB 280-500426/28-A	06/28/2020 15:33	500426		25	25
280-137848-1	06/28/2020 15:33	500426		25	25
280-137848-2	06/28/2020 15:33	500426		25	25

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-499634/1-A	06/22/2020 10:42	499634		50	50
MB 280-499634/2-A	06/22/2020 10:42	499634		50	50
280-137848-1	06/22/2020 10:42	499634		50	50
280-137848-2	06/22/2020 10:42	499634		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 06/23/2020 11:17 End Date: 06/23/2020 15:01

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			11:17																								
ZZZZZZ			11:19																								
ZZZZZZ			11:21																								
IC 280-499930/4			11:23	X																							
IC 280-499930/5			11:25	X																							
IC 280-499930/6			11:27	X																							
IC 280-499930/7			11:29	X																							
IC 280-499930/8			11:31	X																							
IC 280-499930/9			11:33	X																							
IC 280-499930/10			11:35	X																							
IC 280-499930/11			11:37	X																							
ZZZZZZ			11:39																								
ZZZZZZ			11:41																								
ICVL 280-499930/14	1		11:43	X																							
ICV 280-499930/15	1		11:45	X																							
ICB 280-499930/16	1		11:47	X																							
ZZZZZZ			11:49																								
ZZZZZZ			11:51																								
ZZZZZZ			11:53																								
ZZZZZZ			11:55																								
ZZZZZZ			11:57																								
ZZZZZZ			11:59																								
ZZZZZZ			12:01																								
ZZZZZZ			12:03																								
ZZZZZZ			12:05																								
ZZZZZZ			12:07																								
ZZZZZZ			12:09																								
ZZZZZZ			12:11																								
ZZZZZZ			12:13																								
RINSE 280-499930/30			12:15																								
ZZZZZZ			12:17																								
CCVL 280-499930/32			12:19																								
CCV 280-499930/33			12:21																								
CCB 280-499930/34			12:23																								
ZZZZZZ			12:25																								
ZZZZZZ			12:27																								
ZZZZZZ			12:29																								
ZZZZZZ			12:31																								
ZZZZZZ			12:33																								
ZZZZZZ			12:35																								
ZZZZZZ			12:37																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 06/23/2020 11:17 End Date: 06/23/2020 15:01

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			12:39																								
ZZZZZZ			12:41																								
ZZZZZZ			12:43																								
ZZZZZZ			12:45																								
RINSE 280-499930/46			12:47																								
ZZZZZZ			12:49																								
CCVL 280-499930/48			12:51																								
CCV 280-499930/49	1		12:53	X																							
CCB 280-499930/50	1		12:55	X																							
ZZZZZZ			12:57																								
ZZZZZZ			12:59																								
ZZZZZZ			13:01																								
ZZZZZZ			13:03																								
ZZZZZZ			13:05																								
LCS 280-499930/56	1	T	13:07	X																							
MB 280-499930/57	1	T	13:09	X																							
ZZZZZZ			13:11																								
ZZZZZZ			13:13																								
ZZZZZZ			13:15																								
ZZZZZZ			13:17																								
RINSE 280-499930/62			13:19																								
ZZZZZZ			13:21																								
CCVL 280-499930/64	1		13:23	X																							
CCV 280-499930/65	1		13:25	X																							
CCB 280-499930/66	1		13:27	X																							
ZZZZZZ			13:29																								
ZZZZZZ			13:31																								
ZZZZZZ			13:33																								
ZZZZZZ			13:35																								
ZZZZZZ			13:37																								
ZZZZZZ			13:39																								
ZZZZZZ			13:41																								
ZZZZZZ			13:43																								
ZZZZZZ			13:45																								
ZZZZZZ			13:47																								
ZZZZZZ			13:49																								
RINSE 280-499930/78			13:51																								
ZZZZZZ			13:53																								
CCVL 280-499930/80	1		13:55	X																							
CCV 280-499930/81	1		13:57	X																							
CCB 280-499930/82	1		13:59	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 06/23/2020 11:17 End Date: 06/23/2020 15:01

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			14:01																								
ZZZZZZ			14:03																								
280-137848-1	1	T	14:05	X																							
280-137848-2	1	T	14:07	X																							
ZZZZZZ			14:09																								
ZZZZZZ			14:11																								
ZZZZZZ			14:13																								
ZZZZZZ			14:15																								
ZZZZZZ			14:17																								
ZZZZZZ			14:27																								
ZZZZZZ			14:29																								
RINSE 280-499930/94			14:31																								
ZZZZZZ			14:33																								
CCVL 280-499930/96	1		14:35	X																							
CCV 280-499930/97	1		14:37	X																							
CCB 280-499930/98	1		14:39	X																							
ZZZZZZ			14:41																								
ZZZZZZ			14:47																								
ZZZZZZ			14:49																								
RINSE 280-499930/102			14:51																								
ZZZZZZ			14:53																								
CCVL 280-499930/104			14:55																								
CCV 280-499930/105			14:57																								
CCB 280-499930/106			14:59																								
ZZZZZZ			15:01																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/29/2020 18:56 End Date: 06/29/2020 21:19

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			18:56																								
ZZZZZZ			18:57																								
ZZZZZZ			18:58																								
ZZZZZZ			18:59																								
IC 280-498263/27-A			19:01	X																							
IC 280-498263/28-A			19:02	X																							
IC 280-498263/29-A			19:03	X																							
IC 280-498263/30-A			19:04	X																							
IC 280-498263/31-A			19:06	X																							
IC 280-498263/32-A			19:07	X																							
ZZZZZZ			19:08																								
ZZZZZZ			19:09																								
ICV 280-498263/33-A	1		19:11	X																							
ICB 280-498263/34-A	1		19:12	X																							
ZZZZZZ			19:13																								
ZZZZZZ			19:14																								
ZZZZZZ			19:16																								
ZZZZZZ			19:17																								
ZZZZZZ			19:18																								
ZZZZZZ			19:19																								
ZZZZZZ			19:21																								
ZZZZZZ			19:22																								
ZZZZZZ			19:23																								
ZZZZZZ			19:24																								
ZZZZZZ			19:26																								
ZZZZZZ			19:27																								
ZZZZZZ			19:28																								
ZZZZZZ			19:29																								
ZZZZZZ			19:31																								
ZZZZZZ			19:32																								
CCV 280-498263/35-A			19:33																								
CCB 280-498263/36-A			19:34																								
ZZZZZZ			19:36																								
ZZZZZZ			19:37																								
ZZZZZZ			19:38																								
ZZZZZZ			19:39																								
ZZZZZZ			19:41																								
ZZZZZZ			19:42																								
ZZZZZZ			19:43																								
ZZZZZZ			19:44																								
ZZZZZZ			19:46																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/29/2020 18:56 End Date: 06/29/2020 21:19

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			19:47																								
ZZZZZZ			19:48																								
ZZZZZZ			19:49																								
ZZZZZZ			19:51																								
ZZZZZZ			19:52																								
ZZZZZZ			19:53																								
ZZZZZZ			19:54																								
CCV 280-498263/35-A			19:56																								
CCB 280-498263/36-A			19:57																								
ZZZZZZ			19:58																								
ZZZZZZ			19:59																								
ZZZZZZ			20:01																								
ZZZZZZ			20:02																								
ZZZZZZ			20:03																								
ZZZZZZ			20:04																								
ZZZZZZ			20:06																								
ZZZZZZ			20:07																								
ZZZZZZ			20:08																								
ZZZZZZ			20:09																								
ZZZZZZ			20:11																								
ZZZZZZ			20:12																								
ZZZZZZ			20:13																								
ZZZZZZ			20:14																								
CCV 280-498263/35-A	1		20:16	X																							
CCB 280-498263/36-A	1		20:17	X																							
ZZZZZZ			20:18																								
ZZZZZZ			20:19																								
LCS 280-500426/27-A	1	T	20:21	X																							
MB 280-500426/28-A	1	T	20:22	X																							
ZZZZZZ			20:23																								
ZZZZZZ			20:24																								
ZZZZZZ			20:26																								
ZZZZZZ			20:27																								
ZZZZZZ			20:28																								
ZZZZZZ			20:29																								
ZZZZZZ			20:31																								
ZZZZZZ			20:32																								
ZZZZZZ			20:33																								
ZZZZZZ			20:34																								
ZZZZZZ			20:36																								
CCV 280-498263/35-A	1		20:37	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/29/2020 18:56 End Date: 06/29/2020 21:19

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			20:38																								
ZZZZZZ			20:39																								
CCB 280-498263/36-A	1		20:41	X																							
ZZZZZZ			20:42																								
ZZZZZZ			20:43																								
ZZZZZZ			20:44																								
280-137848-1	1	T	20:46	X																							
280-137848-2	1	T	20:47	X																							
ZZZZZZ			20:48																								
ZZZZZZ			20:49																								
ZZZZZZ			20:51																								
ZZZZZZ			20:52																								
ZZZZZZ			20:53																								
ZZZZZZ			20:54																								
ZZZZZZ			20:56																								
ZZZZZZ			20:57																								
CCV 280-498263/35-A	1		20:58	X																							
CCB 280-498263/36-A	1		20:59	X																							
ZZZZZZ			21:01																								
ZZZZZZ			21:02																								
ZZZZZZ			21:03																								
ZZZZZZ			21:04																								
ZZZZZZ			21:06																								
ZZZZZZ			21:07																								
ZZZZZZ			21:08																								
ZZZZZZ			21:09																								
ZZZZZZ			21:11																								
ZZZZZZ			21:12																								
ZZZZZZ			21:13																								
ZZZZZZ			21:14																								
CCV 280-498263/35-A			21:16																								
CCB 280-498263/36-A			21:17																								
ZZZZZZ			21:18																								
ZZZZZZ			21:19																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/28/2020 16:38 End Date: 06/28/2020 19:28

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			16:38																								
ZZZZZZ			16:40																								
ZZZZZZ			16:42																								
ZZZZZZ			16:44																								
IC 280-500436/5			16:46	X																							
IC 280-500436/6			16:48	X																							
IC 280-500436/7			16:50	X																							
IC 280-500436/8			16:52	X																							
IC 280-500436/9			16:54	X																							
IC 280-500436/10			16:56	X																							
IC 280-500436/11			16:58	X																							
IC 280-500436/12			17:00	X																							
IC 280-500436/13			17:02	X																							
ZZZZZZ			17:04																								
ZZZZZZ			17:06																								
ZZZZZZ			17:08																								
ICV 280-500436/17	1		17:10	X																							
ICVL 280-500436/18	1		17:12	X																							
ICB 280-500436/19	1		17:14	X																							
ZZZZZZ			17:16																								
ZZZZZZ			17:18																								
ZZZZZZ			17:20																								
ZZZZZZ			17:22																								
ZZZZZZ			17:24																								
ZZZZZZ			17:26																								
ZZZZZZ			17:28																								
ZZZZZZ			17:30																								
ZZZZZZ			17:32																								
ZZZZZZ			17:34																								
ZZZZZZ			17:36																								
ZZZZZZ			17:38																								
ZZZZZZ			17:40																								
RINSE 280-500436/33			17:42																								
ZZZZZZ			17:44																								
CCV 280-500436/35			17:46																								
CCVL 280-500436/36			17:48																								
CCB 280-500436/37			17:50																								
ZZZZZZ			17:52																								
ZZZZZZ			17:54																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/28/2020 16:38 End Date: 06/28/2020 19:28

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			17:56																								
ZZZZZZ			17:58																								
ZZZZZZ			18:00																								
ZZZZZZ			18:02																								
ZZZZZZ			18:04																								
ZZZZZZ			18:06																								
ZZZZZZ			18:08																								
ZZZZZZ			18:10																								
ZZZZZZ			18:12																								
RINSE 280-500436/49			18:14																								
ZZZZZZ			18:16																								
CCV 280-500436/51			18:18																								
CCVL 280-500436/52			18:20																								
CCB 280-500436/53			18:22																								
ZZZZZZ			18:24																								
ZZZZZZ			18:26																								
ZZZZZZ			18:28																								
ZZZZZZ			18:30																								
ZZZZZZ			18:32																								
LCS 280-500436/59	1	T	18:34	X																							
MB 280-500436/60	1	T	18:36	X																							
ZZZZZZ			18:38																								
ZZZZZZ			18:40																								
ZZZZZZ			18:42																								
ZZZZZZ			18:44																								
RINSE 280-500436/65			18:46																								
ZZZZZZ			18:48																								
CCV 280-500436/67	1		18:50	X																							
CCVL 280-500436/68	1		18:52	X																							
CCB 280-500436/69	1		18:54	X																							
ZZZZZZ			18:56																								
ZZZZZZ			18:58																								
280-137848-1	5	T	19:00	X																							
280-137848-2	1	T	19:02	X																							
ZZZZZZ			19:04																								
ZZZZZZ			19:06																								
ZZZZZZ			19:08																								
ZZZZZZ			19:10																								
ZZZZZZ			19:12																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/28/2020 16:38 End Date: 06/28/2020 19:28

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			19:14																								
ZZZZZZ			19:16																								
RINSE 280-500436/81			19:18																								
ZZZZZZ			19:20																								
CCV 280-500436/83	1		19:22	X																							
CCVL 280-500436/84	1		19:24	X																							
CCB 280-500436/85	1		19:26	X																							
ZZZZZZ			19:28																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 06/22/2020 12:04 End Date: 06/22/2020 12:04

Lab Sample Id	D/F	Type	Time	Analytes																							
				S2																							
LCS 280-499634/1-A	1	T	12:04	X																							
MB 280-499634/2-A	1	T	12:04	X																							
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
280-137848-1	1	T	12:04	X																							
280-137848-2	1	T	12:04	X																							
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								
ZZZZZZ			12:04																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 07/01/2020 10:15 End Date: 07/02/2020 10:54

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
STD1 280-500779/2 IC	1		10:15	X																							
STD2 280-500779/3 IC	1		10:32	X																							
STD3 280-500779/4 IC	1		10:50	X																							
STD4 280-500779/5 IC	1		11:07	X																							
STD5 280-500779/6 IC	1		11:25	X																							
STD6 280-500779/7 IC	1		11:42	X																							
ICV 280-500779/8	1		12:00	X																							
ICB 280-500779/9	1		12:17	X																							
ZZZZZZ			12:35																								
ZZZZZZ			12:52																								
ZZZZZZ			13:09																								
ZZZZZZ			13:27																								
ZZZZZZ			15:23																								
ZZZZZZ			15:40																								
ZZZZZZ			15:58																								
ZZZZZZ			16:15																								
ZZZZZZ			16:33																								
ZZZZZZ			16:50																								
ZZZZZZ			17:08																								
ZZZZZZ			17:25																								
ZZZZZZ			17:43																								
ZZZZZZ			18:00																								
CCV 280-500779/24			18:18																								
CCB 280-500779/25			18:35																								
ZZZZZZ			18:53																								
ZZZZZZ			19:11																								
ZZZZZZ			19:28																								
ZZZZZZ			19:46																								
ZZZZZZ			20:03																								
ZZZZZZ			20:21																								
ZZZZZZ			20:38																								
ZZZZZZ			20:56																								
ZZZZZZ			21:13																								
ZZZZZZ			21:31																								
CCV 280-500779/36			21:48																								
CCB 280-500779/37			22:06																								
ZZZZZZ			22:23																								
ZZZZZZ			22:41																								
ZZZZZZ			22:58																								
ZZZZZZ			23:16																								
ZZZZZZ			23:33																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 07/01/2020 10:15 End Date: 07/02/2020 10:54

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			23:50																								
ZZZZZZ			00:08																								
ZZZZZZ			00:25																								
ZZZZZZ			00:43																								
ZZZZZZ			01:00																								
CCV 280-500779/48			01:18																								
CCB 280-500779/49			01:35																								
ZZZZZZ			01:52																								
ZZZZZZ			02:10																								
ZZZZZZ			02:27																								
ZZZZZZ			02:45																								
ZZZZZZ			03:02																								
ZZZZZZ			03:20																								
ZZZZZZ			03:37																								
ZZZZZZ			03:55																								
ZZZZZZ			04:12																								
CCV 280-500779/59			04:29																								
CCB 280-500779/60			04:47																								
ZZZZZZ			05:22																								
ZZZZZZ			05:39																								
ZZZZZZ			05:57																								
ZZZZZZ			06:14																								
ZZZZZZ			06:32																								
ZZZZZZ			06:50																								
ZZZZZZ			07:07																								
ZZZZZZ			07:25																								
ZZZZZZ			07:42																								
CCV 280-500779/71			08:00																								
CCB 280-500779/72			08:17																								
ZZZZZZ			08:52																								
ZZZZZZ			09:10																								
ZZZZZZ			09:27																								
ZZZZZZ			09:45																								
ZZZZZZ			10:02																								
ZZZZZZ			10:20																								
CCV 280-500779/80			10:37																								
CCB 280-500779/81			10:54																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 07/02/2020 13:13 End Date: 07/03/2020 06:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
CCV 280-500939/1	1		13:13	X																							
CCB 280-500939/2	1		13:30	X																							
MRL 280-500939/3	1	T	13:48	X																							
LCS 280-500939/4	1	T	14:05	X																							
LCSD 280-500939/5	1	T	14:23	X																							
MB 280-500939/6	1	T	14:40	X																							
ZZZZZZ			15:14																								
ZZZZZZ			15:31																								
ZZZZZZ			15:49																								
ZZZZZZ			16:06																								
ZZZZZZ			16:24																								
ZZZZZZ			16:41																								
ZZZZZZ			16:58																								
ZZZZZZ			17:16																								
ZZZZZZ			17:33																								
ZZZZZZ			17:51																								
CCV 280-500939/17	1		18:08	X																							
CCB 280-500939/18	1		18:26	X																							
ZZZZZZ			18:43																								
ZZZZZZ			19:01																								
ZZZZZZ			19:18																								
ZZZZZZ			19:36																								
ZZZZZZ			19:53																								
ZZZZZZ			20:11																								
ZZZZZZ			20:29																								
ZZZZZZ			20:46																								
ZZZZZZ			21:04																								
ZZZZZZ			21:21																								
CCV 280-500939/29	1		21:39	X																							
CCB 280-500939/30	1		21:56	X																							
280-137848-1	1	T	22:14	X																							
ZZZZZZ			22:31																								
ZZZZZZ			22:49																								
280-137848-2	1	T	23:06	X																							
ZZZZZZ			23:24																								
ZZZZZZ			23:41																								
ZZZZZZ			23:59																								
CCV 280-500939/38	1		00:16	X																							
CCB 280-500939/39	1		00:34	X																							
ZZZZZZ			00:51																								
ZZZZZZ			01:09																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 07/02/2020 13:13 End Date: 07/03/2020 06:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			01:26																								
ZZZZZZ			01:44																								
ZZZZZZ			02:01																								
ZZZZZZ			02:18																								
ZZZZZZ			02:36																								
ZZZZZZ			02:53																								
ZZZZZZ			03:11																								
ZZZZZZ			03:28																								
CCV 280-500939/50			03:45																								
CCB 280-500939/51			04:03																								
ZZZZZZ			04:20																								
ZZZZZZ			04:38																								
ZZZZZZ			04:55																								
ZZZZZZ			05:15																								
ZZZZZZ			05:33																								
ZZZZZZ			05:50																								
ZZZZZZ			06:08																								
CCV 280-500939/59			06:25																								
CCB 280-500939/60			06:43																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_SHI2 Analysis Method: 9060A

Start Date: 07/02/2020 17:28 End Date: 07/03/2020 17:13

Lab Sample Id	D/F	Type	Time	Analytes																							
				DOCQ																							
ICV 280-501126/1	1		17:28	X																							
ICB 280-501126/2	1		17:50	X																							
ZZZZZZ			18:13																								
ZZZZZZ			18:35																								
ZZZZZZ			18:57																								
ZZZZZZ			19:25																								
ZZZZZZ			19:52																								
ZZZZZZ			20:14																								
ZZZZZZ			20:37																								
ZZZZZZ			21:00																								
ZZZZZZ			21:22																								
ZZZZZZ			21:52																								
ZZZZZZ			22:14																								
ZZZZZZ			22:37																								
ZZZZZZ			22:59																								
CCV 280-501126/16			23:22																								
CCB 280-501126/17			23:45																								
ZZZZZZ			00:07																								
ZZZZZZ			00:29																								
ZZZZZZ			00:52																								
ZZZZZZ			01:14																								
ZZZZZZ			01:37																								
ZZZZZZ			02:00																								
ZZZZZZ			02:23																								
ZZZZZZ			02:50																								
ZZZZZZ			03:12																								
ZZZZZZ			03:35																								
CCV 280-501126/28	1		03:58	X																							
CCB 280-501126/29	1		04:21	X																							
ZZZZZZ			04:43																								
LCS 280-500659/25-A	1	D	05:06	X																							
LCSD 280-500659/26-A	1	D	05:29	X																							
MB 280-500659/27-A	1	D	05:51	X																							
ZZZZZZ			06:14																								
ZZZZZZ			06:36																								
ZZZZZZ			07:00																								
ZZZZZZ			07:23																								
ZZZZZZ			07:45																								
ZZZZZZ			08:12																								
CCV 280-501126/40	1		08:35	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_SHI2 Analysis Method: 9060A

Start Date: 07/02/2020 17:28 End Date: 07/03/2020 17:13

Lab Sample Id	D/F	Type	Time	Analytes																							
				DOCQ																							
CCB 280-501126/41	1		08:57	X																							
ZZZZZZ			09:20																								
ZZZZZZ			09:42																								
ZZZZZZ			10:05																								
ZZZZZZ			10:27																								
ZZZZZZ			10:49																								
ZZZZZZ			11:12																								
ZZZZZZ			11:34																								
ZZZZZZ			11:57																								
ZZZZZZ			12:20																								
ZZZZZZ			12:43																								
CCV 280-501126/52	1		13:05	X																							
CCB 280-501126/53	1		13:28	X																							
ZZZZZZ			13:51																								
ZZZZZZ			14:13																								
ZZZZZZ			14:36																								
280-137848-1	1	D	14:58	X																							
280-137848-2	1	D	15:21	X																							
ZZZZZZ			15:43																								
ZZZZZZ			16:05																								
ZZZZZZ			16:28																								
CCV 280-501126/62	1		16:51	X																							
CCB 280-501126/63	1		17:13	X																							

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/22/2020 13:32 End Date: 06/22/2020 20:58

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
RINSE 280-499747/1			13:32																								
ZZZZZZ			13:38																								
ZZZZZZ			13:41																								
LCS 280-499747/4	1	T	13:48	X																							
MB 280-499747/5	1	T	13:53	X																							
ZZZZZZ			13:59																								
ZZZZZZ			14:05																								
ZZZZZZ			14:11																								
ZZZZZZ			14:18																								
ZZZZZZ			14:24																								
ZZZZZZ			14:30																								
ZZZZZZ			14:36																								
ZZZZZZ			14:43																								
ZZZZZZ			14:49																								
ZZZZZZ			14:56																								
CCV 280-499747/16	1		15:03	X																							
CCB 280-499747/17	1		15:08	X																							
ZZZZZZ			15:14																								
ZZZZZZ			15:21																								
ZZZZZZ			15:28																								
ZZZZZZ			15:35																								
ZZZZZZ			15:42																								
ZZZZZZ			15:49																								
ZZZZZZ			15:54																								
ZZZZZZ			16:00																								
ZZZZZZ			16:06																								
ZZZZZZ			16:12																								
CCV 280-499747/28	1		16:18	X																							
CCB 280-499747/29	1		16:24	X																							
LCS 280-499747/30	1	T	16:30	X																							
MB 280-499747/31	1	T	16:35	X																							
ZZZZZZ			16:42																								
ZZZZZZ			16:48																								
ZZZZZZ			16:54																								
ZZZZZZ			16:59																								
ZZZZZZ			17:05																								
280-137848-1	1	T	17:10	X																							
280-137848-2	1	T	17:16	X																							
ZZZZZZ			17:25																								
ZZZZZZ			17:34																								
ZZZZZZ			17:41																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/22/2020 13:32 End Date: 06/22/2020 20:58

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
CCV 280-499747/42	1		17:47	X																							
CCB 280-499747/43	1		17:52	X																							
ZZZZZZ			17:58																								
ZZZZZZ			18:03																								
ZZZZZZ			18:09																								
ZZZZZZ			18:16																								
ZZZZZZ			18:22																								
ZZZZZZ			18:28																								
ZZZZZZ			18:34																								
ZZZZZZ			18:41																								
ZZZZZZ			18:48																								
ZZZZZZ			18:54																								
ZZZZZZ			19:01																								
ZZZZZZ			19:07																								
ZZZZZZ			19:14																								
ZZZZZZ			19:19																								
ZZZZZZ			19:25																								
ZZZZZZ			19:31																								
ZZZZZZ			19:37																								
ZZZZZZ			19:43																								
ZZZZZZ			19:49																								
ZZZZZZ			19:55																								
ZZZZZZ			20:00																								
ZZZZZZ			20:06																								
ZZZZZZ			20:11																								
ZZZZZZ			20:17																								
CCV 280-499747/68			20:24																								
CCB 280-499747/69			20:29																								
ZZZZZZ			20:35																								
ZZZZZZ			20:41																								
ZZZZZZ			20:46																								
CCV 280-499747/73			20:53																								
CCB 280-499747/74			20:58																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499930 Batch Start Date: 06/23/20 11:17 Batch Analyst: Hunter, Brandon W

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00421	350.1 ICV 00409
ICVL 280-499930/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-499930/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-499930/16		350.1			10 mL	10 mL			
CCV 280-499930/49		350.1			100 mL	100 mL		2.5 mL	
CCB 280-499930/50		350.1			10 mL	10 mL			
LCS 280-499930/56		350.1			100 mL	100 mL		2.5 mL	
MB 280-499930/57		350.1			10 mL	10 mL			
CCVL 280-499930/64		350.1			100 mL	100 mL		0.5 mL	
CCV 280-499930/65		350.1			100 mL	100 mL		2.5 mL	
CCB 280-499930/66		350.1			10 mL	10 mL			
CCVL 280-499930/80		350.1			100 mL	100 mL		0.5 mL	
CCV 280-499930/81		350.1			100 mL	100 mL		2.5 mL	
CCB 280-499930/82		350.1			10 mL	10 mL			
280-137848-C-1	PZ018-20A	350.1	T	No	10 mL	10 mL	<2 SU		
280-137848-C-2	G0090-20A	350.1	T	No	10 mL	10 mL	<2 SU		
CCVL 280-499930/96		350.1			100 mL	100 mL		0.5 mL	
CCV 280-499930/97		350.1			100 mL	100 mL		2.5 mL	
CCB 280-499930/98		350.1			10 mL	10 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499930 Batch Start Date: 06/23/20 11:17 Batch Analyst: Hunter, Brandon W

Batch Method: 350.1 Batch End Date:

Batch Notes	
Batch Comment	BWH
Carrier Identification	350.1 complex_00484
Hypochlorite ID	350.1 bleach_01261
Sodium Nitroprusside ID	350.1 color_00204
Pipette/Syringe/Dispenser ID	BWH100, BWH1000, BWH5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 498263 Batch Start Date: 06/10/20 18:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00809	TKN ICV 25 00094		
ICV 280-498263/33		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-498263/34		351.2, 351.2		25 mL	25 mL				
CCV 280-498263/35		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-498263/36		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/10/20 2340
Block Digestion Start time	06/10/20 1840
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00135
Oven, Bath or Block Temperature 1	165 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500426 Batch Start Date: 06/28/20 15:33 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00809		
LCS 280-500426/27		351.2, 351.2			25 mL	25 mL	6 mL		
MB 280-500426/28		351.2, 351.2			25 mL	25 mL			
280-137848-C-1	PZ018-20A	351.2, 351.2	T	<2	25 mL	25 mL			
280-137848-C-2	G0090-20A	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/28/20 2300
Block Digestion Start time	06/28/20 1630
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00136
Oven, Bath or Block Temperature 1	165 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500581 Batch Start Date: 06/29/20 18:56 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-498263/33-A		351.2		4 mL					
ICB 280-498263/34-A		351.2		4 mL					
CCV 280-498263/35-A		351.2		4 mL					
CCB 280-498263/36-A		351.2		4 mL					
LCS 280-500426/27-A		351.2		4 mL					
MB 280-500426/28-A		351.2		4 mL					
CCV 280-498263/35-A		351.2		4 mL					
CCB 280-498263/36-A		351.2		4 mL					
280-137848-C-1-A	PZ018-20A	351.2	T	4 mL					
280-137848-C-2-A	G0090-20A	351.2	T	4 mL					
CCV 280-498263/35-A		351.2		4 mL					
CCB 280-498263/36-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN buffer_00125
Hypochlorite ID	TKN hypo_00669
Sodium Nitroprusside ID	sodium nitro_00100
Pipette/Syringe/Dispenser ID	5000ad, 1000ad

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500436 Batch Start Date: 06/28/20 16:38 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	NXN CAL INT 00536	NXN ICV INT 00517		
ICV 280-500436/17		353.2		100 mL	100 mL		5 mL		
ICVL 280-500436/18		353.2		100 mL	100 mL		2 mL		
ICB 280-500436/19		353.2		100 mL	100 mL				
LCS 280-500436/59		353.2		100 mL	100 mL	5 mL			
MB 280-500436/60		353.2		100 mL	100 mL				
CCV 280-500436/67		353.2		100 mL	100 mL	5 mL			
CCVL 280-500436/68		353.2		100 mL	100 mL	1 mL			
CCB 280-500436/69		353.2		100 mL	100 mL				
280-137848-C-1	PZ018-20A	353.2	T	100 mL	100 mL				
280-137848-C-2	G0090-20A	353.2	T	100 mL	100 mL				
CCV 280-500436/83		353.2		100 mL	100 mL	5 mL			
CCVL 280-500436/84		353.2		100 mL	100 mL	1 mL			
CCB 280-500436/85		353.2		100 mL	100 mL				

Batch Notes	
Buffer Reagent ID	NOXT Buffer_00210
Color Reagent ID	NOXT CR_00108
Copper Sulfate ID	CuSO4 NOXT_0008
Hydrochloric Acid ID	0.5N HCl_0076
pH Indicator ID	hc989495
Pipette/Syringe/Dispenser ID	5000ad, 1000ad

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499634 Batch Start Date: 06/22/20 10:42 Batch Analyst: Hohulin, Sierra A

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-499634/1		9030B, 9034		50 mL	50 mL	1	>9 SU	<2 SU	5 mL
MB 280-499634/2		9030B, 9034		50 mL	50 mL	2	>9 SU	<2 SU	5 mL
280-137848-E-1	PZ018-20A	9030B, 9034	T	50 mL	50 mL	14	>9 SU	<2 SU	5 mL
280-137848-E-2	G0090-20A	9030B, 9034	T	50 mL	50 mL	15	>9 SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD CAL INT 01771					
LCS 280-499634/1		9030B, 9034		1 mL					
MB 280-499634/2		9030B, 9034							
280-137848-E-1	PZ018-20A	9030B, 9034	T						
280-137848-E-2	G0090-20A	9030B, 9034	T						

Batch Notes	
Batch Comment	AD trained by SAH
Distillation End Time	02/17/2020 19:09
Distillation Start Time	02/17/2020 18:03
Formaldehyde ID	Form_00117
pH Indicator ID	HC989495 & HC 606169
Pipette/Syringe/Dispenser ID	AB8A1000 & 5000IX
Sulfuric Acid Reagent ID Number	H2SO4_00203
Zinc Acetate Buffer ID	Znac_00116

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499653 Batch Start Date: 06/22/20 12:08 Batch Analyst: Hohulin, Sierra A

Batch Method: 9034 Batch End Date: 06/22/20 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-499634/1-A		9034		0 mL	2.5 mL	5 mL	2.5 mL	50 mL	
MB 280-499634/2-A		9034		2.5 mL	3.4 mL	1 mL	0.9 mL	50 mL	
280-137848-E-1-A	PZ018-20A	9034	T	17.9 mL	18.9 mL	1 mL	1 mL	50 mL	
280-137848-E-2-A	G0090-20A	9034	T	18.9 mL	19.9 mL	1 mL	1 mL	50 mL	

Batch Notes	
Batch Comment	SAH
Hydrochloric Acid ID	HCL Sol_00181
Iodine ID	Iod_00257
Normality of Iodine Solution	0.0250 N
Sodium Thiosulfate ID	Na Thio_00167
Pipette/Syringe/Dispenser ID	5000 CONDOR & 1000 INTERCESSOR
Starch Reagent ID	Starch Ind_00062
Normality of First Titrant	0.0250 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500779 Batch Start Date: 07/01/20 10:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00317	IC Cal low 00531	IC CL ICV 00018	IC ICV 5 00274
STD1 280-500779/2 IC		9056A		5 mL	5 mL	0.04 mL	0.04 mL		
STD2 280-500779/3 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD3 280-500779/4 IC		9056A		5 mL	5 mL	0.2 mL	0.2 mL		
STD4 280-500779/5 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD5 280-500779/6 IC		9056A		5 mL	5 mL	4.8 mL	1.6 mL		
STD6 280-500779/7 IC		9056A		5 mL	5 mL	8 mL	2 mL		
ICV 280-500779/8		9056A		5 mL	5 mL			0.8 mL	0.8 mL
ICB 280-500779/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00021					
STD1 280-500779/2 IC		9056A							
STD2 280-500779/3 IC		9056A							
STD3 280-500779/4 IC		9056A							
STD4 280-500779/5 IC		9056A							
STD5 280-500779/6 IC		9056A							
STD6 280-500779/7 IC		9056A							
ICV 280-500779/8		9056A		0.8 mL					
ICB 280-500779/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500779 Batch Start Date: 07/01/20 10:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	ic10 H3PO4_00003
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500939 Batch Start Date: 07/02/20 13:13 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00317	IC Cal low 00531	IC LCS 01747	
CCV 280-500939/1		9056A		5 mL	5 mL			10 mL	
CCB 280-500939/2		9056A		5 mL	5 mL				
MRL 280-500939/3		9056A		5 mL	5 mL	0.2 mL	0.1 mL		
LCS 280-500939/4		9056A		5 mL	5 mL			10 mL	
LCSD 280-500939/5		9056A		5 mL	5 mL			10 mL	
MB 280-500939/6		9056A		5 mL	5 mL				
CCV 280-500939/17		9056A		5 mL	5 mL			5 mL	
CCB 280-500939/18		9056A		5 mL	5 mL				
CCV 280-500939/29		9056A		5 mL	5 mL			5 mL	
CCB 280-500939/30		9056A		5 mL	5 mL				
280-137848-F-1	PZ018-20A	9056A	T	5 mL	5 mL				
280-137848-F-1	PZ018-20A	9056A	T	5 mL	5 mL				
280-137848-F-2	G0090-20A	9056A	T	5 mL	5 mL				
280-137848-F-2	G0090-20A	9056A	T	5 mL	5 mL				
CCV 280-500939/38		9056A		5 mL	5 mL			5 mL	
CCB 280-500939/39		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	ic10 H3PO4_00003
Sufficient Volume for Batch QC	Yes

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 500939 Batch Start Date: 07/02/20 13:13 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 501126 Batch Start Date: 07/02/20 17:28 Batch Analyst: Battillo, Jenna M

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC ICV Std 00043	TOC LCS Std 00048	
ICV 280-501126/1		9060A		50 mL	50 mL	<2 SU	1 mL		
ICB 280-501126/2		9060A		20 mL	20 mL	<2 SU			
CCV 280-501126/28		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-501126/29		9060A		20 mL	20 mL	<2 SU			
LCS 280-500659/25-A		9060A		200 mL	200 mL	<2 SU		5 mL	
LCSD 280-500659/26-A		9060A		200 mL	200 mL	<2 SU		5 mL	
MB 280-500659/27-A		9060A		20 mL	20 mL	<2 SU			
CCV 280-501126/40		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-501126/41		9060A		20 mL	20 mL	<2 SU			
CCV 280-501126/52		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-501126/53		9060A		20 mL	20 mL	<2 SU			
280-137848-D-1-A	PZ018-20A	9060A	D	20 mL	20 mL	7 SU			
280-137848-D-2-A	G0090-20A	9060A	D	20 mL	20 mL	7 SU			
CCV 280-501126/62		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-501126/63		9060A		20 mL	20 mL	<2 SU			

Batch Notes	
Acid ID	H2SO4_00208, 0.2% H2SO4_00350
Combustion Catylyst ID	19003D-03
Pipette/Syringe/Dispenser ID	BMF 5000

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499747 Batch Start Date: 06/22/20 13:32 Batch Analyst: Fox, Regan A

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00908				
LCS 280-499747/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-499747/5		SM 2320B		InitialAmount is blank					
CCV 280-499747/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-499747/17		SM 2320B		InitialAmount is blank					
CCV 280-499747/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-499747/29		SM 2320B		InitialAmount is blank					
LCS 280-499747/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-499747/31		SM 2320B		InitialAmount is blank					
280-137848-F-1	PZ018-20A	SM 2320B	T	InitialAmount is blank					
280-137848-F-2	G0090-20A	SM 2320B	T	InitialAmount is blank					
CCV 280-499747/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-499747/43		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137848-1

SDG No.:

Batch Number: 499747 Batch Start Date: 06/22/20 13:32 Batch Analyst: Fox, Regan A

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4 00273
Batch Comment	SG training RF
pH Buffer 1 ID	pH 2.0 Buffer 00085
pH Buffer 2 ID	pH 4.0 Buffer 00188
pH Buffer 3 ID	pH 7.0 Buffer 00280
pH Buffer 4 ID	pH 10 Buffer 00150
pH Buffer 5 ID	pH 12 Buffer 00163
pH Buffer 6 ID	pH 7.0 Buffer 00281
Sodium Carbonate ID	Alk Stk Std 00017
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000SM
Probe ID	PCE 80 pH 1200C 45506
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 24-Jun-20

BW14

Cup	Name	Type	R	Dil	Wt	Comment		
5	Sync	SYNC	1	1	1			
~~0~~	~~blk~~	~~CO~~	~~1~~	~~1~~	~~1~~		~~350.1 color_00804~~	
0	Read Baseline	RB	1	1	1			
1	Cal 0.0 PPB	C	1	1	1		350.1 bleach_01261	
3	Cal 25.0 ppb	C	1	1	1			
4	Cal 50.0 ppb	C	1	1	1		350.1 complex_00484	
5	Cal 100.0 ppb	C	1	1	1			
6	Cal 500.0 ppb	C	1	1	1			
7	Cal 1000.0 ppb	C	1	1	1			
8	Cal 2500.0 ppb	C	1	1	1			
9	Cal 5000.0 ppb	C	1	1	1			
0	blank	BLNK	1	1	1			
0	read baseline	RB	1	1	1			
10	ICVL 500.0 ppb	U	1	1	1			
11	ICV 2500.0 ppb	U	1	1	1			
12	ICB	U	1	1	1			
0	read baseline	RB	1	1	1			
8	LCS	U	1	1	1		pH	Cl^-
12	MB	U	1	1	1			
13	280-137739-b-1	U	1	1	1		<2	n
14	MS 280-137739-b-1	U	1	1	1		<2	n
15	MSD 280-137739-b-1	U	1	1	1		<2	n
16	280-137739-b-2	U	1	1	1		<2	n
17	280-137739-b-3	U	1	1	1		<2	n
18	280-137739-b-4	U	1	1	1		<2	n
19	280-137740-b-1	U	1	1	1		<2	n
20	280-137740-b-2	U	1	1	1		<2	n
21	280-137776-b-1	U	1	1	1		<2	n
22	280-137776-b-2	U	1	1	1		<2	n
0	RINSE	U	1	1	1		<2	n
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			
23	280-137776-b-3	U	1	1	1		<2	n
24	280-137776-c-4	U	1	1	1		<2	n
25	280-137776-b-5	U	1	1	1		<2	n
26	MS 280-137776-b-5	U	1	1	1		<2	n
27	MSD 280-137776-b-5	U	1	1	1		<2	n
28	280-137776-c-6	U	1	1	1		<2	n
29	280-137780-b-5	U	1	1	1		<2	n
30	280-137780-b-6	U	1	1	1		<2	n
31	280-137780-b-7	U	1	1	1		<2	n
32	280-137780-b-8	U	1	1	1		<2	n
0	RINSE	U	1	1	1			
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			
33	280-137780-b-9	U	1	1	1		<2	n
34	280-137780-b-10	U	1	1	1		<2	n
35	280-137780-b-11	U	1	1	1		<2	n
36	280-137780-b-12	U	1	1	1		<2	n
8	LCS	U	1	1	1			

Cup	Name	Type	R	Dil	Wt	Comment	pH	Cl-
12	MB	U	1	1	1			
37	280-137780-b-13	U	1	1	1		<2	n
38	MS 280-137780-b-13	U	1	1	1		<2	n
39	MSD 280-137780-b-13	U	1	1	1		<2	n
40	280-137780-b-14	U	1	1	1		<2	n
~~0~~	~~RINSE~~	~~U~~	~~1~~	~~1~~	~~1~~			
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1		<2	n
41	280-137781-b-1	U	1	1	1		<2	n
42	280-137797-c-1	U	1	1	1		<2	n
43	280-137797-c-2	U	1	1	1		<2	n
44	280-137800-d-1	U	1	1	1		<2	n
45	280-137800-d-2	U	1	1	1		<2	n
46	280-137815-b-1	U	1	1	1		<2	n
47	280-137815-b-2	U	1	1	1		<2	n
48	280-137815-b-3	U	1	1	1		<2	n
49	280-137823-a-4	U	1	1	1		<2	n
50	MS 280-137823-a-4	U	1	1	1		<2	n
0	RINSE	U	1	1	1			n
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1		<2	
51	MSD 280-137823-a-4	U	1	1	1		<2	n
52	280-137848-c-1	U	1	1	1		<2	n
53	280-137848-c-2	U	1	1	1		<2	n
54	280-137887-a-1	U	1	1	1		<2	n
55	280-137888-b-1	U	1	1	1		<2	n
56	280-137888-b-2	U	1	1	1		<2	n
57	280-137888-b-3	U	1	1	1		<2	n
58	280-137888-b-4	U	1	1	1		<2	n
59	280-137740-b-1	U	1	2	1		<2	n
60	280-137781-b-1	U	1	10	1		<2	n
0	RINSE	U	1	1	1			n
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			
61	580-95452-a-2	U	1	10	1			
62	580-95452-a-5	U	1	100	1		<2	n
0	RINSE	U	1	1	1		<2	n
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	BWH
Operator ID	BWH
Platform	FS 3000
Software Rev Code	222
Data system ID	57
Result path	C:\FLOW_4\062320.RST
Sample table path	C:\FLOW_4\062320.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	23-Jun-20
Time acquired	15:07

				|------------ Ammonia ----------|	
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
23-Jun-20	11:17	5	Sync	3381	85.712	
23-Jun-20	11:19	0	blk	102	-8.628	LO
23-Jun-20	11:21	0	Read Baseline	0	-11.552	BL
23-Jun-20	11:23	1	Cal 0.0 PPB	586	5.206	
23-Jun-20	11:25	3	Cal 25.0 ppb	1356	27.311	
23-Jun-20	11:27	4	Cal 50.0 ppb	2515	60.677	
23-Jun-20	11:29	5	Cal 100.0 ppb	3921	101.365	
23-Jun-20	11:31	6	Cal 500.0 ppb	17009	490.260	
23-Jun-20	11:33	7	Cal 1000.0 ppb	33251	998.642	
23-Jun-20	11:35	8	Cal 2500.0 ppb	76846	2504.142	
23-Jun-20	11:37	9	Cal 5000.0 ppb	138843	4998.958	
23-Jun-20	11:39	0	blank	-3998	-124.955	LO
23-Jun-20	11:41	0	read baseline	0	-11.552	BL
23-Jun-20	11:43	10	ICVL 500.0 ppb	18198	526.517	
23-Jun-20	11:45	11	ICV 2500.0 ppb	77338	2522.323	
23-Jun-20	11:47	12	ICB	-2445	-81.111	LO
23-Jun-20	11:49	0	read baseline	0	-11.552	BL
23-Jun-20	11:51	8	LCS	78981	2583.155	
23-Jun-20	11:53	12	MB	-2510	-82.962	LO
23-Jun-20	11:55	13	280-137739-b-1	1432	29.481	
23-Jun-20	11:57	14	MS 280-137739-b-1	34591	1041.846	
23-Jun-20	11:59	15	MSD 280-137739-b-1	34754	1047.107	
23-Jun-20	12:01	16	280-137739-b-2	3533	90.116	
23-Jun-20	12:03	17	280-137739-b-3	1526	32.207	
23-Jun-20	12:05	18	280-137739-b-4	1379	27.970	
23-Jun-20	12:07	19	280-137740-b-1	204130	8075.287	
23-Jun-20	12:09	20	280-137740-b-2	-6337	-190.502	LO
23-Jun-20	12:11	21	280-137776-b-1	-58	-13.198	LO
23-Jun-20	12:13	22	280-137776-b-2	-185	-16.842	LO
23-Jun-20	12:15	0	RINSE	-181	-16.735	LO
23-Jun-20	12:17	0	read baseline	0	-11.552	BL
23-Jun-20	12:19	6	CCVL 500.0 ppb	17047	491.403	
23-Jun-20	12:21	8	CCV 2500.0 ppb	79326	2595.952	
23-Jun-20	12:23	12	CCB	-2340	-78.129	LO
23-Jun-20	12:25	0	read baseline	0	-11.552	BL
23-Jun-20	12:27	23	280-137776-b-3	53	-10.037	LO
23-Jun-20	12:29	24	280-137776-c-4	7	-11.362	LO
23-Jun-20	12:31	25	280-137776-b-5	-65	-13.413	LO
23-Jun-20	12:33	26	MS 280-137776-b-5	33749	1014.688	
23-Jun-20	12:35	27	MSD 280-137776-b-5	34128	1026.898	
23-Jun-20	12:37	28	280-137776-c-6	-764	-33.351	LO
23-Jun-20	12:39	29	280-137780-b-5	802	11.417	
23-Jun-20	12:41	30	280-137780-b-6	-39	-12.677	LO
23-Jun-20	12:43	31	280-137780-b-7	-21	-12.158	LO
23-Jun-20	12:45	32	280-137780-b-8	2	-11.495	LO
23-Jun-20	12:47	0	RINSE	248	-4.449	LO

Result path C:\FLOW_4\062320.RST
Sample table path C:\FLOW_4\062320.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 23-Jun-20
Time acquired 15:07

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
23-Jun-20	12:49	0	read baseline	0	-11.552	BL
23-Jun-20	12:51	6	CCVL 500.0 ppb	17624	508.977	
23-Jun-20	12:53	8	CCV 2500.0 ppb	81271	2668.455	
23-Jun-20	12:55	12	CCB	-2607	-85.713	LO
23-Jun-20	12:57	0	read baseline	0	-11.552	BL
23-Jun-20	12:59	33	280-137780-b-9	-9	-11.815	LO
23-Jun-20	13:01	34	280-137780-b-10	334	-2.002	LO
23-Jun-20	13:03	35	280-137780-b-11	361	-1.218	LO
23-Jun-20	13:05	36	280-137780-b-12	-129	-15.233	LO
23-Jun-20	13:07	8	LCS	82764	2724.337	
23-Jun-20	13:09	12	MB	-2668	-87.440	LO
23-Jun-20	13:11	37	280-137780-b-13	-25	-12.266	LO
23-Jun-20	13:13	38	MS 280-137780-b-13	35299	1064.763	
23-Jun-20	13:15	39	MSD 280-137780-b-13	33998	1022.713	
23-Jun-20	13:17	40	280-137780-b-14	-1010	-40.379	LO
23-Jun-20	13:19	0	RINSE	-101	-14.436	LO
23-Jun-20	13:21	0	read baseline	0	-11.552	BL
23-Jun-20	13:23	6	CCVL 500.0 ppb	18207	526.775	
23-Jun-20	13:25	8	CCV 2500.0 ppb	77430	2525.714	
23-Jun-20	13:27	12	CCB	-2491	-82.412	LO
23-Jun-20	13:29	0	read baseline	0	-11.552	BL
23-Jun-20	13:31	41	280-137781-b-1	347762	16465.082	HI
23-Jun-20	13:33	42	280-137797-c-1	-10181	-296.964	LO FL
23-Jun-20	13:35	43	280-137797-c-2	692	8.251	
23-Jun-20	13:37	44	280-137800-d-1	74886	2432.040	
23-Jun-20	13:39	45	280-137800-d-2	116180	4038.800	
23-Jun-20	13:41	46	280-137815-b-1	-3063	-98.598	LO
23-Jun-20	13:43	47	280-137815-b-2	31	-10.675	LO
23-Jun-20	13:45	48	280-137815-b-3	117	-8.202	LO
23-Jun-20	13:47	49	280-137823-a-4	12143	343.511	
23-Jun-20	13:49	50	MS 280-137823-a-4	44658	1372.729	
23-Jun-20	13:51	0	RINSE	-1282	-48.097	LO
23-Jun-20	13:53	0	read baseline	0	-11.552	BL
23-Jun-20	13:55	6	CCVL 500.0 ppb	17647	509.696	
23-Jun-20	13:57	8	CCV 2500.0 ppb	78259	2556.378	
23-Jun-20	13:59	12	CCB	-2499	-82.639	LO
23-Jun-20	14:01	0	read baseline	0	-11.552	BL
23-Jun-20	14:03	51	MSD 280-137823-a-4	45073	1386.583	
23-Jun-20	14:05	52	280-137848-c-1	-1173	-45.004	LO
23-Jun-20	14:07	53	280-137848-c-2	1307	25.898	
23-Jun-20	14:09	54	280-137887-a-1	-41	-12.714	LO
23-Jun-20	14:11	55	280-137888-b-1	-135	-15.421	LO
23-Jun-20	14:13	56	280-137888-b-2	-313	-20.489	LO
23-Jun-20	14:15	57	280-137888-b-3	6426	174.365	
23-Jun-20	14:17	58	280-137888-b-4	-465	-24.833	LO
23-Jun-20	14:27	59	280-137740-b-1	130607	9287.170	
23-Jun-20	14:29	60	280-137781-b-1	63439	20192.717	
23-Jun-20	14:31	0	RINSE	-2053	-69.994	LO
23-Jun-20	14:33	0	read baseline	0	-11.552	BL
23-Jun-20	14:35	6	CCVL 500.0 ppb	18435	533.747	
23-Jun-20	14:37	8	CCV 2500.0 ppb	80620	2644.154	
23-Jun-20	14:39	12	CCB	-2591	-85.243	LO
23-Jun-20	14:41	0	read baseline	0	-11.552	BL
23-Jun-20	14:47	61	580-95452-a-2	84371	27847.895	
23-Jun-20	14:49	62	580-95452-a-5	18380	53207.203	
23-Jun-20	14:51	0	RINSE	-672	-30.748	LO
23-Jun-20	14:53	0	read baseline	0	-11.552	BL

Result path	C:\FLOW_4\062320.RST
Sample table path	C:\FLOW_4\062320.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	23-Jun-20
Time acquired	15:07

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
23-Jun-20	14:55	6	CCVL 500.0 ppb	18642	540.074	
23-Jun-20	14:57	8	CCV 2500.0 ppb	81008	2658.619	
23-Jun-20	14:59	12	CCB	-2355	-78.571	LO
23-Jun-20	15:01	0	read baseline	0	-11.552	BL

Peak Table:Ammonia

File name: C:\FLOW_4\062320.RST
Date: 23-Jun-20
Operator: BWH

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	3381	85.711632	
2	0	blk	1	CO	1	1	102	-8.627914	LO
B	0	Read Baseline	1	RB	1	1	0	-11.551745	BL
4	1	Cal 0.0 PPB	1	C	1	1	586	5.206322	
5	3	Cal 25.0 ppb	1	C	1	1	1356	27.311241	
6	4	Cal 50.0 ppb	1	C	1	1	2515	60.677025	
7	5	Cal 100.0 ppb	1	C	1	1	3921	101.364784	
8	6	Cal 500.0 ppb	1	C	1	1	17009	490.260284	
9	7	Cal 1000.0 ppb	1	C	1	1	33251	998.642151	
10	8	Cal 2500.0 ppb	1	C	1	1	76846	2504.141602	
11	9	Cal 5000.0 ppb	1	C	1	1	138843	4998.958496	
12	0	blank	1	BLNK	1	1	-3998	-124.954636	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
14	10	ICVL 500.0 ppb	1	U	1	1	18198	526.517090	
15	11	ICV 2500.0 ppb	1	U	1	1	77338	2522.323242	
16	12	ICB	1	U	1	1	-2445	-81.110832	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
18	8	LCS	1	U	1	1	78981	2583.154785	
19	12	MB	1	U	1	1	-2510	-82.962090	LO
20	13	280-137739-b-1	1	U	1	1	1432	29.480978	
21	14	MS 280-137739-b-1	1	U	1	1	34591	1041.845581	
22	15	MSD 280-137739-b-1	1	U	1	1	34754	1047.107178	
23	16	280-137739-b-2	1	U	1	1	3533	90.115829	
24	17	280-137739-b-3	1	U	1	1	1526	32.206821	
25	18	280-137739-b-4	1	U	1	1	1379	27.969782	
26	19	280-137740-b-1	1	U	1	1	204130	8075.287109	
27	20	280-137740-b-2	1	U	1	1	-6337	-190.501648	LO
28	21	280-137776-b-1	1	U	1	1	-58	-13.197595	LO
29	22	280-137776-b-2	1	U	1	1	-185	-16.841627	LO
30	0	RINSE	1	U	1	1	-181	-16.734818	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
32	6	CCVL 500.0 ppb	1	U	1	1	17047	491.403168	
33	8	CCV 2500.0 ppb	1	U	1	1	79326	2595.952393	
34	12	CCB	1	U	1	1	-2340	-78.128716	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
36	23	280-137776-b-3	1	U	1	1	53	-10.036652	LO
37	24	280-137776-c-4	1	U	1	1	7	-11.362172	LO
38	25	280-137776-b-5	1	U	1	1	-65	-13.412510	LO
39	26	MS 280-137776-b-5	1	U	1	1	33749	1014.688477	
40	27	MSD 280-137776-b-5	1	U	1	1	34128	1026.897705	
41	28	280-137776-c-6	1	U	1	1	-764	-33.351414	LO
42	29	280-137780-b-5	1	U	1	1	802	11.416576	
43	30	280-137780-b-6	1	U	1	1	-39	-12.676763	LO
44	31	280-137780-b-7	1	U	1	1	-21	-12.158108	LO
45	32	280-137780-b-8	1	U	1	1	2	-11.495377	LO
46	0	RINSE	1	U	1	1	248	-4.448927	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
48	6	CCVL 500.0 ppb	1	U	1	1	17624	508.977417	
49	8	CCV 2500.0 ppb	1	U	1	1	81271	2668.454590	
50	12	CCB	1	U	1	1	-2607	-85.712662	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
52	33	280-137780-b-9	1	U	1	1	-9	-11.814942	LO
53	34	280-137780-b-10	1	U	1	1	334	-2.001851	LO
54	35	280-137780-b-11	1	U	1	1	361	-1.218033	LO
55	36	280-137780-b-12	1	U	1	1	-129	-15.232554	LO
56	8	LCS	1	U	1	1	82764	2724.337158	
57	12	MB	1	U	1	1	-2668	-87.439873	LO
58	37	280-137780-b-13	1	U	1	1	-25	-12.266315	LO
59	38	MS 280-137780-b-13	1	U	1	1	35299	1064.763184	
60	39	MSD 280-137780-b-13	1	U	1	1	33998	1022.713379	
61	40	280-137780-b-14	1	U	1	1	-1010	-40.379238	LO
62	0	RINSE	1	U	1	1	-101	-14.435530	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
64	6	CCVL 500.0 ppb	1	U	1	1	18207	526.774841	
65	8	CCV 2500.0 ppb	1	U	1	1	77430	2525.713623	
66	12	CCB	1	U	1	1	-2491	-82.411873	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
68	41	280-137781-b-1	1	U	1	1	347762	16465.082031	HI
69	42	280-137797-c-1	1	U	1	1	-10181	-296.964172	LO FL
70	43	280-137797-c-2	1	U	1	1	692	8.251273	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	44	280-137800-d-1	1	U	1	1	74886	2432.039551	
72	45	280-137800-d-2	1	U	1	1	116180	4038.800049	
73	46	280-137815-b-1	1	U	1	1	-3063	-98.598442	LO
74	47	280-137815-b-2	1	U	1	1	31	-10.675089	LO
75	48	280-137815-b-3	1	U	1	1	117	-8.202076	LO
76	49	280-137823-a-4	1	U	1	1	12143	343.511261	
77	50	MS 280-137823-a-4	1	U	1	1	44658	1372.728638	
78	0	RINSE	1	U	1	1	-1282	-48.097187	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
80	6	CCVL 500.0 ppb	1	U	1	1	17647	509.696228	
81	8	CCV 2500.0 ppb	1	U	1	1	78259	2556.378174	
82	12	CCB	1	U	1	1	-2499	-82.639114	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
84	51	MSD 280-137823-a-4	1	U	1	1	45073	1386.582764	
85	52	280-137848-c-1	1	U	1	1	-1173	-45.004379	LO
86	53	280-137848-c-2	1	U	1	1	1307	25.898462	
87	54	280-137887-a-1	1	U	1	1	-41	-12.714100	LO
88	55	280-137888-b-1	1	U	1	1	-135	-15.420661	LO
89	56	280-137888-b-2	1	U	1	1	-313	-20.489321	LO
90	57	280-137888-b-3	1	U	1	1	6426	174.365387	
91	58	280-137888-b-4	1	U	1	1	-465	-24.832752	LO
92	59	280-137740-b-1	1	U	2	1	130607	9287.169922	
93	60	280-137781-b-1	1	U	10	1	63439	20192.716797	
94	0	RINSE	1	U	1	1	-2053	-69.994164	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
96	6	CCVL 500.0 ppb	1	U	1	1	18435	533.747375	
97	8	CCV 2500.0 ppb	1	U	1	1	80620	2644.153809	
98	12	CCB	1	U	1	1	-2591	-85.243340	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
100	61	580-95452-a-2	1	U	10	1	84371	27847.894531	
101	62	580-95452-a-5	1	U	100	1	18380	53207.203125	
102	0	RINSE	1	U	1	1	-672	-30.747969	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL
104	6	CCVL 500.0 ppb	1	U	1	1	18642	540.073975	
105	8	CCV 2500.0 ppb	1	U	1	1	81008	2658.619385	
106	12	CCB	1	U	1	1	-2355	-78.570580	LO
B	0	read baseline	1	RB	1	1	0	-11.551745	BL

Ammonia:Calibration 1: Peak 4-107

File name: C:\FLOW_4\062320.RST
Date: 23-Jun-20
Operator: BWH

*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	585.634766
*	Cal 25.0 ppb	25.000000	1356.149414
*	Cal 50.0 ppb	50.000000	2514.973633
*	Cal 100.0 ppb	100.000000	3921.325439
*	Cal 500.0 ppb	500.000000	17008.937500
*	Cal 1000.0 ppb	1000.000000	33251.187500
*	Cal 2500.0 ppb	2500.000000	76845.945312
*	Cal 5000.0 ppb	5000.000000	138843.062500

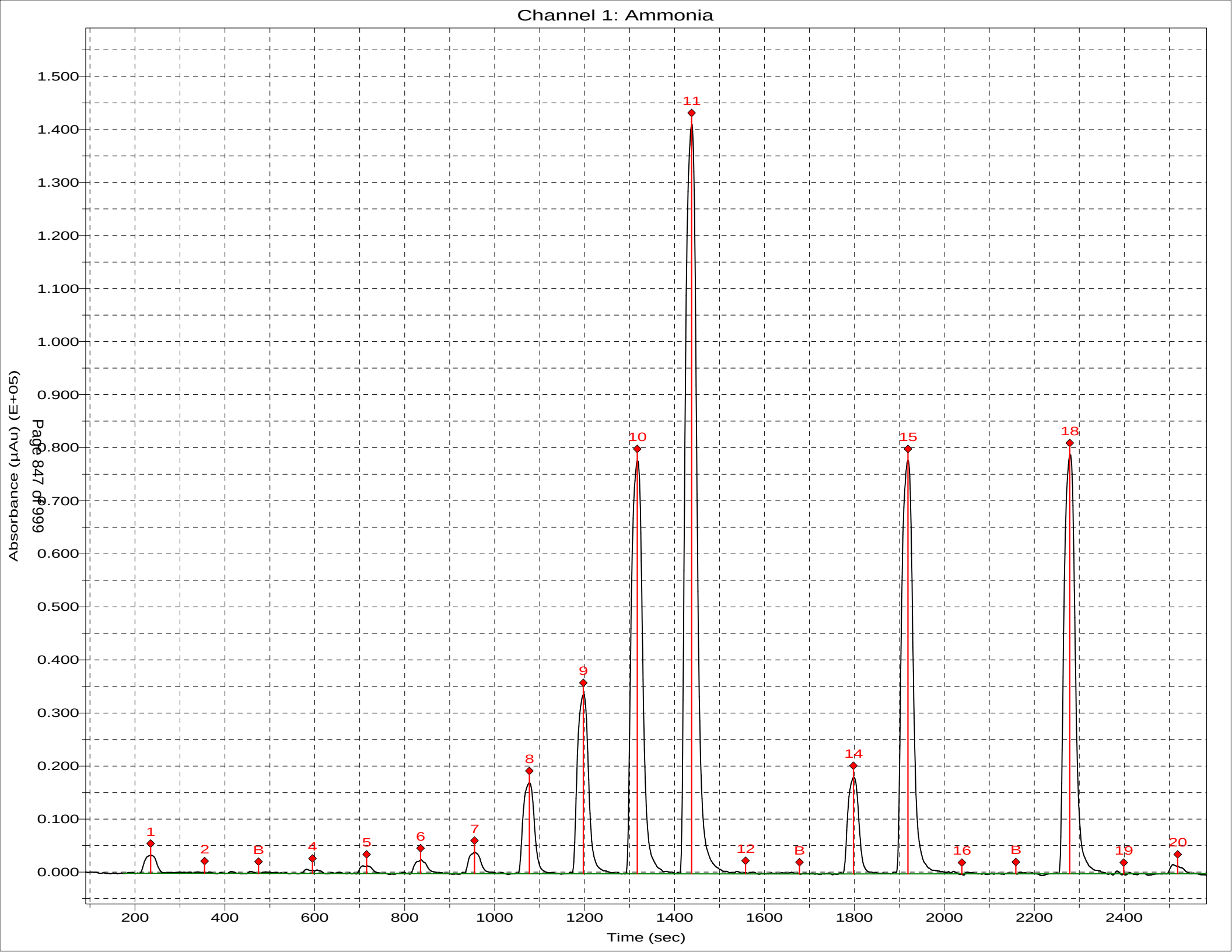
Calib Coef:
x=cyy+by+a
a: (intercept) -1.1552e+01
b: 2.8584e-02
c: 5.4047e-08

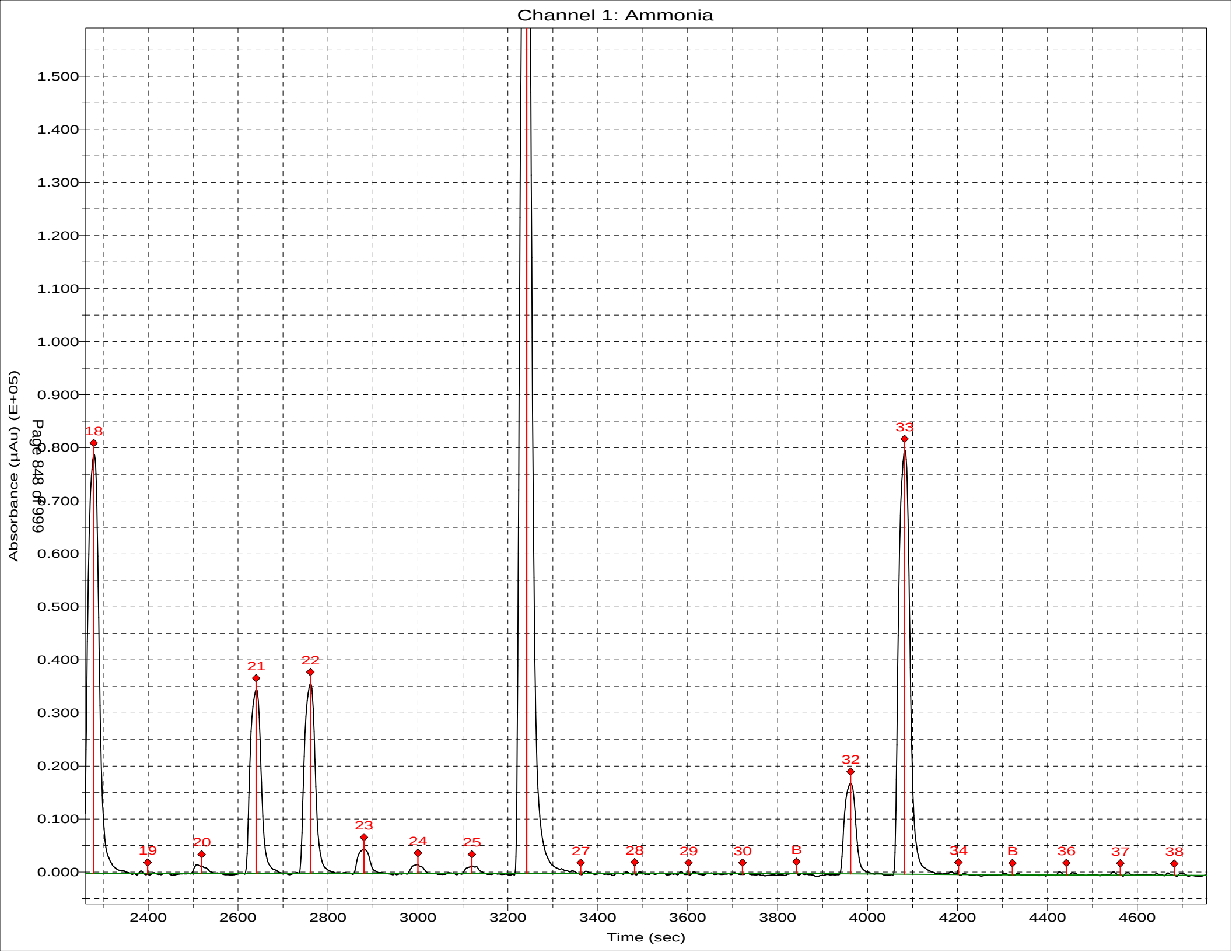
Corr Coef: 0.999991

Carryover: 3.02%

No Drift Peaks

Ammonia:Calibration 1: Peak 4-107
Height (E+05)
1.600
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-0.300
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 1: Ammonia
Absorbance (µAu) (E+05)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
Time (sec)
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
18
19
20
21
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24
25
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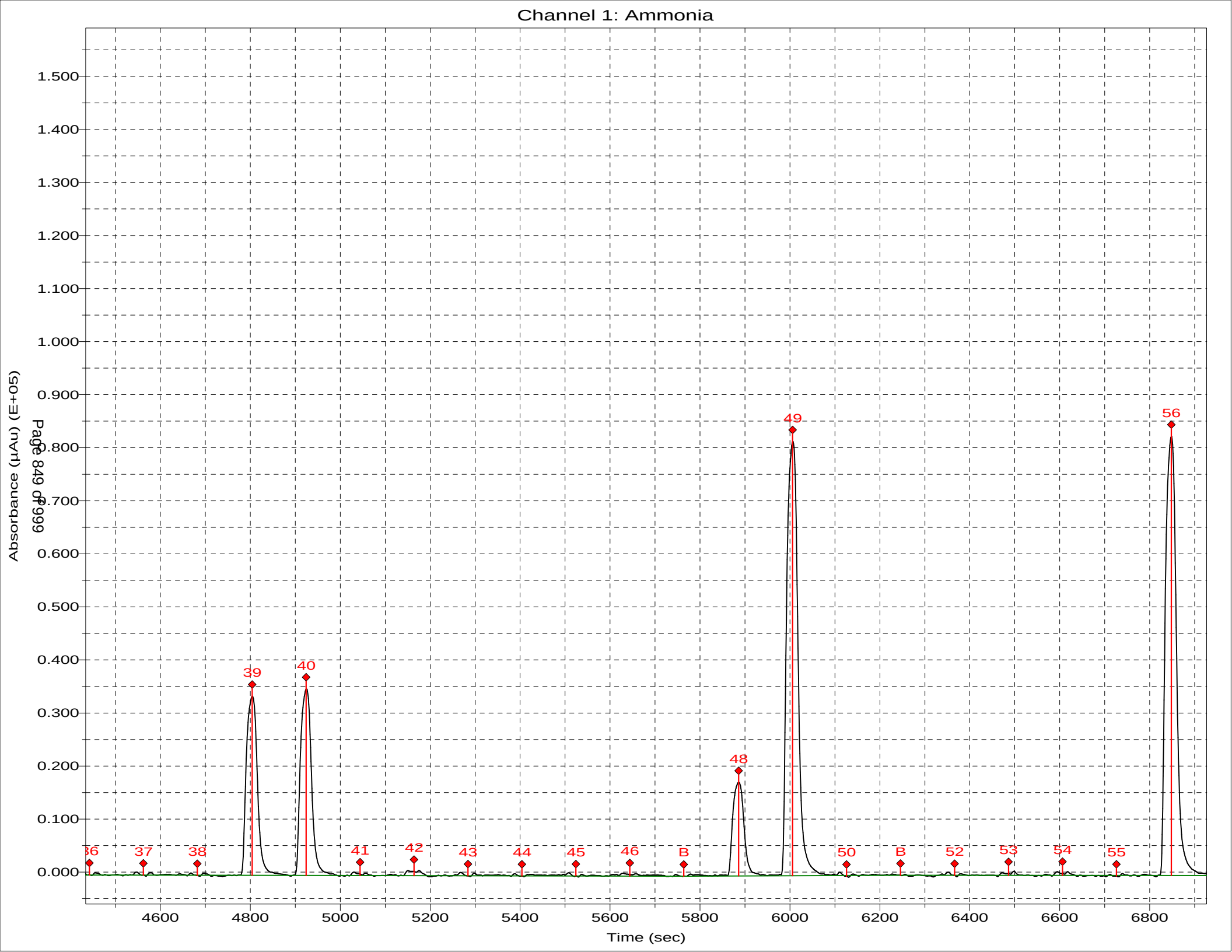
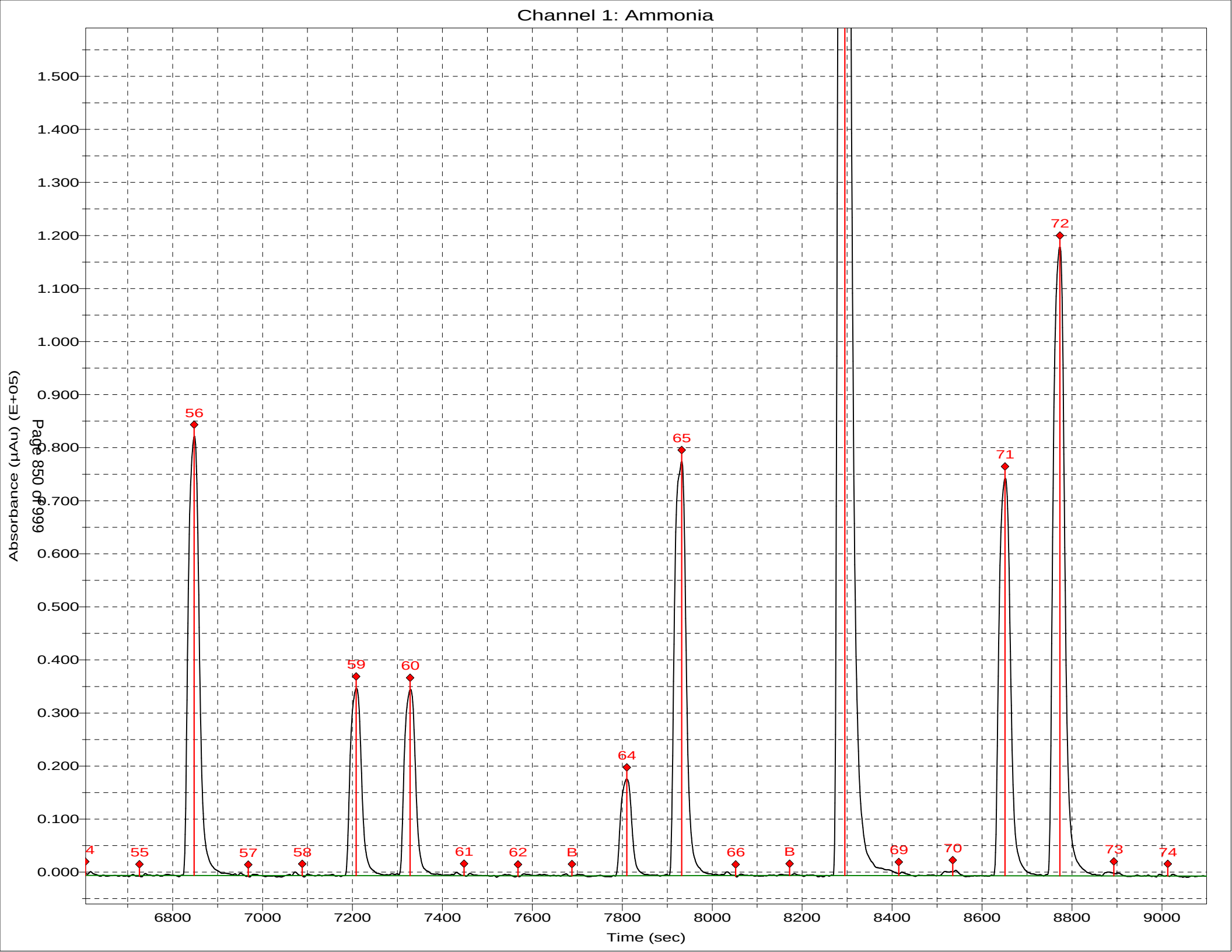
28
29
30
B
32
33
34
B
36
37
38


Channel 1: Ammonia
Absorbance (µAu) (E+05)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
36
37
38
39
40
41
42
43
44
45
46
B
48
49
50
B
52
53
54
55
56
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
Time (sec)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
4
55
56
57
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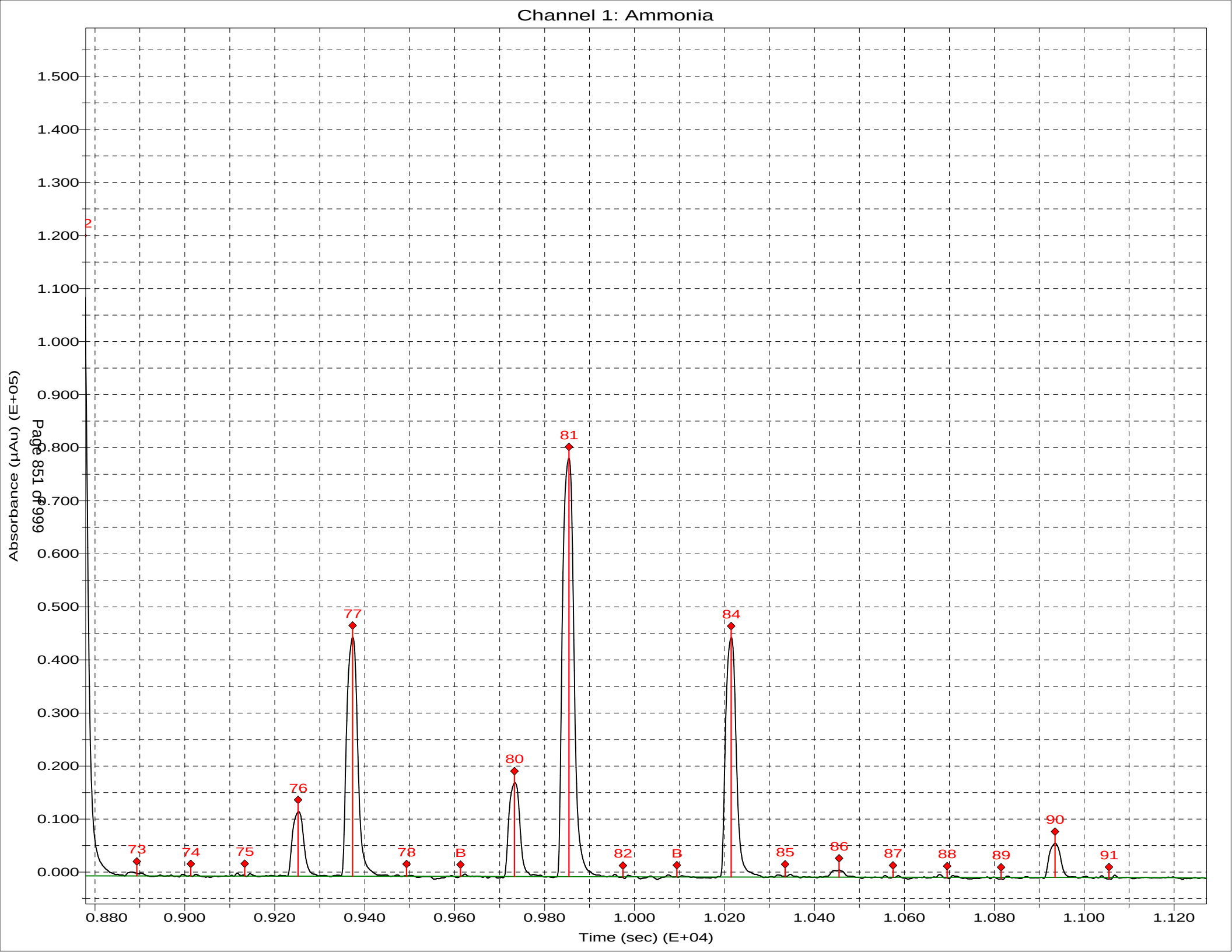
71
72
73
74


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
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1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
1.060
1.080
1.100
1.120
2
73
74
75
76
77
78
B
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81
82
B
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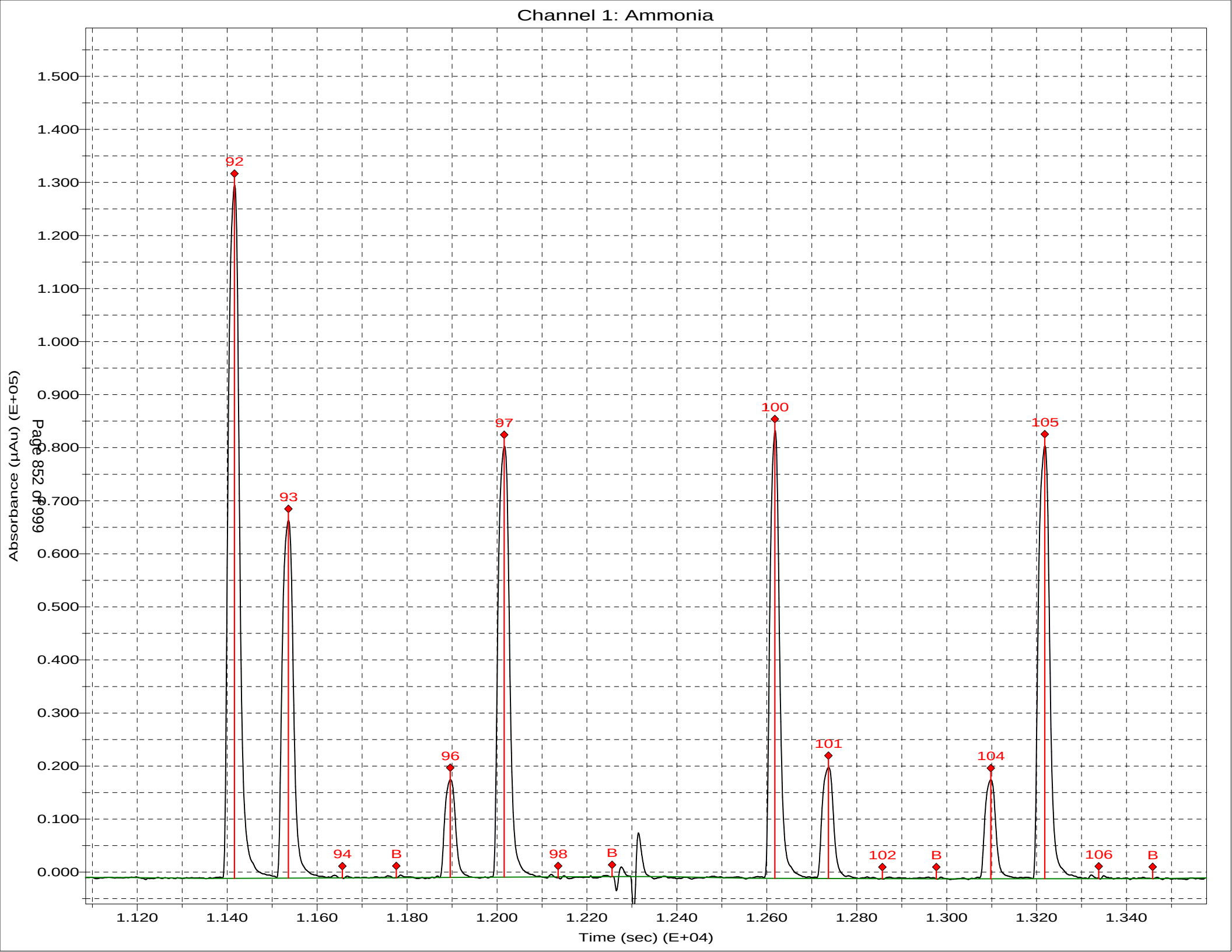

Channel 1: Ammonia
Absorbance (µAu) (E+05)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
92
93
94
B
96
97
98
B
100
101
102
B
104
105
106
B
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
1.280
1.300
1.320
1.340
Time (sec) (E+04)

Sample Table for 062920

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-498263/33-A	Unknown	4 ml
14	1:16	ICB 280-498263/34-A	Unknown	4 ml
15	1:17	LCS 280-499477/1-A	Unknown	4 ml
16	1:18	MB 280-499477/2-A	Unknown	4 ml
17	1:19	280-137650-J-3-A	Unknown	4 ml
18	1:20	280-137650-J-3-B MS	Unknown	4 ml
19	1:21	280-137650-J-3-C MSD	Unknown	4 ml
20	1:22	280-137702-C-1-A	Unknown	4 ml
21	1:23	280-137702-C-1-B MS	Unknown	4 ml
22	1:24	280-137702-C-1-C MSD	Unknown	4 ml
23	1:25	LCS 280-500426/1-A	Unknown	4 ml
24	1:26	MB 280-500426/2-A	Unknown	4 ml
25	1:27	280-137797-C-1-A	Unknown	4 ml
26	1:28	280-137797-C-1-B MS	Unknown	4 ml
27	1:29	280-137797-C-1-C MSD	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-498263/35-A	Unknown	4 ml
30	1:32	CCB 280-498263/36-A	Unknown	4 ml
31	1:33	280-137797-C-2-A	Unknown	4 ml
32	1:34	590-13407-C-1-A	Unknown	4 ml
33	1:35	590-13408-A-3-A	Unknown	4 ml
34	1:36	280-138013-A-1-A	Unknown	4 ml
35	1:37	590-13406-D-1-A	Unknown	4 ml
36	1:38	590-13406-D-2-A	Unknown	4 ml
37	1:39	280-137891-J-2-A	Unknown	4 ml
38	1:40	410-5719-E-5-A	Unknown	4 ml
39	1:41	280-137832-E-1-G	Unknown	4 ml
40	1:42	280-137832-E-2-C	Unknown	4 ml
41	1:43	w	Blank	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-498263/35-A	Unknown	4 ml
44	1:46	CCB 280-498263/36-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-137832-E-2-D MS	Unknown	4 ml
46	1:48	280-137832-E-2-E MSD	Unknown	4 ml
47	1:49	w	Blank	4 ml
48	1:50	280-137832-E-3-C	Unknown	4 ml
49	1:51	280-137832-E-4-C	Unknown	4 ml
50	1:52	280-137832-E-5-C	Unknown	4 ml
51	1:53	580-95486-A-1-A	Unknown	4 ml
52	1:54	580-95486-A-2-A	Unknown	4 ml
53	1:55	580-95486-A-3-A	Unknown	4 ml
54	1:56	580-95486-A-4-A	Unknown	4 ml
55	1:57	580-95486-A-5-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-498263/35-A	Unknown	4 ml
58	1:60	CCB 280-498263/36-A	Unknown	4 ml
59	2:1	580-95486-A-6-A	Unknown	4 ml
60	2:2	w	Blank	4 ml
61	2:3	LCS 280-500426/27-A	Unknown	4 ml
62	2:4	MB 280-500426/28-A	Unknown	4 ml
63	2:5	280-138046-A-1-A	Unknown	4 ml
64	2:6	280-138046-A-1-B MS	Unknown	4 ml
65	2:7	280-138046-A-1-C MSD	Unknown	4 ml
66	2:8	w	Blank	4 ml
67	2:9	280-138046-A-3-A	Unknown	4 ml
68	2:10	580-95486-A-7-A	Unknown	4 ml
69	2:11	580-96486-A-8-A	Unknown	4 ml
70	2:12	280-137974-A-1-A	Unknown	4 ml
71	2:13	w	Blank	4 ml
72	2:14	CCV 280-498263/35-A	Unknown	4 ml
73	2:15	CCB 280-498263/36-A	Unknown	4 ml
74	2:16	280-137974-A-3-A	Unknown	4 ml
75	2:17	280-138010-A-1-A	Unknown	4 ml
76	2:18	280-138010-A-2-A	Unknown	4 ml
77	2:19	280-137848-C-1-A	Unknown	4 ml
78	2:20	280-137848-C-2-A	Unknown	4 ml
79	2:21	w	Blank	4 ml
80	2:22	280-137929-A-1-C MDLV	Unknown	4 ml
81	2:23	280-137929-A-2-C MDLV	Unknown	4 ml
82	2:24	280-137929-A-1-C MDLV	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	w	Blank	4 ml
85	2:27	CCV 280-498263/35-A	Unknown	4 ml
86	2:28	CCB 280-498263/36-A	Unknown	4 ml
87	2:29	590-13407-C-1-A	Unknown	4 ml
88	2:30	280-137891-J-2-A	Unknown	4 ml

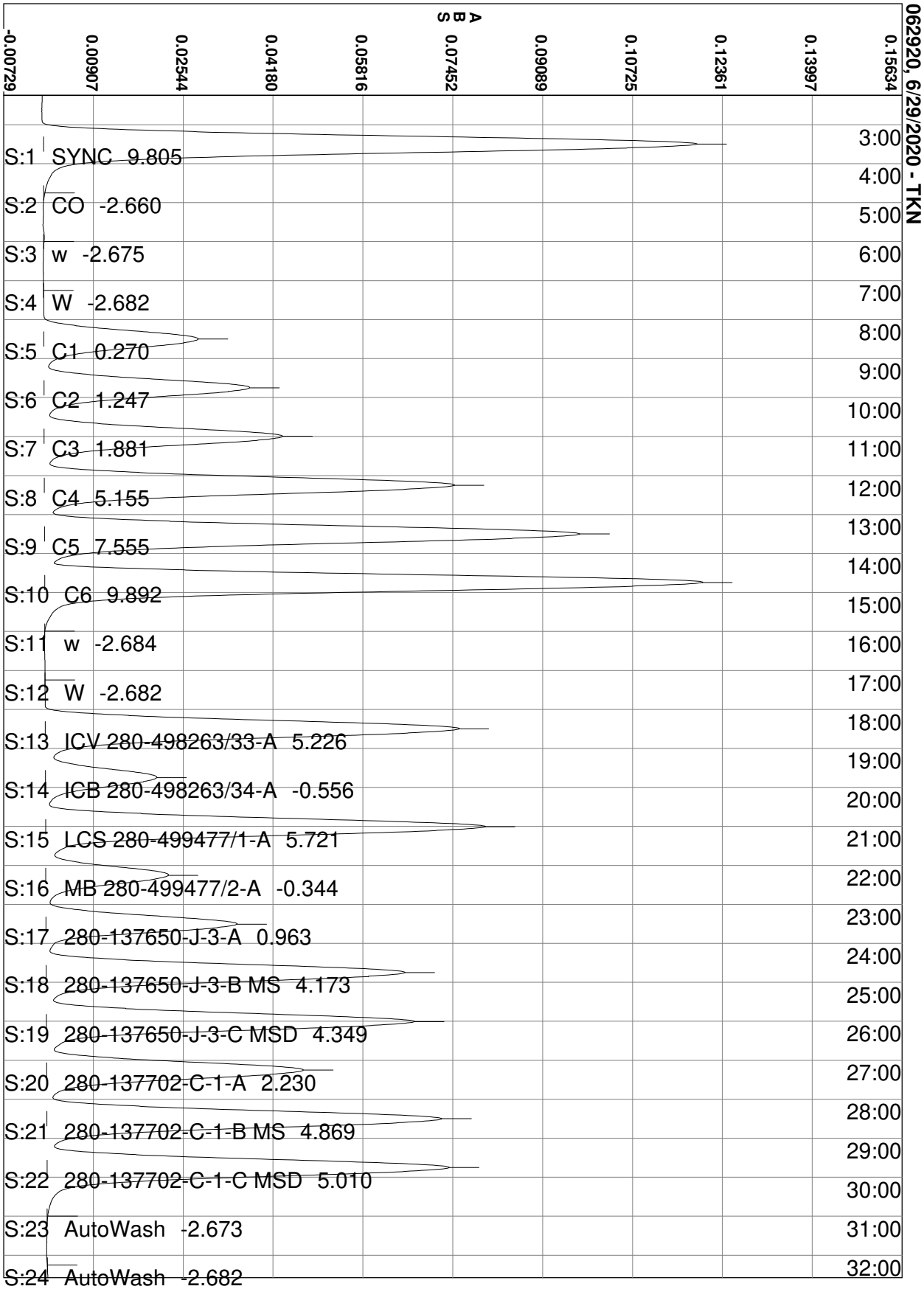
	Position	Identifier	Type	Cup Type
89	2:31	280-137797-C-1-B MS	Unknown	4 ml
90	2:32	280-137797-C-1-C MSD	Unknown	4 ml
91	2:33	280-137929-A-3-C LOQV	Unknown	4 ml
92	2:34	280-137929-A-3-C LOQV	Unknown	4 ml
93	2:35	w	Blank	4 ml
94	2:36	w	Blank	4 ml
95	2:37	w	Blank	4 ml
96	2:38	w	Blank	4 ml
97	2:39	CCV 280-498263/35-A	Unknown	4 ml
98	2:40	CCB 280-498263/36-A	Unknown	4 ml

Run Name: 062920
Configuration: TKN
Run date: 6/29/2020

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	6/29/2020	6:56:46 PM	1	0.11871	9.805
2	1:2	CO	Carry over		6/29/2020	6:57:15 PM	1	0.00021	-2.660
3	1:3	w	Blank		6/29/2020	6:58:30 PM	1	0.00007	-2.675
4	1:4	W	Wash		6/29/2020	6:59:45 PM	1	0.00000	-2.682
5	1:5	C1	Calibrant		6/29/2020	7:01:00 PM	1	0.02807	0.270
6	1:6	C2	Calibrant		6/29/2020	7:02:15 PM	1	0.03736	1.247
7	1:7	C3	Calibrant		6/29/2020	7:03:31 PM	1	0.04338	1.881
8	1:8	C4	Calibrant		6/29/2020	7:04:46 PM	1	0.07450	5.155
9	1:9	C5	Calibrant		6/29/2020	7:06:01 PM	1	0.09732	7.555
10	1:10	C6	Calibrant		6/29/2020	7:07:16 PM	1	0.11954	9.892
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99887
		Intercept:							0.025500
		Linear coef:							0.0095065
11	1:13	w	Blank		6/29/2020	7:08:31 PM	1	-0.00002	-2.684
12	1:14	W	Wash		6/29/2020	7:09:46 PM	1	0.00000	-2.682
13	1:15	ICV 280-498263/33-A	Unknown		6/29/2020	7:11:01 PM	1	0.07519	5.226
14	1:16	ICB 280-498263/34-A	Unknown		6/29/2020	7:12:16 PM	1	0.02022	-0.556
15	1:17	LCS 280-499477/1-A	Unknown		6/29/2020	7:13:31 PM	1	0.07988	5.721
16	1:18	MB 280-499477/2-A	Unknown		6/29/2020	7:14:46 PM	1	0.02223	-0.344
17	1:19	280-137650-J-3-A	Unknown		6/29/2020	7:16:01 PM	1	0.03466	0.963
18	1:20	280-137650-J-3-B MS	Unknown		6/29/2020	7:17:16 PM	1	0.06517	4.173
19	1:21	280-137650-J-3-C MSD	Unknown		6/29/2020	7:18:31 PM	1	0.06685	4.349
20	1:22	280-137702-C-1-A	Unknown		6/29/2020	7:19:46 PM	1	0.04670	2.230
21	1:23	280-137702-C-1-B MS	Unknown		6/29/2020	7:21:01 PM	1	0.07179	4.869
22	1:24	280-137702-C-1-C MSD	Unknown		6/29/2020	7:22:15 PM	1	0.07313	5.010
23	0	AutoWash	AutoWash		6/29/2020	7:23:31 PM	1	0.00009	-2.673
24	0	AutoWash	AutoWash		6/29/2020	7:24:45 PM	1	0.00000	-2.682
25	1:25	LCS 280-500426/1-A	Unknown		6/29/2020	7:26:00 PM	1	0.08719	6.489
26	1:26	MB 280-500426/2-A	Unknown		6/29/2020	7:27:15 PM	1	0.02283	-0.281
27	1:27	280-137797-C-1-A	Unknown		6/29/2020	7:28:30 PM	1	0.02384	-0.175
28	1:28	280-137797-C-1-B MS	Unknown		6/29/2020	7:29:45 PM	1	0.02334	-0.227
29	1:29	280-137797-C-1-C MSD	Unknown		6/29/2020	7:31:00 PM	1	0.02234	-0.333
30	1:30	w	Blank		6/29/2020	7:32:15 PM	1	0.00024	-2.657
31	1:31	CCV 280-498263/35-A	Unknown		6/29/2020	7:33:30 PM	1	0.07300	4.996
32	1:32	CCB 280-498263/36-A	Unknown		6/29/2020	7:34:45 PM	1	0.02243	-0.323
33	1:33	280-137797-C-2-A	Unknown		6/29/2020	7:36:00 PM	1	0.02461	-0.094
34	1:34	590-13407-C-1-A	Unknown		6/29/2020	7:37:16 PM	1	0.12238	10.191
35	0	AutoWash	AutoWash		6/29/2020	7:38:31 PM	1	0.00036	-2.645
36	0	AutoWash	AutoWash		6/29/2020	7:39:46 PM	1	0.00000	-2.682
37	1:35	590-13408-A-3-A	Unknown		6/29/2020	7:41:01 PM	1	0.06051	3.683
38	1:36	280-138013-A-1-A	Unknown		6/29/2020	7:42:16 PM	1	0.11316	9.221

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	590-13406-D-1-A	Unknown		6/29/2020	7:43:31 PM	1	0.04299	1.840
40	1:38	590-13406-D-2-A	Unknown		6/29/2020	7:44:46 PM	1	0.03938	1.461
41	1:39	280-137891-J-2-A	Unknown		6/29/2020	7:46:01 PM	1	0.14757	12.841
42	1:40	410-5719-E-5-A	Unknown		6/29/2020	7:47:16 PM	1	0.02904	0.372
43	1:41	280-137832-E-1-G	Unknown		6/29/2020	7:48:31 PM	1	0.02462	-0.092
44	1:42	280-137832-E-2-C	Unknown		6/29/2020	7:49:46 PM	1	0.02737	0.197
45	1:43	w	Blank		6/29/2020	7:51:01 PM	1	0.00013	-2.668
46	1:44	w	Blank		6/29/2020	7:52:16 PM	1	0.00009	-2.673
47	0	AutoWash	AutoWash		6/29/2020	7:53:31 PM	1	-0.00001	-2.683
48	0	AutoWash	AutoWash		6/29/2020	7:54:46 PM	1	0.00000	-2.682
49	1:45	CCV 280-498263/35-A	Unknown		6/29/2020	7:56:01 PM	1	0.07085	4.770
50	1:46	CCB 280-498263/36-A	Unknown		6/29/2020	7:57:16 PM	1	0.02267	-0.298
51	1:47	280-137832-E-2-D MS	Unknown		6/29/2020	7:58:31 PM	1	0.05283	2.875
52	1:48	280-137832-E-2-E MSD	Unknown		6/29/2020	7:59:45 PM	1	0.05119	2.702
53	1:49	w	Blank		6/29/2020	8:01:00 PM	1	0.00017	-2.664
54	1:50	280-137832-E-3-C	Unknown		6/29/2020	8:02:15 PM	1	0.02355	-0.205
55	1:51	280-137832-E-4-C	Unknown		6/29/2020	8:03:30 PM	1	0.02669	0.125
56	1:52	280-137832-E-5-C	Unknown		6/29/2020	8:04:45 PM	1	0.02522	-0.030
57	1:53	580-95486-A-1-A	Unknown		6/29/2020	8:06:00 PM	1	0.06860	4.534
58	1:54	580-95486-A-2-A	Unknown		6/29/2020	8:07:15 PM	1	0.08176	5.918
59	0	AutoWash	AutoWash		6/29/2020	8:08:30 PM	1	0.00024	-2.657
60	0	AutoWash	AutoWash		6/29/2020	8:09:45 PM	1	0.00000	-2.682
61	1:55	580-95486-A-3-A	Unknown		6/29/2020	8:11:00 PM	1	0.06407	4.058
62	1:56	580-95486-A-4-A	Unknown		6/29/2020	8:12:16 PM	1	0.06920	4.597
63	1:57	580-95486-A-5-A	Unknown		6/29/2020	8:13:31 PM	1	0.06471	4.124
64	1:58	w	Blank		6/29/2020	8:14:46 PM	1	0.00019	-2.662
65	1:59	CCV 280-498263/35-A	Unknown		6/29/2020	8:16:01 PM	1	0.07451	5.155
66	1:60	CCB 280-498263/36-A	Unknown		6/29/2020	8:17:16 PM	1	0.02318	-0.244
67	2:1	580-95486-A-6-A	Unknown		6/29/2020	8:18:31 PM	1	0.06732	4.399
68	2:2	w	Blank		6/29/2020	8:19:46 PM	1	0.00024	-2.657
69	2:3	LCS 280-500426/27-A	Unknown		6/29/2020	8:21:01 PM	1	0.08788	6.562
70	2:4	MB 280-500426/28-A	Unknown		6/29/2020	8:22:16 PM	1	0.02285	-0.279
71	0	AutoWash	AutoWash		6/29/2020	8:23:31 PM	1	0.00012	-2.670
72	0	AutoWash	AutoWash		6/29/2020	8:24:46 PM	1	0.00000	-2.682
73	2:5	280-138046-A-1-A	Unknown		6/29/2020	8:26:01 PM	1	0.03141	0.621
74	2:6	280-138046-A-1-B MS	Unknown		6/29/2020	8:27:16 PM	1	0.05609	3.218
75	2:7	280-138046-A-1-C MSD	Unknown		6/29/2020	8:28:31 PM	1	0.05773	3.390
76	2:8	w	Blank		6/29/2020	8:29:46 PM	1	0.00016	-2.666
77	2:9	280-138046-A-3-A	Unknown		6/29/2020	8:31:01 PM	1	0.03492	0.990
78	2:10	580-95486-A-7-A	Unknown		6/29/2020	8:32:16 PM	1	0.06247	3.889
79	2:11	580-96486-A-8-A	Unknown		6/29/2020	8:33:30 PM	1	0.06475	4.129
80	2:12	280-137974-A-1-A	Unknown		6/29/2020	8:34:45 PM	1	0.02515	-0.037
81	2:13	w	Blank		6/29/2020	8:36:00 PM	1	-0.00007	-2.690
82	2:14	CCV 280-498263/35-A	Unknown		6/29/2020	8:37:15 PM	1	0.07752	5.472
83	0	AutoWash	AutoWash		6/29/2020	8:38:30 PM	1	0.00006	-2.676
84	0	AutoWash	AutoWash		6/29/2020	8:39:45 PM	1	0.00000	-2.682
85	2:15	CCB 280-498263/36-A	Unknown		6/29/2020	8:41:00 PM	1	0.02296	-0.267
86	2:16	280-137974-A-3-A	Unknown		6/29/2020	8:42:15 PM	1	0.02598	0.051

	Position	Identifier	Type	Commei	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-138010-A-1-A	Unknown		6/29/2020	8:43:30 PM	1	0.05013	2.591
88	2:18	280-138010-A-2-A	Unknown		6/29/2020	8:44:45 PM	1	0.03848	1.365
89	2:19	280-137848-C-1-A	Unknown		6/29/2020	8:46:00 PM	1	0.02102	-0.471
90	2:20	280-137848-C-2-A	Unknown		6/29/2020	8:47:15 PM	1	0.01870	-0.716
91	2:21	w	Blank		6/29/2020	8:48:31 PM	1	0.00002	-2.680
92	2:22	280-137929-A-1-C MDLV	Unknown		6/29/2020	8:49:46 PM	1	0.03834	1.351
93	2:23	280-137929-A-2-C MDLV	Unknown		6/29/2020	8:51:01 PM	1	0.03776	1.290
94	2:24	280-137929-A-1-C MDLV	Unknown		6/29/2020	8:52:16 PM	1	0.03831	1.347
95	0	AutoWash	AutoWash		6/29/2020	8:53:31 PM	1	0.00017	-2.664
96	0	AutoWash	AutoWash		6/29/2020	8:54:46 PM	1	0.00000	-2.682
97	2:25	w	Blank		6/29/2020	8:56:01 PM	1	0.00007	-2.675
98	2:26	w	Blank		6/29/2020	8:57:16 PM	1	-0.00001	-2.684
99	2:27	CCV 280-498263/35-A	Unknown		6/29/2020	8:58:31 PM	1	0.07691	5.408
100	2:28	CCB 280-498263/36-A	Unknown		6/29/2020	8:59:46 PM	1	0.02382	-0.177
101	2:29	590-13407-C-1-A	Unknown		6/29/2020	9:01:01 PM	2	0.07174	9.728
102	2:30	280-137891-J-2-A	Unknown		6/29/2020	9:02:16 PM	2	0.09067	13.710
103	2:31	280-137797-C-1-B MS	Unknown		6/29/2020	9:03:31 PM	1	0.05277	2.868
104	2:32	280-137797-C-1-C MSD	Unknown		6/29/2020	9:04:46 PM	1	0.05109	2.692
105	2:33	280-137929-A-3-C LOQV	Unknown		6/29/2020	9:06:01 PM	1	0.03893	1.413
106	2:34	280-137929-A-3-C LOQV	Unknown		6/29/2020	9:07:16 PM	1	0.03946	1.469
107	0	AutoWash	AutoWash		6/29/2020	9:08:30 PM	1	0.00022	-2.660
108	0	AutoWash	AutoWash		6/29/2020	9:09:45 PM	1	0.00000	-2.682
109	2:35	w	Blank		6/29/2020	9:11:00 PM	1	0.03861	1.379
110	2:36	w	Blank		6/29/2020	9:12:15 PM	1	0.00019	-2.663
111	2:37	w	Blank		6/29/2020	9:13:30 PM	1	0.00001	-2.682
112	2:38	w	Blank		6/29/2020	9:14:45 PM	1	0.07138	4.826
113	2:39	CCV 280-498263/35-A	Unknown		6/29/2020	9:16:00 PM	1	0.06934	4.612
114	2:40	CCB 280-498263/36-A	Unknown		6/29/2020	9:17:15 PM	1	0.02257	-0.308
115	0	AutoWash	AutoWash		6/29/2020	9:18:30 PM	1	0.00001	-2.681
116	0	AutoWash	AutoWash		6/29/2020	9:19:45 PM	1	0.00000	-2.682


062920, 6/29/2020 - TKN
ABS
-0.00729
0.00907
0.02544
0.04180
0.05816
0.07452
0.09089
0.10725
0.12361
0.13997
0.15634
S:1 SYNC 9.805
S:2 CO -2.660
S:3 w -2.675
S:4 W -2.682
S:5 C1 0.270
S:6 C2 1.247
S:7 C3 1.881
S:8 C4 5.155
S:9 C5 7.555
S:10 C6 9.892
S:11 w -2.684
S:12 W -2.682
S:13 ICV 280-498263/33-A 5.226
S:14 ICB 280-498263/34-A -0.556
S:15 LCS 280-499477/1-A 5.721
S:16 MB 280-499477/2-A -0.344
S:17 280-137650-J-3-A 0.963
S:18 280-137650-J-3-B MS 4.173
S:19 280-137650-J-3-C MSD 4.349
S:20 280-137702-C-1-A 2.230
S:21 280-137702-C-1-B MS 4.869
S:22 280-137702-C-1-C MSD 5.010
S:23 AutoWash -2.673
S:24 AutoWash -2.682
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062920, 6/29/2020 - TKN
ABS
-0.00729
0.00907
0.02544
0.04180
0.05816
0.07452
0.09089
0.10725
0.12361
0.13997
0.15634
S:25 LCS 280-500426/1-A 6.489
S:26 MB 280-500426/2-A -0.281
S:27 280-137797-C-1-A -0.175
S:28 280-137797-C-1-B MS -0.227
S:29 280-137797-C-1-C MSD -0.333
S:30 w -2.657
S:31 CCV 280-498263/35-A 4.996
S:32 CCB 280-498263/36-A -0.323
S:33 280-137797-C-2-A -0.094
S:34 590-13407-C-1-A 10.191
S:35 AutoWash -2.645
S:36 AutoWash -2.682
S:37 590-13408-A-3-A 3.683
S:38 280-138013-A-1-A 9.221
S:39 590-13406-D-1-A 1.840
S:40 590-13406-D-2-A 1.461
S:41 280-137891-J-2-A 12.841
S:42 410-5719-E-5-A 0.372
S:43 280-137832-E-1-G -0.092
S:44 280-137832-E-2-C 0.197
S:45 w -2.668
S:46 w -2.673
S:47 AutoWash -2.683
S:48 AutoWash -2.682
33:00
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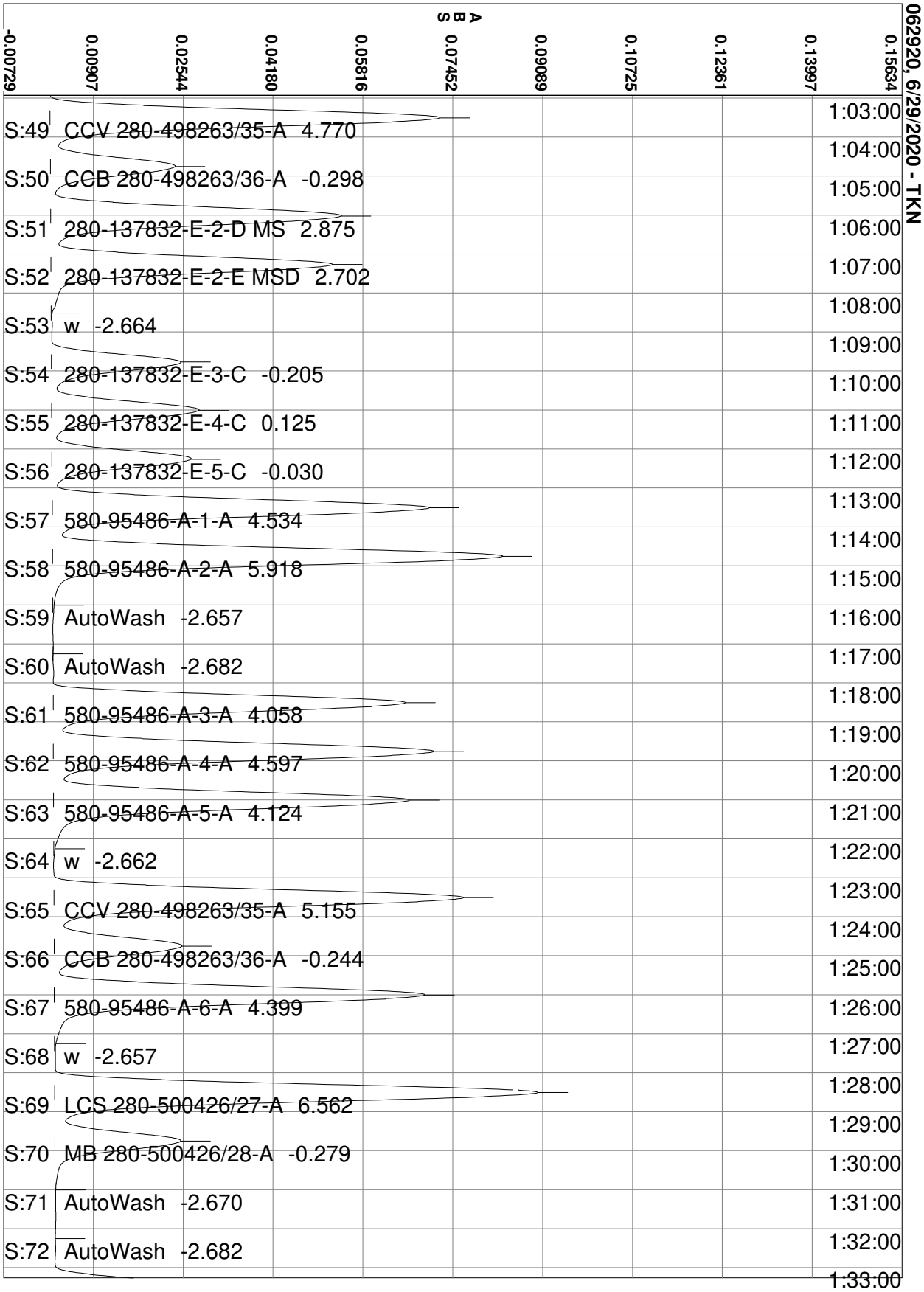
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0.02544
0.04180
0.05816
0.07452
0.09089
0.10725
0.12361
0.13997
0.15634
S:49 CCV 280-498263/35-A 4.770
S:50 CCB 280-498263/36-A -0.298
S:51 280-137832-E-2-D MS 2.875
S:52 280-137832-E-2-E MSD 2.702
S:53 w -2.664
S:54 280-137832-E-3-C -0.205
S:55 280-137832-E-4-C 0.125
S:56 280-137832-E-5-C -0.030
S:57 580-95486-A-1-A 4.534
S:58 580-95486-A-2-A 5.918
S:59 AutoWash -2.657
S:60 AutoWash -2.682
S:61 580-95486-A-3-A 4.058
S:62 580-95486-A-4-A 4.597
S:63 580-95486-A-5-A 4.124
S:64 w -2.662
S:65 CCV 280-498263/35-A 5.155
S:66 CCB 280-498263/36-A -0.244
S:67 580-95486-A-6-A 4.399
S:68 w -2.657
S:69 LCS 280-500426/27-A 6.562
S:70 MB 280-500426/28-A -0.279
S:71 AutoWash -2.670
S:72 AutoWash -2.682
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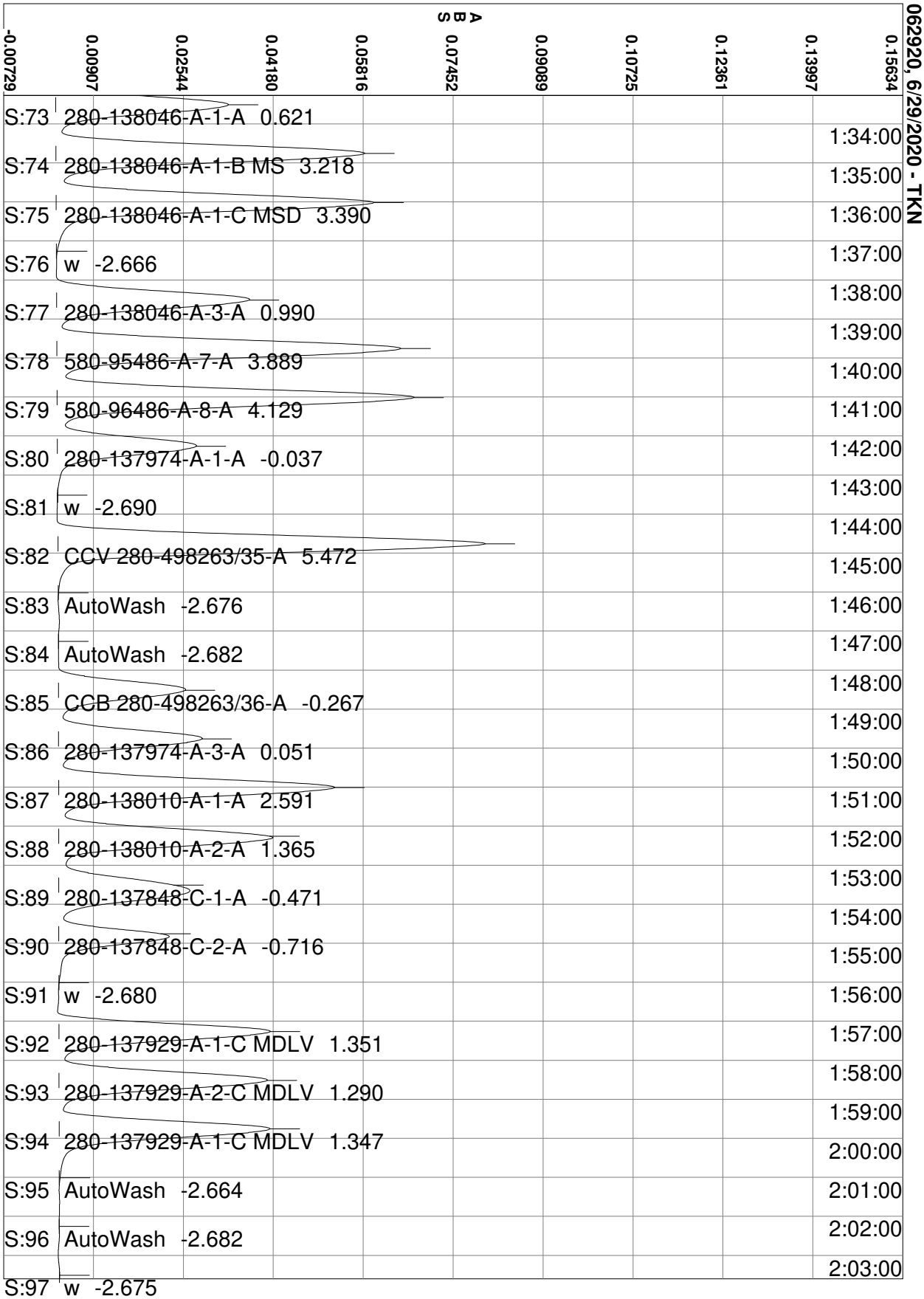
062920, 6/29/2020 - TKN
ABS
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0.02544
0.04180
0.05816
0.07452
0.09089
0.10725
0.12361
0.13997
0.15634
S:73 280-138046-A-1-A 0.621
S:74 280-138046-A-1-B MS 3.218
S:75 280-138046-A-1-C MSD 3.390
S:76 w -2.666
S:77 280-138046-A-3-A 0.990
S:78 580-95486-A-7-A 3.889
S:79 580-96486-A-8-A 4.129
S:80 280-137974-A-1-A -0.037
S:81 w -2.690
S:82 CCV 280-498263/35-A 5.472
S:83 AutoWash -2.676
S:84 AutoWash -2.682
S:85 CCB 280-498263/36-A -0.267
S:86 280-137974-A-3-A 0.051
S:87 280-138010-A-1-A 2.591
S:88 280-138010-A-2-A 1.365
S:89 280-137848-C-1-A -0.471
S:90 280-137848-C-2-A -0.716
S:91 w -2.680
S:92 280-137929-A-1-C MDLV 1.351
S:93 280-137929-A-2-C MDLV 1.290
S:94 280-137929-A-1-C MDLV 1.347
S:95 AutoWash -2.664
S:96 AutoWash -2.682
S:97 w -2.675
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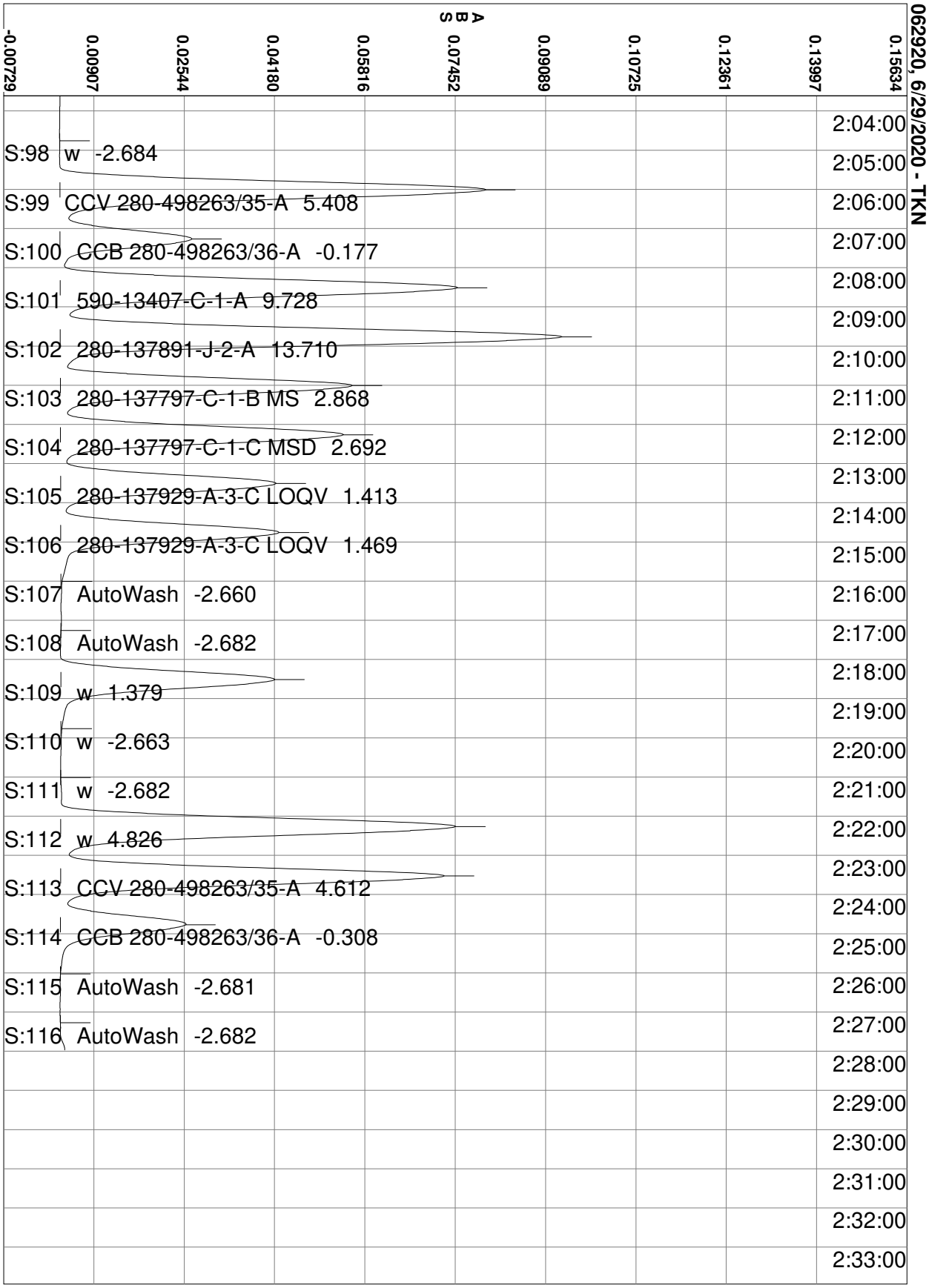
062920, 6/29/2020 - TKN
ABS
-0.00729
0.00907
0.02544
0.04180
0.05816
0.07452
0.09089
0.10725
0.12361
0.13997
0.15634
S:98 w -2.684
S:99 CCV 280-498263/35-A 5.408
S:100 CCB 280-498263/36-A -0.177
S:101 590-13407-C-1-A 9.728
S:102 280-137891-J-2-A 13.710
S:103 280-137797-C-1-B MS 2.868
S:104 280-137797-C-1-C MSD 2.692
S:105 280-137929-A-3-C LOQV 1.413
S:106 280-137929-A-3-C LOQV 1.469
S:107 AutoWash -2.660
S:108 AutoWash -2.682
S:109 w 1.379
S:110 w -2.663
S:111 w -2.682
S:112 w 4.826
S:113 CCV 280-498263/35-A 4.612
S:114 CCB 280-498263/36-A -0.308
S:115 AutoWash -2.681
S:116 AutoWash -2.682
2:04:00
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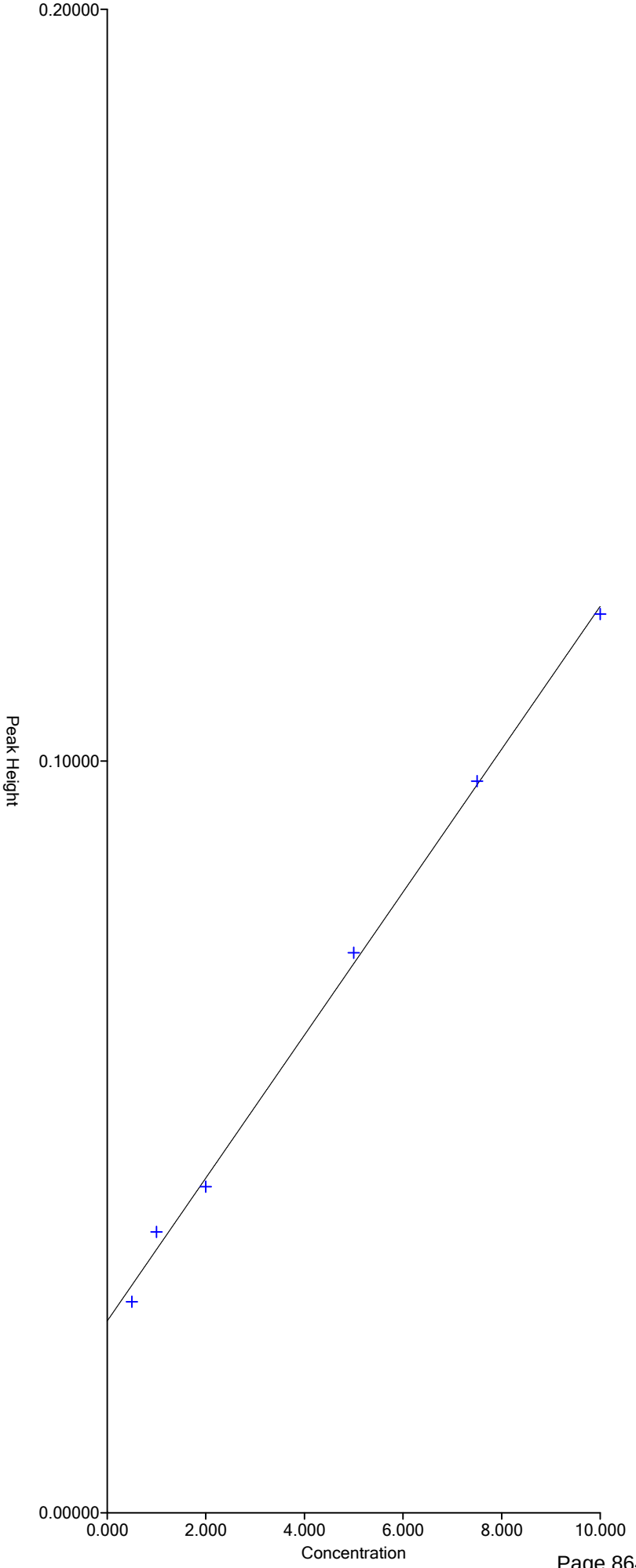
Calibration for TKN



Segment 1: Equation: y = 0.009507x + 0.02550
Correlation: 0.9989

X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	svc
Operator ID	svc
Platform	FS III/IV/3100
Software Rev Code	240
Data system ID	54
Result path	C:\FLOW_4\062820.RST
Sample table path	C:\FLOW_4\062820.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	28-Jun-20
Time acquired	19:35

Date	Time	Cup	Name
28-Jun-20	16:38	109	SYNC
28-Jun-20	16:40	0	Carryover
28-Jun-20	16:42	0	Carryover (Statistics)
28-Jun-20	16:44	0	read baseline
28-Jun-20	16:46	101	Cal 0.00 ppb
28-Jun-20	16:48	102	Cal 50.0 ppb
28-Jun-20	16:50	103	Cal 100 ppb
28-Jun-20	16:52	104	Cal 500 ppb
28-Jun-20	16:54	105	Cal 1000 ppb
28-Jun-20	16:56	106	Cal 2500 ppb
28-Jun-20	16:58	107	Cal 5000 ppb
28-Jun-20	17:00	108	Cal 7500 ppb
28-Jun-20	17:02	109	Cal 10000 ppb
28-Jun-20	17:04	0	Blank
28-Jun-20	17:06	0	Read Baseline
28-Jun-20	17:08	110	5000 PPB NO2
28-Jun-20	17:10	111	ICV 5000 PPB
28-Jun-20	17:12	112	ICV 2000 PPB
28-Jun-20	17:14	0	ICB
28-Jun-20	17:16	0	Read Baseline
28-Jun-20	17:18	107	LCS
28-Jun-20	17:20	0	MB
28-Jun-20	17:22	113	280-137720-B-2
28-Jun-20	17:24	114	ms 280-137720-B-2
28-Jun-20	17:26	115	msd 280-137720-B-2
28-Jun-20	17:28	116	280-137720-B-3
28-Jun-20	17:30	117	280-137720-B-4
28-Jun-20	17:32	118	280-137720-B-5
28-Jun-20	17:34	119	280-137707-K-2
28-Jun-20	17:36	120	280-137707-K-1
28-Jun-20	17:38	121	280-137852-C-7
28-Jun-20	17:40	122	280-137852-C-8
28-Jun-20	17:42	0	Rinse
28-Jun-20	17:44	0	Read Baseline
28-Jun-20	17:46	107	CCV 5000 ppb
28-Jun-20	17:48	105	CCVL 1000 ppb
28-Jun-20	17:50	0	CCB
28-Jun-20	17:52	0	Read Baseline
28-Jun-20	17:54	123	280-137852-C-9
28-Jun-20	17:56	124	280-137852-B-10
28-Jun-20	17:58	125	280-137852-C-11
28-Jun-20	18:00	126	ms 280-137852-C-11
28-Jun-20	18:02	127	msd 280-137852-C-11
28-Jun-20	18:04	128	280-137852-C-12

Result path	C:\FLOW_4\062820.RST
Sample table path	C:\FLOW_4\062820.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	28-Jun-20
Time acquired	19:35

Date	Time	Cup	Name
28-Jun-20	18:06	129	280-137852-E-13
28-Jun-20	18:08	130	280-137852-B-14
28-Jun-20	18:10	131	280-137852-E-15
28-Jun-20	18:12	132	280-137852-C-16
28-Jun-20	18:14	0	Rinse
28-Jun-20	18:16	0	Read Baseline
28-Jun-20	18:18	107	CCV 5000 ppb
28-Jun-20	18:20	105	CCVL 1000 ppb
28-Jun-20	18:22	0	CCB
28-Jun-20	18:24	0	Read Baseline
28-Jun-20	18:26	133	280-137852-C-17
28-Jun-20	18:28	134	280-137852-C-18
28-Jun-20	18:30	135	280-137852-C-19
28-Jun-20	18:32	136	280-137852-C-20
28-Jun-20	18:34	107	LCS
28-Jun-20	18:36	0	MB
28-Jun-20	18:38	137	280-137852-E-22
28-Jun-20	18:40	138	ms 280-137852-E-22
28-Jun-20	18:42	139	msd 280-137852-E-22
28-Jun-20	18:44	140	280-137852-C-21
28-Jun-20	18:46	0	Rinse
28-Jun-20	18:48	0	Read Baseline
28-Jun-20	18:50	107	CCV 5000 ppb
28-Jun-20	18:52	105	CCVL 1000 ppb
28-Jun-20	18:54	0	CCB
28-Jun-20	18:56	0	Read Baseline
28-Jun-20	18:58	141	280-137852-E-23
28-Jun-20	19:00	142	280-137848-C-1
28-Jun-20	19:02	143	280-137848-C-2
28-Jun-20	19:04	144	280-137797-C-1
28-Jun-20	19:06	145	280-137797-C-2
28-Jun-20	19:08	146	280-137929-a-1 mdlv
28-Jun-20	19:10	147	280-137929-a-2 mdlv
28-Jun-20	19:12	148	280-137929-a-3 loqv
28-Jun-20	19:14	149	280-137797-C-1
28-Jun-20	19:16	150	280-137797-C-2
28-Jun-20	19:18	0	Rinse
28-Jun-20	19:20	0	Read Baseline
28-Jun-20	19:22	107	CCV 5000 ppb
28-Jun-20	19:24	105	CCVL 1000 ppb
28-Jun-20	19:26	0	CCB
28-Jun-20	19:28	0	Read Baseline

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	svc
Operator ID	svc
Platform	FS III/IV/3100
Software Rev Code	240
Data system ID	54
Result path	C:\FLOW_4\062820.RST
Sample table path	C:\FLOW_4\062820.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	28-Jun-20
Time acquired	19:35

	Nitrate as N					
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]	
SYNC	2525466	10394.833	HI			
Carryover	8255	2.570				
Carryover	811	-33.440	LO			
(Statistics)				4533	-15.431	N
read baseline	0	-37.365	BL			
Cal 0.00 ppb	972	-32.659	LO			
Cal 50.0 ppb	10313	12.518				
Cal 100 ppb	21780	67.918				
Cal 500 ppb	110387	493.489				
Cal 1000 ppb	225418	1039.391				
Cal 2500 ppb	583223	2689.921				
Cal 5000 ppb	1089848	4903.963				
Cal 7500 ppb	1714312	7434.629				
Cal 10000 ppb	2422867	10040.829	HI			
Blank	1381	-30.681	LO			
Read Baseline	0	-37.365	BL UM			
5000 PPB NO2	1129390	5070.703				
ICV 5000 PPB	1118950	5026.766				
ICV 2000 PPB	457630	2118.763				
ICB	813	-33.431	LO			
Read Baseline	0	-37.365	BL			
LCS	1192993	5337.064				
MB	-516	-39.864	LO			
280-137720-B-2	114215	511.777				
ms 280-137720-B-2	990080	4479.357				
msd 280-137720-B-2	1008013	4556.093				
280-137720-B-3	1131502	507958.594				
280-137720-B-4	153	-36.623	LO			
280-137720-B-5	-10	-37.415	LO			
280-137707-K-2	116388	522.149				
280-137707-K-1	596	-34.482	LO			
280-137852-C-7	555	-34.678	LO			
280-137852-C-8	5154	-12.429	LO			
Rinse	-466	-39.620	LO			
Read Baseline	0	-37.365	BL			
CCV 5000 ppb	1150212	5158.154				
CCVL 1000 ppb	220889	1018.038				
CCB	404	-35.408	LO			
Read Baseline	0	-37.365	BL			
280-137852-C-9	-454	-39.565	LO			
280-137852-B-10	23703	77.202				
280-137852-C-11	3567	-20.105	LO			
ms 280-137852-C-11	870763	3964.215				
msd 280-137852-C-11	865574	3941.632				
280-137852-C-12	6315	-6.813	LO			

Result path	C:\FLOW_4\062820.RST
Sample table path	C:\FLOW_4\062820.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	28-Jun-20
Time acquired	19:35

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
280-137852-E-13	853	-33.235	LO		
280-137852-B-14	11539	18.448			
280-137852-E-15	975	-32.646	LO		
280-137852-C-16	11626	18.869			
Rinse	-250	-38.573	LO		
Read Baseline	0	-37.365	BL		
CCV 5000 ppb	1108307	4981.912			
CCVL 1000 ppb	208366	958.936			
CCB	219	-36.307	LO		
Read Baseline	0	-37.365	BL		
280-137852-C-17	1279	-31.177	LO		
280-137852-C-18	3174	-22.007	LO		
280-137852-C-19	612	-34.403	LO		
280-137852-C-20	824	-33.378	LO		
LCS	1086014	4887.750			
MB	-40	-37.559	LO		
280-137852-E-22	1238	-31.375	LO		
ms 280-137852-E-22	821131	3747.575			
msd 280-137852-E-22	834751	3807.165			
280-137852-C-21	2124	-27.088	LO		
Rinse	-209	-38.379	LO		
Read Baseline	0	-37.365	BL		
CCV 5000 ppb	1103453	4961.432			
CCVL 1000 ppb	208336	958.794			
CCB	1539	-29.915	LO		
Read Baseline	0	-37.365	BL		
280-137852-E-23	747693	1369795.625			
280-137848-C-1	1183332	26483.760			
280-137848-C-2	665649	3059.960			
280-137797-C-1	3008794	23965.965	HI		
280-137797-C-2	2997602	23895.379	HI		
280-137929-a-1 mdlv	12200	21.639	FL		
280-137929-a-2 mdlv	13254	26.737			
280-137929-a-3 loqv	50616	206.899			
280-137797-C-1	1754585	30361.273			
280-137797-C-2	1747553	30252.799			
Rinse	397	-35.444	LO		
Read Baseline	0	-37.365	BL		
CCV 5000 ppb	1064551	4796.830			
CCVL 1000 ppb	237209	1094.929			
CCB	1374	-30.717	LO		
Read Baseline	0	-37.365	BL		

Peak Table:Nitrate as N

File name: C:\FLOW_4\062820.RST
Date: 28-Jun-20
Operator: svc

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	109	SYNC	1	SYNC	1	1	2525466	10394.833008	HI
2	0	Carryover	1	CO	1	1	8255	2.570092	
3	0	Carryover	2	CO	1	1	811	-33.439552	LO
B	0	read baseline	1	RB	1	1	0	-37.365150	BL
5	101	Cal 0.00 ppb	1	C	1	1	972	-32.658840	LO
6	102	Cal 50.0 ppb	1	C	1	1	10313	12.517787	
7	103	Cal 100 ppb	1	C	1	1	21780	67.918449	
8	104	Cal 500 ppb	1	C	1	1	110387	493.488678	
9	105	Cal 1000 ppb	1	C	1	1	225418	1039.391113	
10	106	Cal 2500 ppb	1	C	1	1	583223	2689.921143	
11	107	Cal 5000 ppb	1	C	1	1	1089848	4903.963379	
12	108	Cal 7500 ppb	1	C	1	1	1714312	7434.628906	
13	109	Cal 10000 ppb	1	C	1	1	2422867	10040.829102	HI
14	0	Blank	1	BLNK	1	1	1381	-30.681358	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL UM
16	110	5000 PPB NO2	1	U	1	1	1129390	5070.702637	
17	111	ICV 5000 PPB	1	CCV	1	1	1118950	5026.766113	
18	112	ICV 2000 PPB	1	CCV	1	1	457630	2118.763184	
19	0	ICB	1	U	1	1	813	-33.431053	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
21	107	LCS	1	U	1	1	1192993	5337.064453	
22	0	MB	1	U	1	1	-516	-39.864273	LO
23	113	280-137720-B-2	1	U	1	1	114215	511.776520	
24	114	ms 280-137720-B-2	1	U	1	1	990080	4479.356934	
25	115	msd 280-137720-B-2	1	U	1	1	1008013	4556.093262	
26	116	280-137720-B-3	1	U	100	1	1131502	507958.593750	
27	117	280-137720-B-4	1	U	1	1	153	-36.623451	LO
28	118	280-137720-B-5	1	U	1	1	-10	-37.415424	LO
29	119	280-137707-K-2	1	U	1	1	116388	522.149353	
30	120	280-137707-K-1	1	U	1	1	596	-34.481758	LO
31	121	280-137852-C-7	1	U	1	1	555	-34.677788	LO
32	122	280-137852-C-8	1	U	1	1	5154	-12.429206	LO
33	0	Rinse	1	U	1	1	-466	-39.619766	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
35	107	CCV 5000 ppb	1	CCV	1	1	1150212	5158.153809	
36	105	CCVL 1000 ppb	1	CCV	1	1	220889	1018.038147	
37	0	CCB	1	U	1	1	404	-35.408020	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
39	123	280-137852-C-9	1	U	1	1	-454	-39.564606	LO
40	124	280-137852-B-10	1	U	1	1	23703	77.201935	
41	125	280-137852-C-11	1	U	1	1	3567	-20.104897	LO
42	126	ms 280-137852-C-11	1	U	1	1	870763	3964.215088	
43	127	msd 280-137852-C-11	1	U	1	1	865574	3941.631592	
44	128	280-137852-C-12	1	U	1	1	6315	-6.812652	LO
45	129	280-137852-E-13	1	U	1	1	853	-33.235237	LO
46	130	280-137852-B-14	1	U	1	1	11539	18.448099	
47	131	280-137852-E-15	1	U	1	1	975	-32.645939	LO
48	132	280-137852-C-16	1	U	1	1	11626	18.868698	
49	0	Rinse	1	U	1	1	-250	-38.573338	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
51	107	CCV 5000 ppb	1	CCV	1	1	1108307	4981.911621	
52	105	CCVL 1000 ppb	1	CCV	1	1	208366	958.935730	
53	0	CCB	1	U	1	1	219	-36.306847	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
55	133	280-137852-C-17	1	U	1	1	1279	-31.176579	LO
56	134	280-137852-C-18	1	U	1	1	3174	-22.007399	LO
57	135	280-137852-C-19	1	U	1	1	612	-34.402580	LO
58	136	280-137852-C-20	1	U	1	1	824	-33.378120	LO
59	107	LCS	1	U	1	1	1086014	4887.749512	
60	0	MB	1	U	1	1	-40	-37.559425	LO
61	137	280-137852-E-22	1	U	1	1	1238	-31.374920	LO
62	138	ms 280-137852-E-22	1	U	1	1	821131	3747.574951	
63	139	msd 280-137852-E-22	1	U	1	1	834751	3807.164795	
64	140	280-137852-C-21	1	U	1	1	2124	-27.088440	LO
65	0	Rinse	1	U	1	1	-209	-38.378986	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
67	107	CCV 5000 ppb	1	CCV	1	1	1103453	4961.432129	
68	105	CCVL 1000 ppb	1	CCV	1	1	208336	958.793945	
69	0	CCB	1	U	1	1	1539	-29.914818	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	141	280-137852-E-23	1	U	400	1	747693	1369795.625000	
72	142	280-137848-C-1	1	U	5	1	1183332	26483.759766	
73	143	280-137848-C-2	1	U	1	1	665649	3059.959717	
74	144	280-137797-C-1	1	U	2	1	3008794	23965.964844	HI
75	145	280-137797-C-2	1	U	2	1	2997602	23895.378906	HI
76	146	280-137929-a-1 mdlv	1	U	1	1	12200	21.639490	FL
77	147	280-137929-a-2 mdlv	1	U	1	1	13254	26.737499	
78	148	280-137929-a-3 loqv	1	U	1	1	50616	206.898987	
79	149	280-137797-C-1	1	U	4	1	1754585	30361.273438	
80	150	280-137797-C-2	1	U	4	1	1747553	30252.798828	
81	0	Rinse	1	U	1	1	397	-35.443733	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL
83	107	CCV 5000 ppb	1	CCV	1	1	1064551	4796.829590	
84	105	CCVL 1000 ppb	1	CCV	1	1	237209	1094.928833	
85	0	CCB	1	U	1	1	1374	-30.716694	LO
B	0	Read Baseline	1	RB	1	1	0	-37.365150	BL

Nitrate as N:Calibration 1: Peak 5-86

File name: C:\FLOW_4\062820.RST
Date: 28-Jun-20
Operator: svc

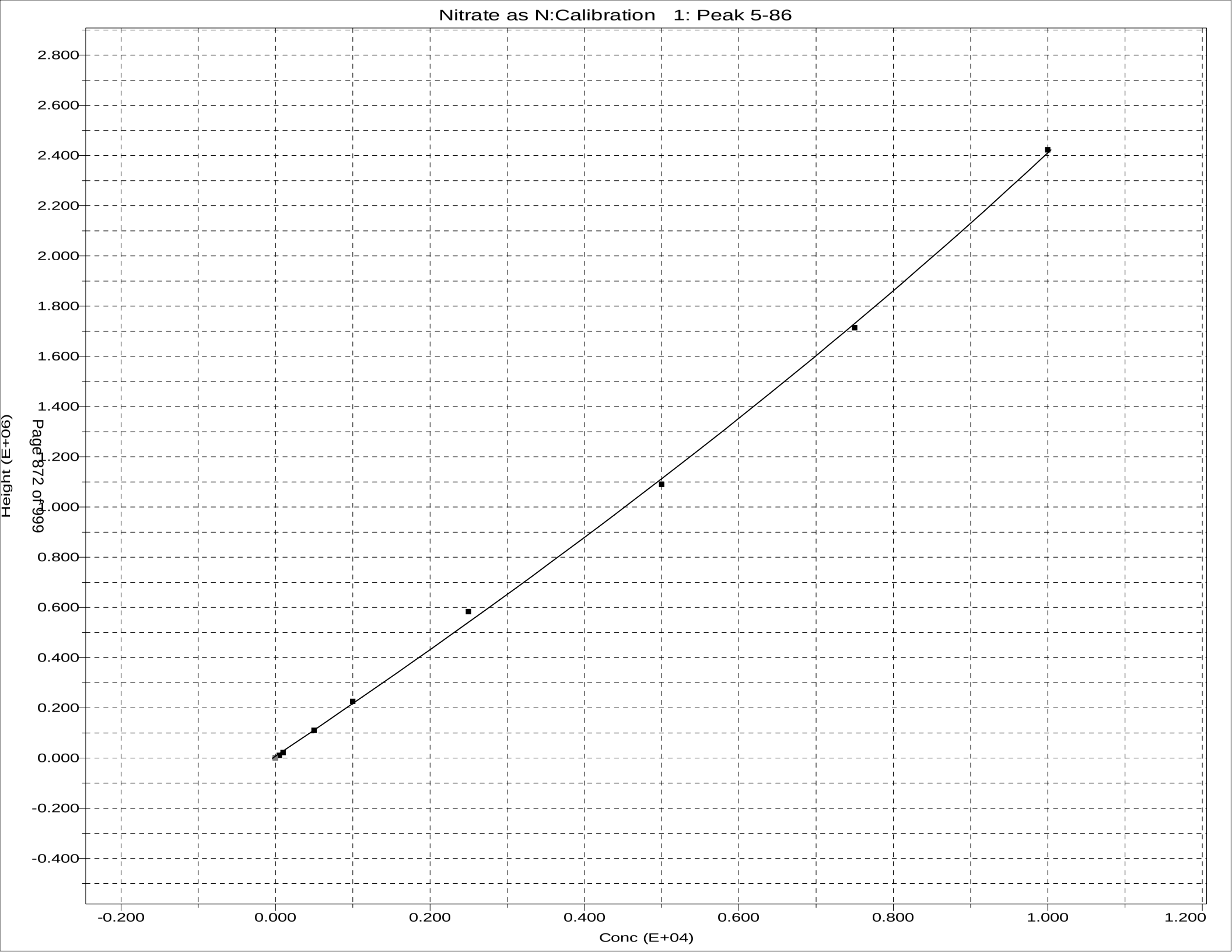
*	Name	Conc	Height
*	Cal 0.00 ppb	0.000000	972.428955
*	Cal 50.0 ppb	50.000000	10312.520508
*	Cal 100 ppb	100.000000	21780.246094
*	Cal 500 ppb	500.000000	110387.109375
*	Cal 1000 ppb	1000.000000	225417.671875
*	Cal 2500 ppb	2500.000000	583222.625000
*	Cal 5000 ppb	5000.000000	1089847.875000
*	Cal 7500 ppb	7500.000000	1714312.375000
*	Cal 10000 ppb	10000.000000	2422867.250000

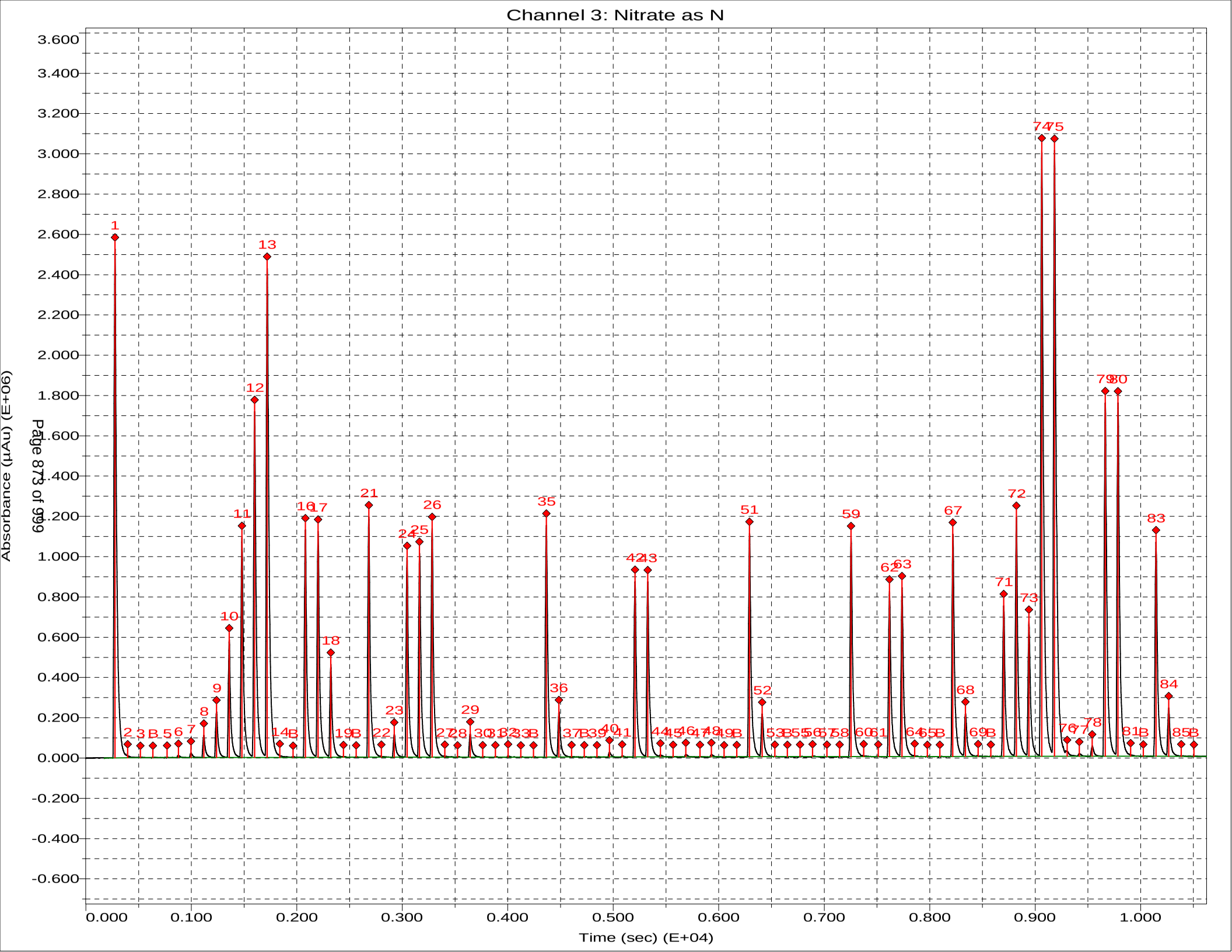
Calib Coef:
x=cyy+by+a
a: (intercept) -3.7365e+01
b: 4.8400e-03
c: -2.8083e-10

Corr Coef: 0.999744

Carryover: 0.327%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-86
Height (E+06)
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 873 of 999

Sample Table - 062820.tbl

File name: C:\FLOW_4\062820.TBL
Date: 28-Jun-20

Cup	Name	Type	R	Dil	Wt	Vial	Comment
109	SYNC	SYNC	1	1	1		
~~0~~	~~Carryover~~	~~CO~~	~~1~~	~~1~~	~~1~~		
0	Carryover	CO	1	1	1		
0	read baseline	RB	1	1	1		
101	Cal 0.00 ppb	C	1	1	1		
102	Cal 50.0 ppb	C	1	1	1		
103	Cal 100 ppb	C	1	1	1		
104	Cal 500 ppb	C	1	1	1		
105	Cal 1000 ppb	C	1	1	1		
106	Cal 2500 ppb	C	1	1	1		
107	Cal 5000 ppb	C	1	1	1		
108	Cal 7500 ppb	C	1	1	1		
109	Cal 10000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
110	5000 PPB NO2	U	1	1	1		
111	ICV 5000 PPB	CCV	1	1	1		
112	ICV 2000 PPB	CCV	1	1	1		
0	ICB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	LCS	U	1	1	1		D#
0	MB	U	1	1	1		
113	280-137720-B-2	U	1	1	1		<2
114	ms 280-137720-B-2	U	1	1	1		<2
115	msd 280-137720-B-2	U	1	1	1		<2
116	280-137720-B-3	U	1	100~~1~~	1		<2
117	280-137720-B-4	U	1	1	1		<2
118	280-137720-B-5	U	1	1	1		<2
119	280-137707-K-2	U	1	1	1		<2
120	280-137707-K-1	U	1	1	1		<2
121	280-137852-C-7	U	1	1	1		<2
122	280-137852-C-8	U	1	1	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
123	280-137852-C-9	U	1	1	1		<2
124	280-137852-B-10	U	1	1	1		<2 sample is brown color
125	280-137852-C-11	U	1	1	1		<2
126	ms 280-137852-C-11	U	1	1	1		<2
127	msd 280-137852-C-11	U	1	1	1		<2
128	280-137852-C-12	U	1	1	1		<2
129	280-137852-E-13	U	1	1	1		<2
130	280-137852-B-14	U	1	1	1		<2
131	280-137852-E-15	U	1	1	1		<2
132	280-137852-C-16	U	1	1	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
133	280-137852-C-17	U	1	1	1		
134	280-137852-C-18	U	1	1	1		<2

Cup	Name	Type	R	Dil	Wt	Vial	Comment
135	280-137852-C-19	U	1	1	1		<2
136	280-137852-C-20	U	1	1	1		<2
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
137	280-137852-~~B~~E-22	U	1	1 ~~200~~ 1	1		<2
~~138~~	~~ms 280-137852-B-21~~	~~U~~	~~1~~	~~1 200 1~~		~~1~~	~~<2~~
139	msd 280-137852-~~B~~E-22	U	1	1 ~~200~~ 1		1	<2
140	280-137852-C-21	U	1	1	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		<2
141	280-137852-~~B~~-23	U	1	400 ~~1~~	1		<2
142	280-137848-C-1	U	1	5 ~~1~~	1		<2
143	280-137848-C-2	U	1	1	1		<2
144	280-137797-C-1	U	1	2 ~~1~~	1		<2
145	280-137797-C-2	U	1	2 ~~1~~	1		<2
146	280-137929-a-1	mdlv U	1	1	1		
147	280-137929-a-2	mdlv U	1	1	1		
148	280-137929-a-3	loqv U	1	1	1		
149	~~a~~ 280-137797-C-1	U	1	4 ~~1~~	1		
150	~~a~~ 280-137797-C-2	U	1	4 ~~1~~	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		

Sulfide by Titration

Analyst:	**SAH**	**SOP Information:**	
Date:	6/22/2020	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_01738
TALS ID	Iod_00257	Prep Date:	6/8/2020
Normality:	0.025	Made By:	SAH
Solution 2:	sodium thiosulfate	Concentration:	1144
TALS ID	Na Thio_00167	Expiration Date:	9/8/2020
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch Ind_00062		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	5.60	20	5.60	1152.000
CAL	5	5.60	11.40	20	5.80	1136.000

ICV Information	
Source/Ver-Lot#:	INT_01685
Prep Date:	6/8/2020
Made By:	SAH
Concentration:	1000
Expiration Date:	9/8/2020

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	11.50	18.90	20	7.40	1008.000
ICV	5	0.00	7.60	20	7.60	992.000

499653

1	0	2.5
2	2.5	3.4
3	3.4	4.4
4	4.4	7.1
5	7.1	10.1
6	10.1	11.1
7	11.1	12.2
8	12.2	13.1
9	13.1	14.1
10	14.1	15.1
11	15.1	16.0
12	16.0	17.0
13	17.0	17.9
14	17.9	18.9
15	18.9	19.9
16	19.9	20.8
17	20.8	21.8
18	21.8	22.7

TALS Raw Data Report

Job Number: 280-137736-1
LIMS Batch: 499653
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-499634/1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	87	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-499634/2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	0.800 J mg/L				
Sulfide as H2S		0.85 mg/L	0.850 J mg/L				

RS# 3 Lab ID: **280-137736-E-9-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	1.9 U mg/L				
Sulfide as H2S		0 mg/L	2.0 U mg/L				

RS# 4 Lab ID: **280-137736-E-9-D MS** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	80	44 110		
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 5 Lab ID: **280-137736-E-9-E MSD** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16 mg/L	mg/L	70	44 110	14	20
Sulfide as H2S		17 mg/L	mg/L				

RS# 6 Lab ID: **280-137736-E-16-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	1.9 U mg/L				
Sulfide as H2S		0 mg/L	2.0 U mg/L				

RS# 7 Lab ID: **280-137736-E-17-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				
Sulfide		-0.8 mg/L	1.9 U mg/L				

RS# 8 Lab ID: **280-137736-E-8-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0.85 mg/L	0.85 J mg/L				
Sulfide		0.8 mg/L	0.80 J mg/L				

RS# 9 Lab ID: **280-137736-E-3-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	2.0 U mg/L				
Sulfide		0 mg/L	1.9 U mg/L				

RS# 10 Lab ID: **280-137736-E-4-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	2.0 U mg/L				
Sulfide		0 mg/L	1.9 U mg/L				

TALS Raw Data Report

RS# 11 Lab ID: **280-137736-E-5-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0.85 mg/L	0.85 J mg/L				
Sulfide		0.8 mg/L	0.80 J mg/L				

RS# 12 Lab ID: **280-137736-E-6-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	2.0 U mg/L				
Sulfide		0 mg/L	1.9 U mg/L				

RS# 18 Lab ID: **280-137736-F-7-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0.85 mg/L	0.85 J mg/L				
Sulfide		0.8 mg/L	0.80 J mg/L				

TALS Raw Data Report

Job Number: 280-137740-1
LIMS Batch: 499653
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-499634/1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	87	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-499634/2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	0.800 J mg/L				
Sulfide as H2S		0.85 mg/L	0.850 J mg/L				

RS# 3 Lab ID: **280-137736-E-9-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 4 Lab ID: **280-137736-E-9-D MS** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	80	44 110		
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 5 Lab ID: **280-137736-E-9-E MSD** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16 mg/L	mg/L	70	44 110	14	20
Sulfide as H2S		17 mg/L	mg/L				

RS# 16 Lab ID: **280-137740-F-1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		999999966 mg/L	0.85 J mg/L				
Sulfide		999999968 mg/L	0.80 J mg/L				

RS# 17 Lab ID: **280-137740-F-2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	mg/L				
Sulfide		0 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-137797-1
LIMS Batch: 499653
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-499634/1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	87	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-499634/2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	0.800 J mg/L				
Sulfide as H2S		0.85 mg/L	0.850 J mg/L				

RS# 3 Lab ID: **280-137736-E-9-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	1.9 U mg/L				
Sulfide as H2S		0 mg/L	2.0 U mg/L				

RS# 4 Lab ID: **280-137736-E-9-D MS** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	80	44 110		
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 5 Lab ID: **280-137736-E-9-E MSD** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16 mg/L	mg/L	70	44 110	14	20
Sulfide as H2S		17 mg/L	mg/L				

RS# 13 Lab ID: **280-137797-E-1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0.85 mg/L	0.85 J mg/L				
Sulfide		0.8 mg/L	0.80 J mg/L				

TALS Raw Data Report

Job Number: 280-137848-1
LIMS Batch: 499653
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-499634/1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	87	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-499634/2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	0.800 J mg/L				
Sulfide as H2S		0.85 mg/L	0.850 J mg/L				

RS# 3 Lab ID: **280-137736-E-9-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	1.9 U mg/L				
Sulfide as H2S		0 mg/L	2.0 U mg/L				

RS# 4 Lab ID: **280-137736-E-9-D MS** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	80	44 110		
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 5 Lab ID: **280-137736-E-9-E MSD** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16 mg/L	mg/L	70	44 110	14	20
Sulfide as H2S		17 mg/L	mg/L				

RS# 14 Lab ID: **280-137848-E-1-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	2.0 U mg/L				
Sulfide		0 mg/L	1.9 U mg/L				

RS# 15 Lab ID: **280-137848-E-2-A** Inj Date: 6/22/2020 12:04:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide as H2S		0 mg/L	2.0 U mg/L				
Sulfide		0 mg/L	1.9 U mg/L				

TestAmerica *Denver*

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Titration Data Review Checklist

LIMS Batch Number: 499653	**Method (circle one):**	**QC Type (circle):**
Analyst/1st Reviewer: SAH **Date:** 06/25/2020	**2310B 2320B 2340C** **4500 S2 F 4500 SO3 B 9030B/9034**	**Standard DoD QAPP Other**
Matrix (circle): **Water Solid**	**Automated or Manual (circle one)**	**Instrument ID (circle one if applicable):** **AT2 AT3**

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	280-137736-7 only had unpres. bottle. preserved at benchtop & NCM
2. For samples requiring pH adjustment is the amount of acid/base used documented?	N/A		✓	If no, list details: 280-137736-7 → 1ML Zn acetate 50% NaOH
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	N/A		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	N/A		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	N/A		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	N/A		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	✓		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	☐ No analyte > ½ RL in associated samples ☐ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	N/A		✓	☐ No analyte > RL in associated samples ☐ Sample results >10x blank ☐ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	☐ Non-conformance (NCM) added ☐ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	N/A		✓	☐ Non-conformance (NCM) added ☐ Sample results ND or <2X RL

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
16. Are all MS/MSD RPDs <50%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation.	✓		✓	□ Non-conformance (NCM) added
D. Raw Data & TALS Data Entry				
17. Raw Data	✓			
a. Unused data is clearly identified with reason	✓		✓	
b. All crossed out data is initialed and dated	✓		✓	
c. Out of control QC is clearly identified	✓		✓	
d. Any data that has a qualifier is commented on with appropriate action taken	✓		✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	✓		✓	
f. 100% of manual calculations are verified.	✓		✓	
18. TALS Samples Tab	✓			
a. LIMS Sample IDs / Containers are correct	✓		✓	
b. Method and matrix are correct	✓		✓	
c. Date and time match raw data	✓		✓	
d. Dilutions are correct	✓		✓	
e. Correct suffix designated (where applicable)	✓		✓	
19. TALS Worksheet Tab is complete and correct	✓		✓	
20. TALS Reagent Tab is complete and correct	✓		✓	
21. TALS QC Links Tab is correct	✓		✓	
22. TALS Sample Results Tab	✓			
a. All unused data are marked Rejected or Accepted	✓		✓	
b. All reported analytes are marked Primary or Secondary	✓		✓	
c. Data manually transcribed from benchsheet into TALS verified 100% including significant figures SM 4500 SO3 B).	✓		✓	
d. TALS Batch Information Screen documentation is complete	✓		✓	
e. TALS Status set to appropriate review level	✓		✓	
E. Final Report and NCMs (2nd level review only)				
f. Were all job/project requirements met?			✓	
g. Results for samples and QC correct on final report?			✓	
h. Are all necessary scanned documents in TALS?			✓	
i. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?			✓	

Comments: _____

2nd Reviewer: SAH **Review Date:** 06/25/2020

6.25.2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1032				
Lims ID:	STD1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	01-Jul-2020 10:15:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-002				
Misc. Info.:	280-0092933-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:35	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				
First Level Reviewer: pedrickj		Date:	01-Jul-2020 12:11:27		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.292	3.313	-0.021	961467	0.2000	0.2682	
2 Chloride	4.447	4.465	-0.018	3076322	1.00	1.21	
3 Nitrite as N	5.125	5.140	-0.015	1030500	NC	NC	
4 Bromide	6.163	6.183	-0.020	237785	0.2000	0.2286	
5 Nitrate as N	6.925	6.917	0.008	1326057	NC	NC	
6 Orthophosphate as P	9.302	9.300	0.002	1786218	NC	NC	M
7 Sulfate	10.555	10.580	-0.025	2142172	1.00	1.28	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

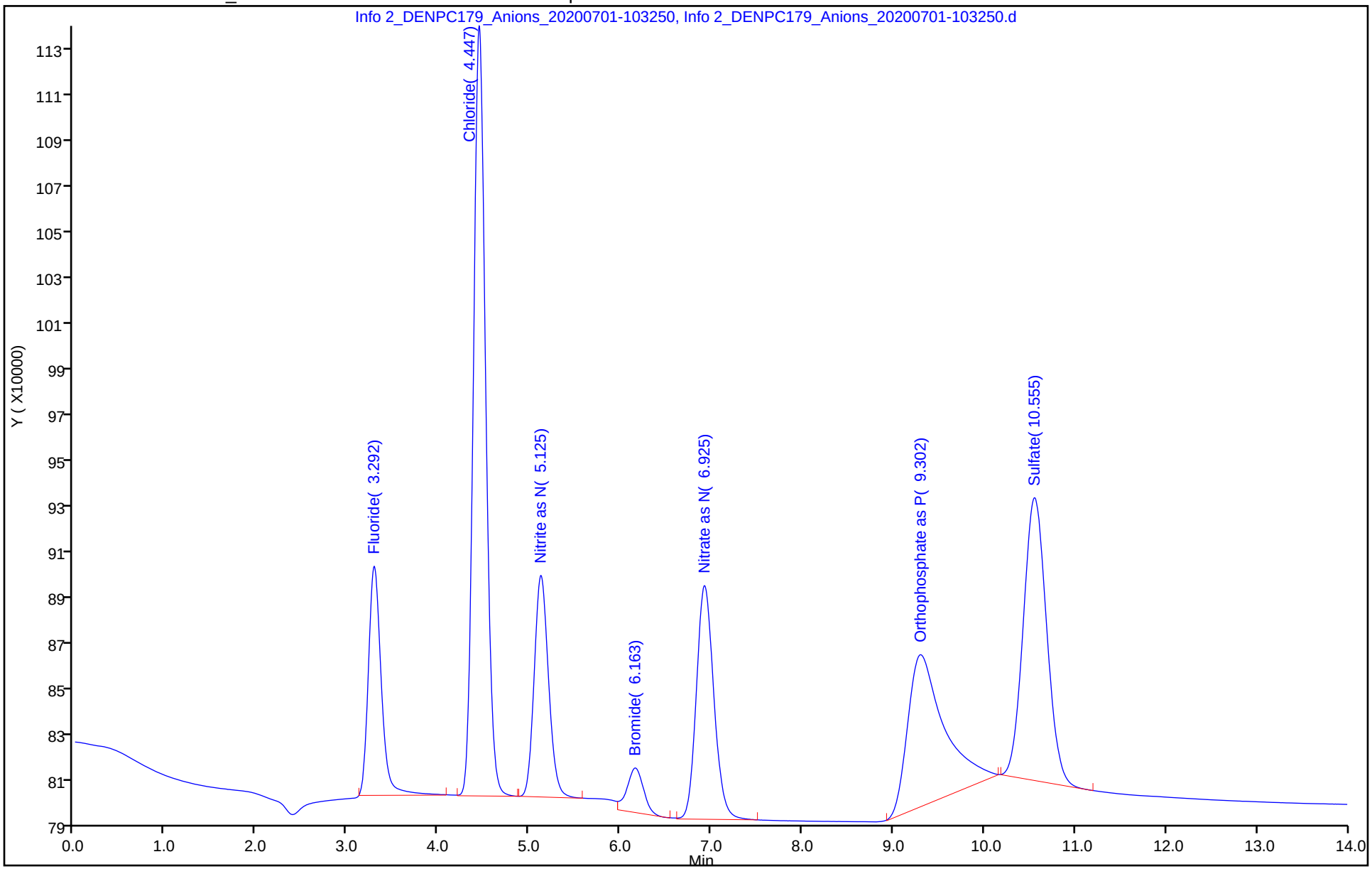
Reagents:

IC Cal low_00531	Amount Added:	0.04	Units: mL
IC CAL cl/so4_00317	Amount Added:	0.04	Units: mL

Report Date: 02-Jul-2020 08:53:35 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-103250.d				
Injection Date:	01-Jul-2020 10:15:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD1			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

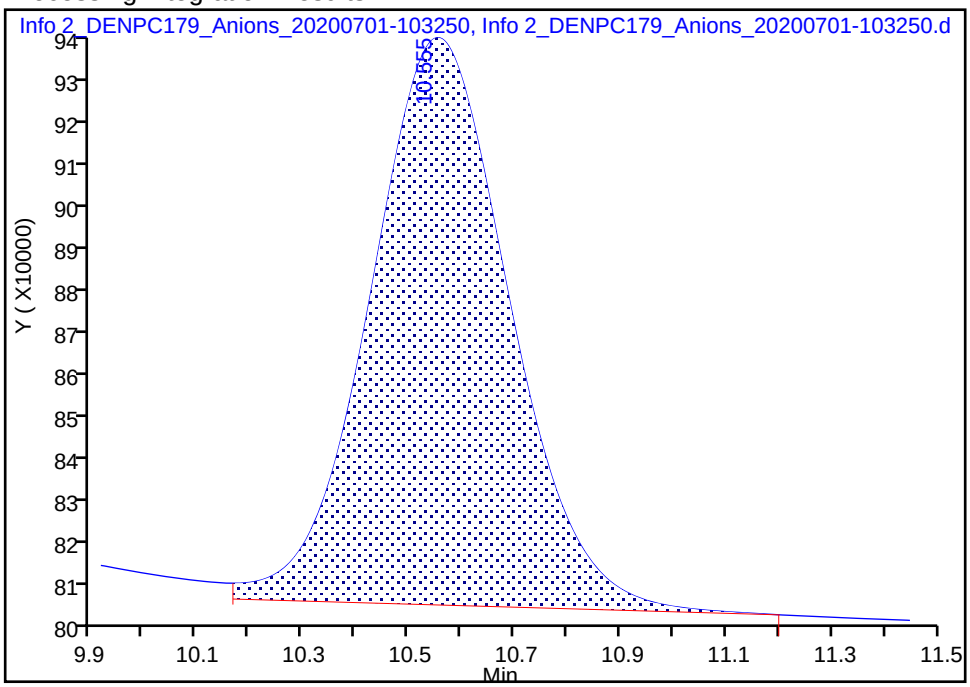
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1032				
Injection Date:	01-Jul-2020 10:15:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD1				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

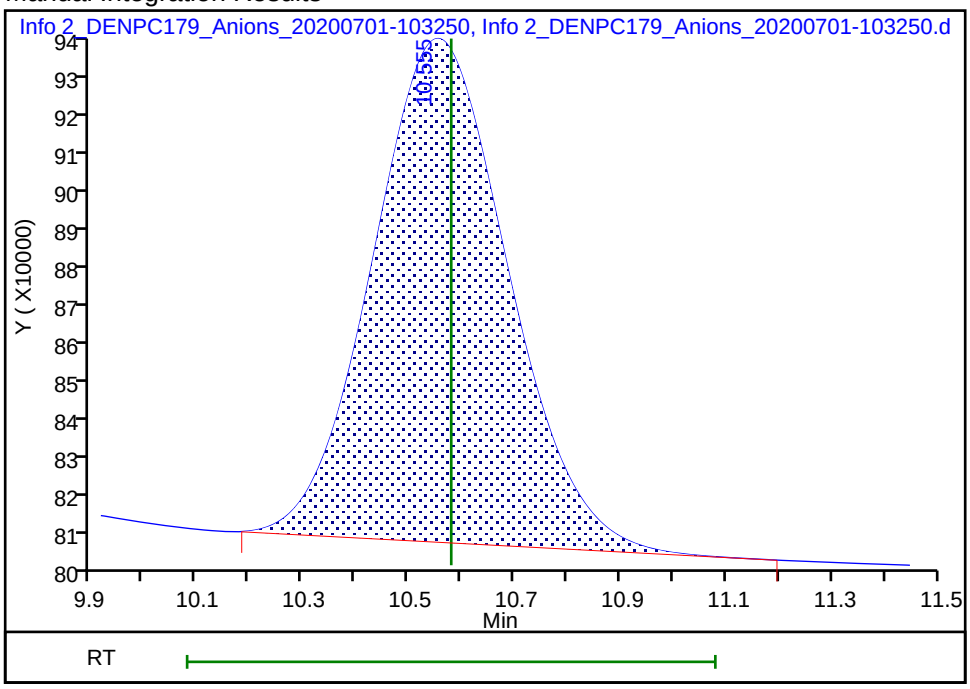
Processing Integration Results

RT: 10.56
Area: 2248764
Amount: 1.241876
Amount Units: ug/ml



Manual Integration Results

RT: 10.56
Area: 2142172
Amount: 1.276357
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:11:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1050
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-Jul-2020 10:32:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092933-003
Misc. Info.: 280-0092933-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jul-2020 08:53:35 Calib Date: 01-Jul-2020 11:42:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200

Column 1 : Det: Info 2_091554_1
Process Host: CTX1013

First Level Reviewer: pedrickj Date: 01-Jul-2020 12:11:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.293	3.313	-0.020	2371067	0.5000	0.3883	
2 Chloride	4.447	4.465	-0.018	7979140	2.50	2.30	
3 Nitrite as N	5.125	5.140	-0.015	2701908	NC	NC	
4 Bromide	6.165	6.183	-0.018	569883	0.5000	0.4653	
5 Nitrate as N	6.917	6.917	0.000	3411313	NC	NC	
6 Orthophosphate as P	9.287	9.300	-0.013	3393209	NC	NC	M
7 Sulfate	10.548	10.580	-0.032	5381010	2.50	2.25	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

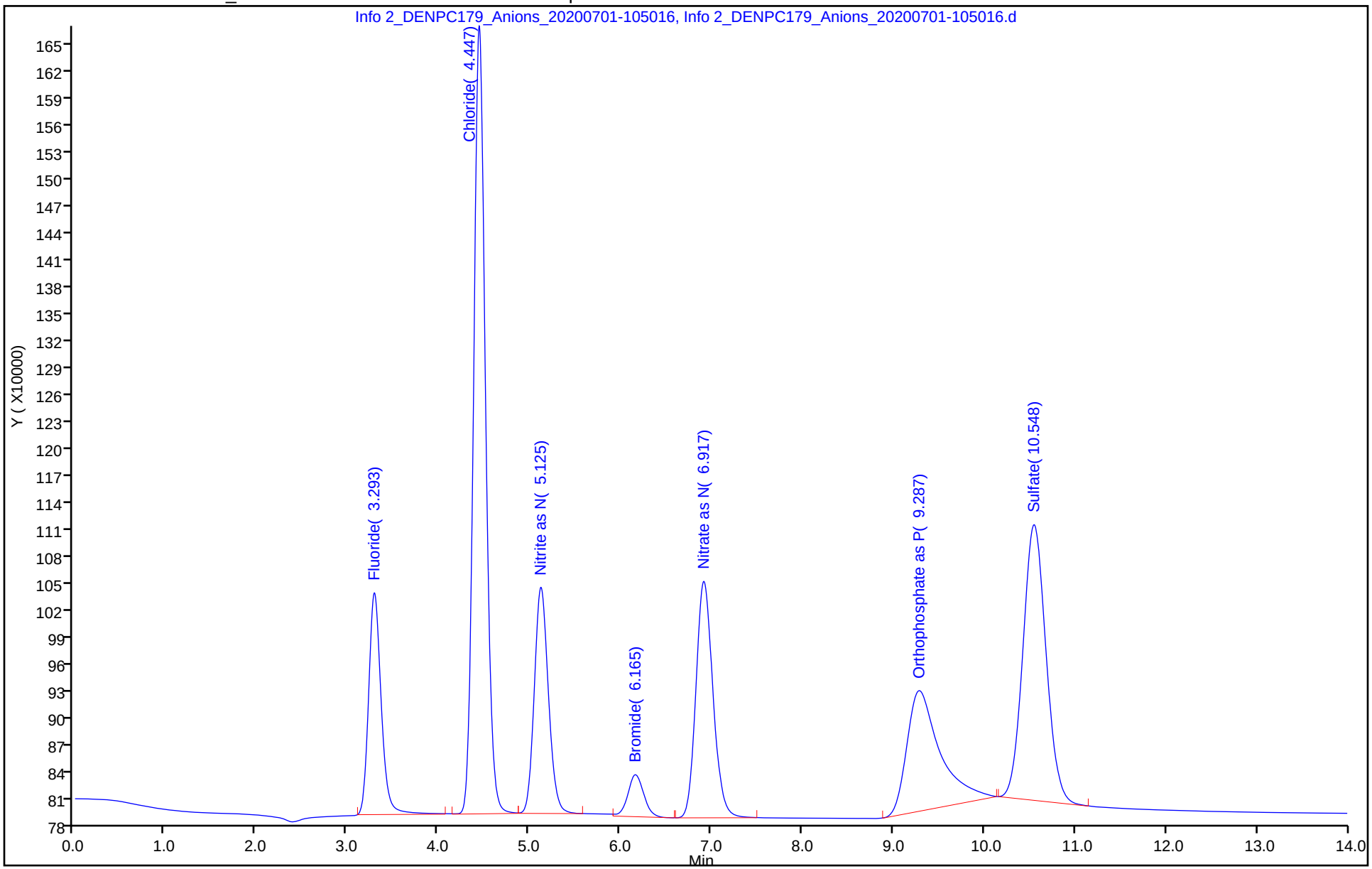
Reagents:

IC Cal low_00531 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00317 Amount Added: 0.10 Units: mL

Report Date: 02-Jul-2020 08:53:36 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105016.d				
Injection Date:	01-Jul-2020 10:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD2			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

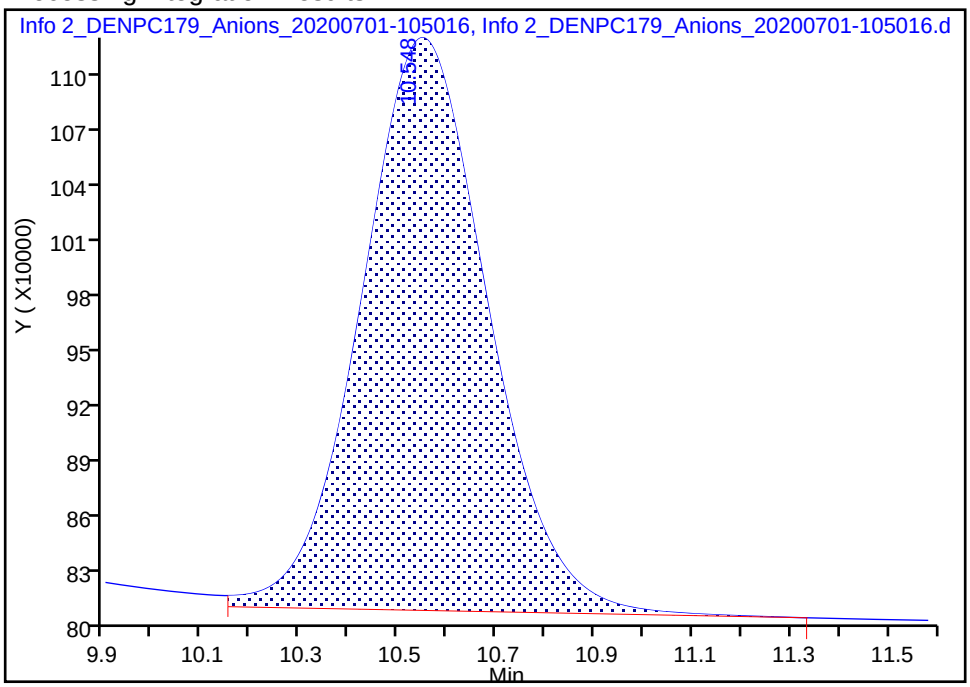
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105				
Injection Date:	01-Jul-2020 10:32:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD2				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

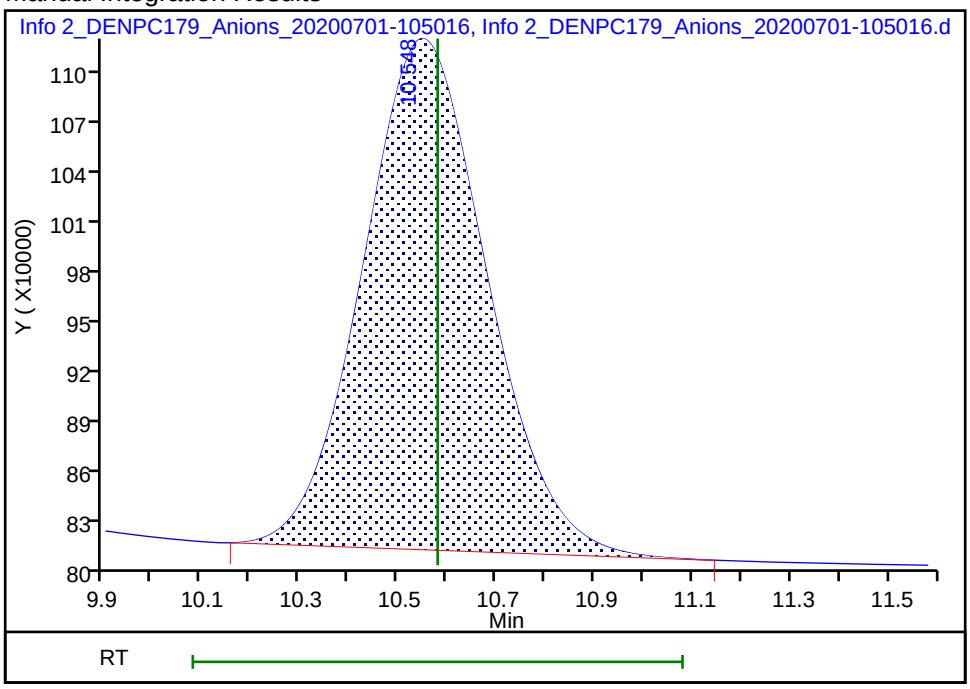
Processing Integration Results

RT: 10.55
Area: 5581097
Amount: 2.251973
Amount Units: ug/ml



Manual Integration Results

RT: 10.55
Area: 5381010
Amount: 2.254206
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:11:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1107				
Lims ID:	STD3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	01-Jul-2020 10:50:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-004				
Misc. Info.:	280-0092933-004				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:36	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				
First Level Reviewer: pedrickj		Date:	01-Jul-2020 12:11:48		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.297	3.313	-0.016	6181090	1.00	0.7129	
2 Chloride	4.445	4.465	-0.020	16448884	5.00	4.20	
3 Nitrite as N	5.122	5.140	-0.018	6222745	NC	NC	
4 Bromide	6.160	6.183	-0.023	1237161	1.00	0.9411	
5 Nitrate as N	6.905	6.917	-0.012	7034872	NC	NC	
6 Orthophosphate as P	9.265	9.300	-0.035	9349399	NC	NC	M
7 Sulfate	10.545	10.580	-0.035	11019361	5.00	3.96	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

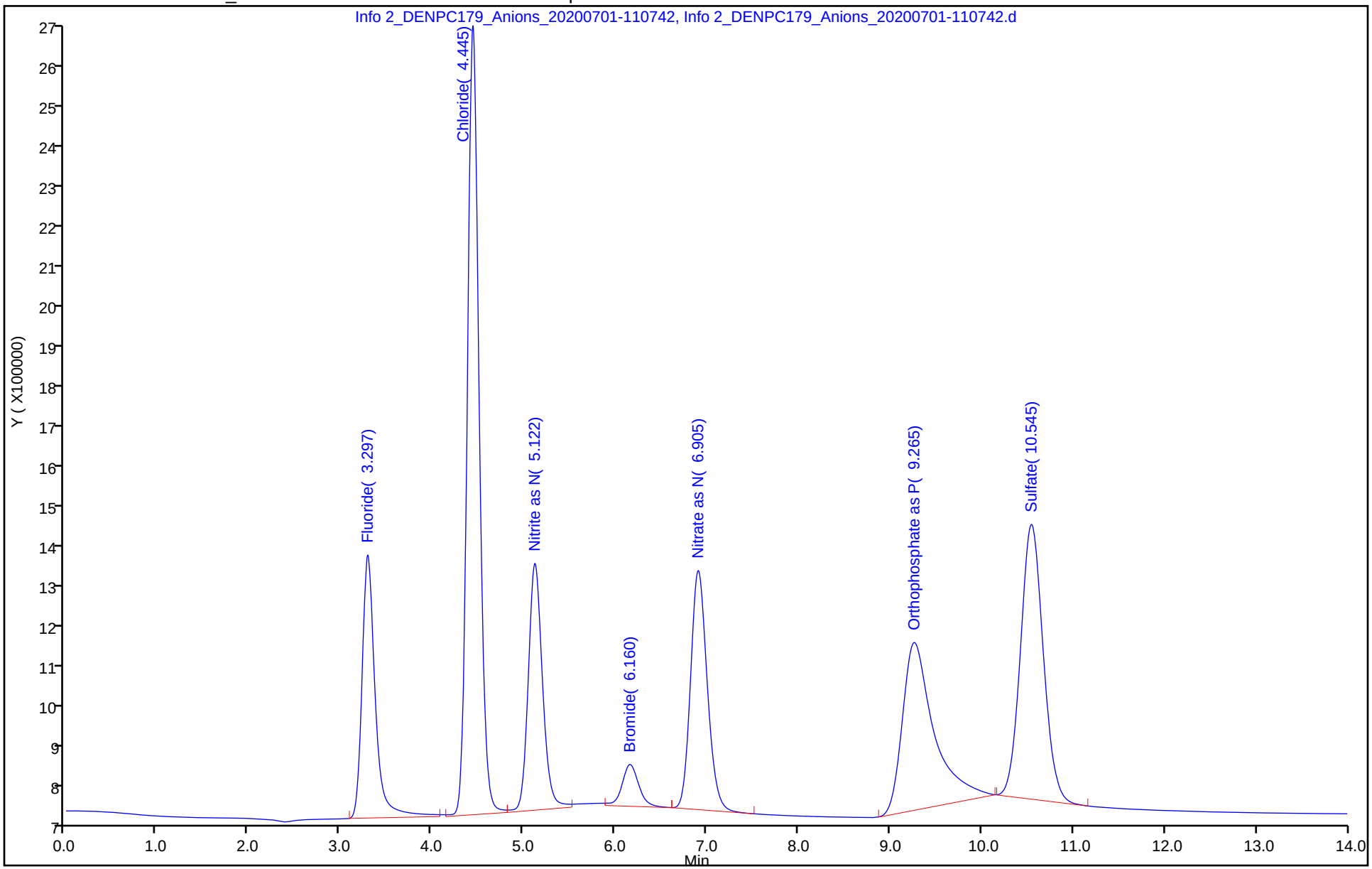
Reagents:

IC Cal low_00531	Amount Added:	0.20	Units: mL
IC CAL cl/so4_00317	Amount Added:	0.20	Units: mL

Report Date: 02-Jul-2020 08:53:36 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-110742.d				
Injection Date:	01-Jul-2020 10:50:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD3			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

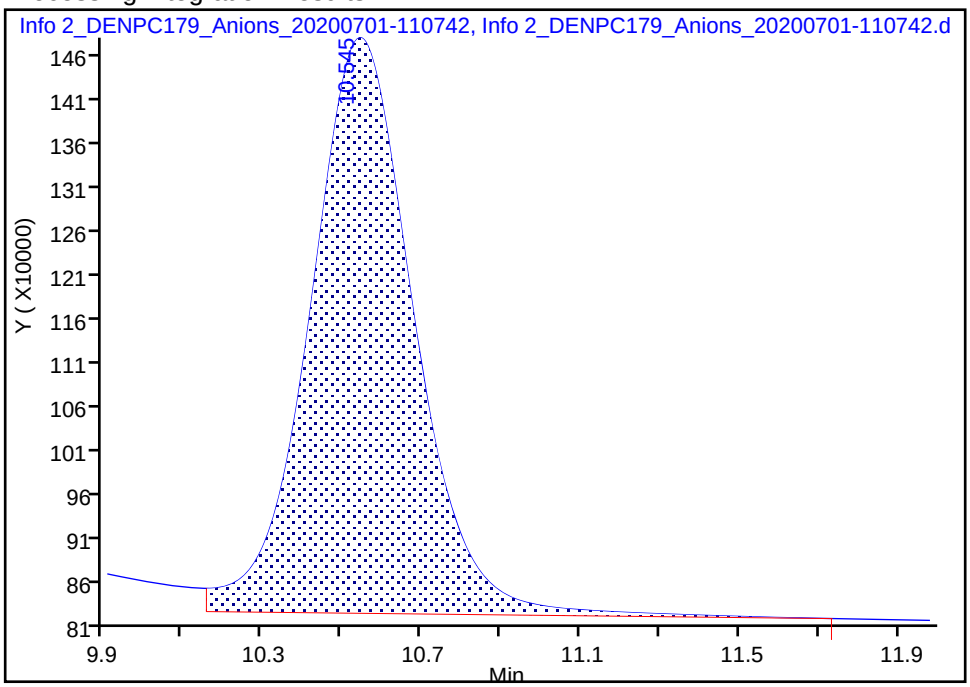
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1107				
Injection Date:	01-Jul-2020 10:50:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD3				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

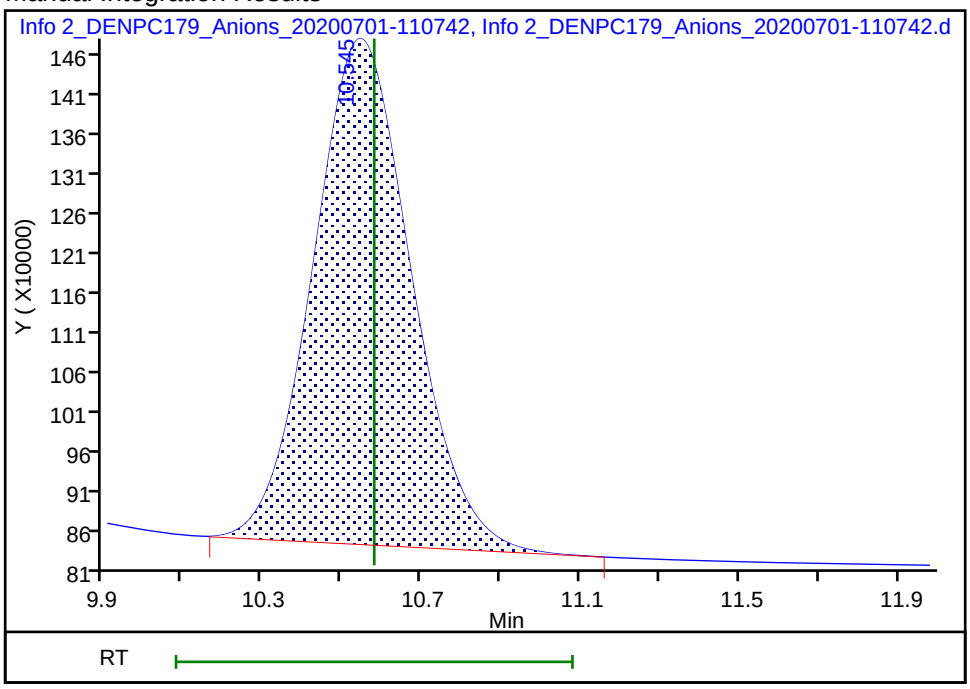
Processing Integration Results

RT: 10.55
Area: 12034904
Amount: 4.184078
Amount Units: ug/ml



Manual Integration Results

RT: 10.55
Area: 11019361
Amount: 3.956501
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:11:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1125				
Lims ID:	STD4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	01-Jul-2020 11:07:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-005				
Misc. Info.:	280-0092933-005				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:36	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				
First Level Reviewer: pedrickj		Date:	01-Jul-2020 12:10:45		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.315	3.315	0.000	54394640	4.00	4.82	M
2 Chloride	4.458	4.458	0.000	269717419	60.0	60.8	M
3 Nitrite as N	5.133	5.133	0.000	33763500	NC	NC	
4 Bromide	6.175	6.175	0.000	5246989	4.00	3.80	
5 Nitrate as N	6.907	6.907	0.000	37998018	NC	NC	
6 Orthophosphate as P	9.288	9.288	0.000	31692928	NC	NC	M
7 Sulfate	10.568	10.568	0.000	198877200	60.0	60.7	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

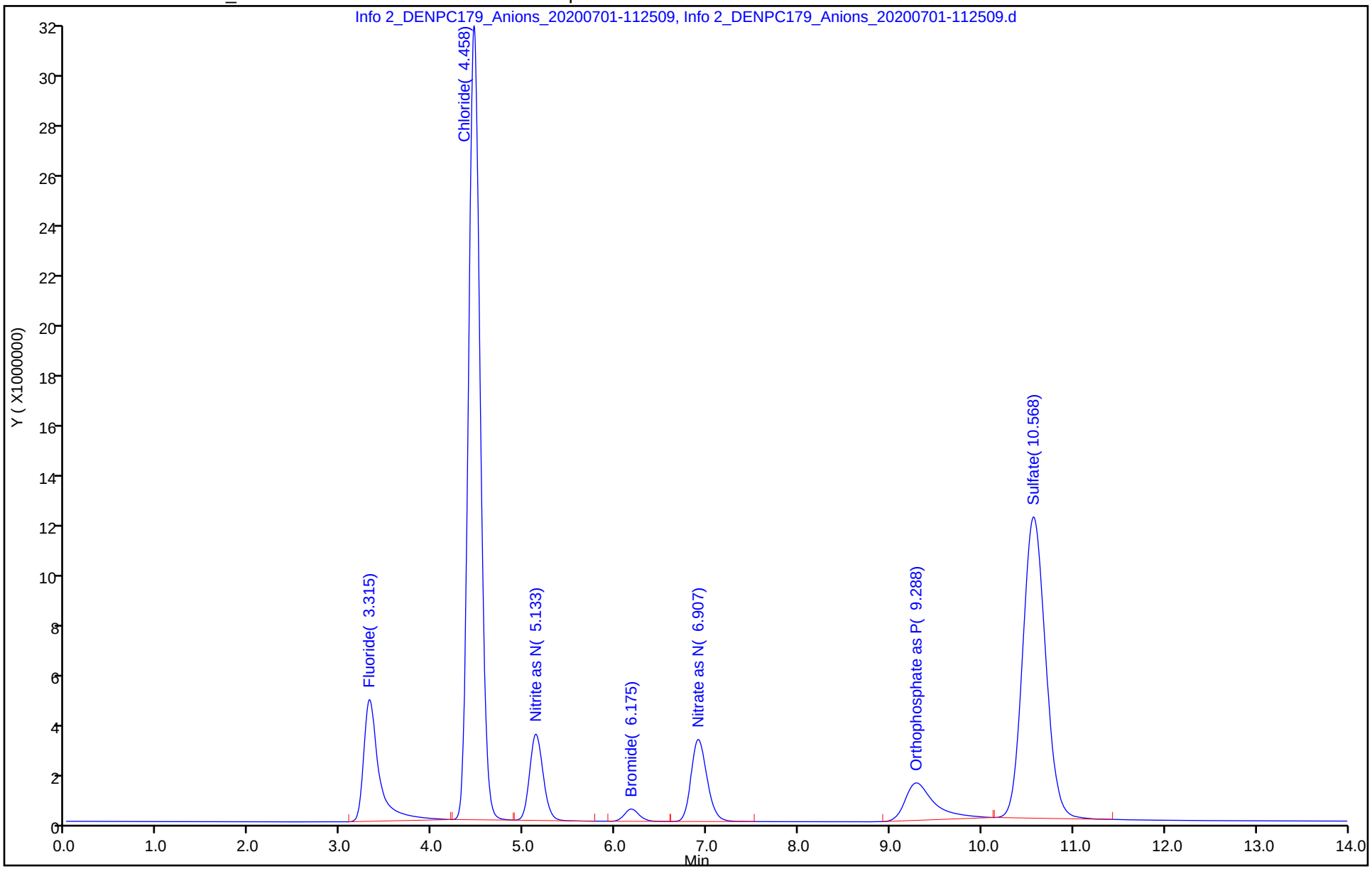
Reagents:

IC Cal low_00531	Amount Added:	0.80	Units: mL
IC CAL cl/so4_00317	Amount Added:	2.40	Units: mL

Report Date: 02-Jul-2020 08:53:37 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-112509.d				
Injection Date:	01-Jul-2020 11:07:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD4			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

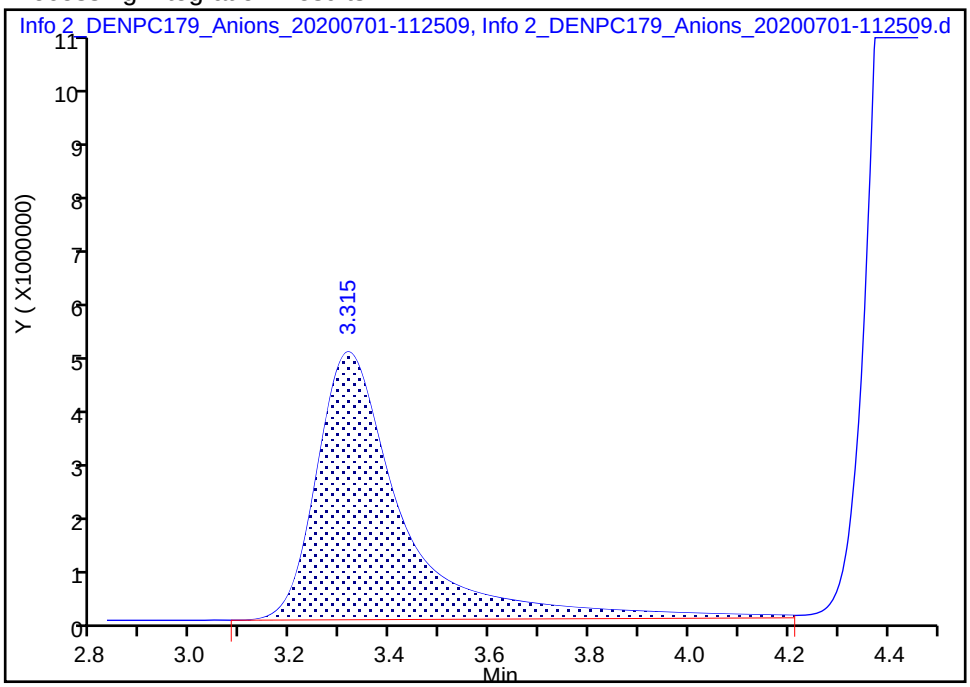
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1125				
Injection Date:	01-Jul-2020 11:07:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD4				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

1 Fluoride, CAS: 16984-48-8

Signal: 1

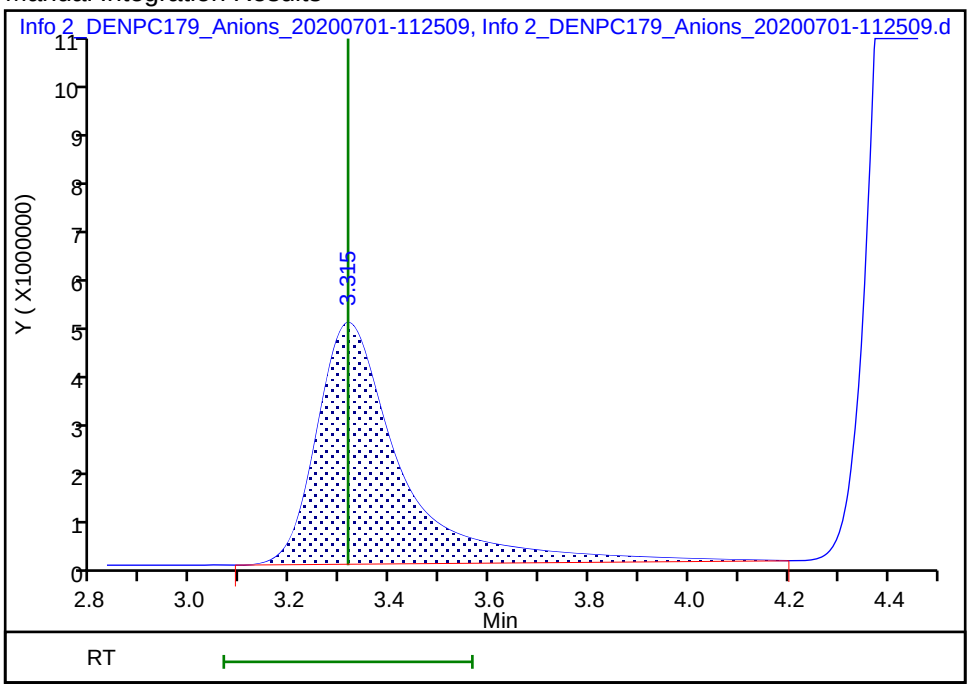
Processing Integration Results

RT: 3.32
Area: 55799362
Amount: 4.915252
Amount Units: ug/ml



Manual Integration Results

RT: 3.32
Area: 54394640
Amount: 4.820411
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

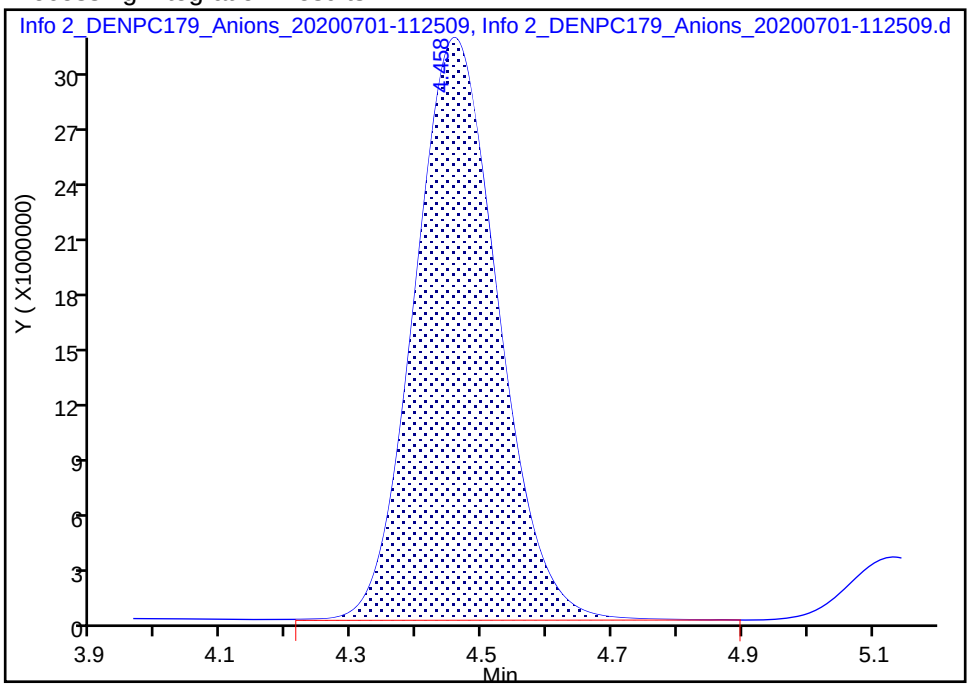
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1125				
Injection Date:	01-Jul-2020 11:07:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD4				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

2 Chloride, CAS: 16887-00-6

Signal: 1

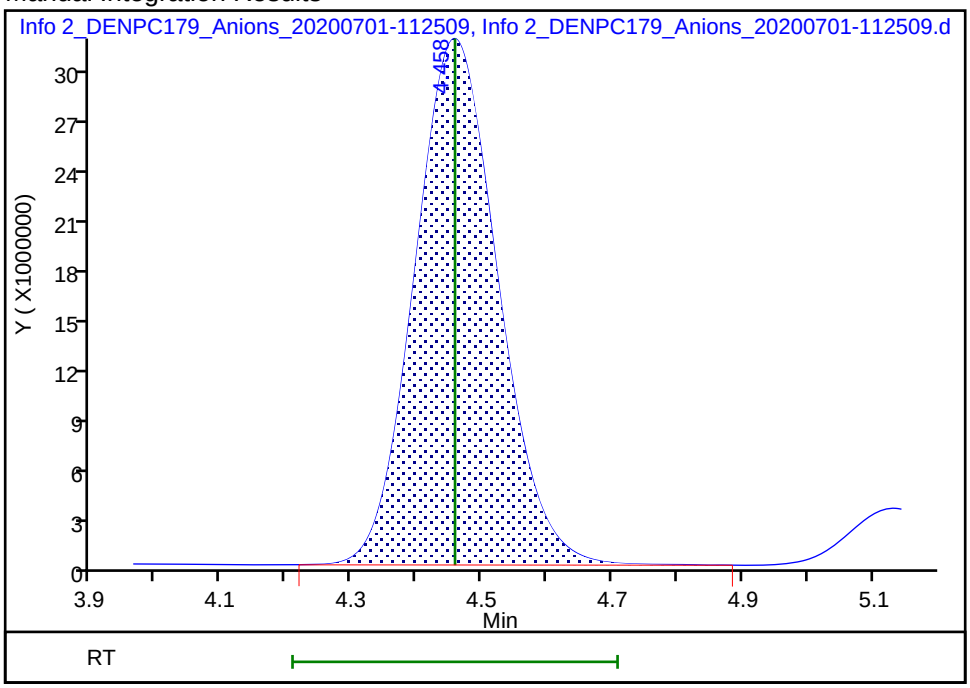
Processing Integration Results

RT: 4.46
Area: 270579345
Amount: 60.964435
Amount Units: ug/ml



Manual Integration Results

RT: 4.46
Area: 269717419
Amount: 60.802033
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

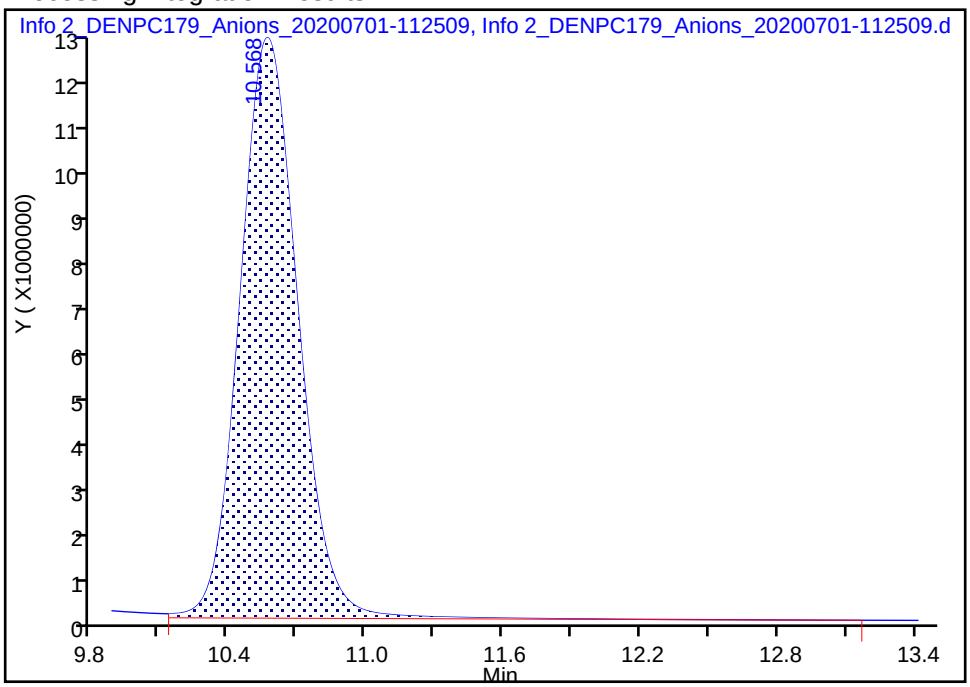
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1125				
Injection Date:	01-Jul-2020 11:07:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD4				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

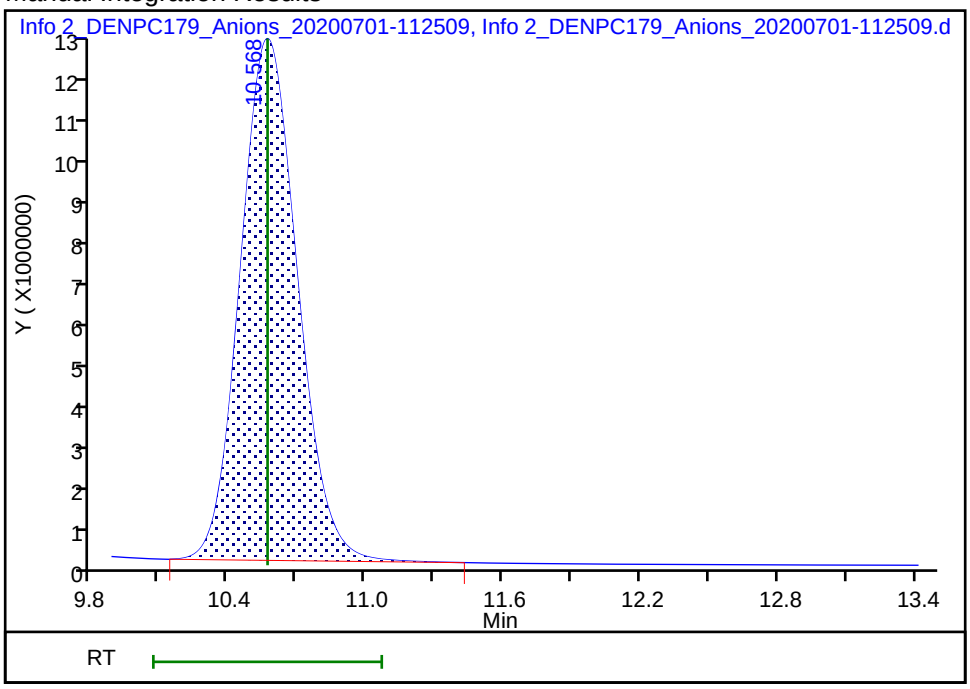
Processing Integration Results

RT: 10.57
Area: 203629596
Amount: 61.155801
Amount Units: ug/ml



Manual Integration Results

RT: 10.57
Area: 198877200
Amount: 60.673333
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:12:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1142				
Lims ID:	STD5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	01-Jul-2020 11:25:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-006				
Misc. Info.:	280-0092933-006				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:37	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				
First Level Reviewer: pedrickj		Date:	01-Jul-2020 12:10:33		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.315	3.315	0.000	97908249	8.00	8.53	M
2 Chloride	4.462	4.458	0.004	559094029	120.0	125.5	M
3 Nitrite as N	5.128	5.133	-0.005	74988454	NC	NC	
4 Bromide	6.170	6.175	-0.005	11644065	8.00	8.36	
5 Nitrate as N	6.892	6.907	-0.015	83764745	NC	NC	
6 Orthophosphate as P	9.270	9.288	-0.018	55460901	NC	NC	M
7 Sulfate	10.548	10.568	-0.020	413006715	120.0	125.3	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

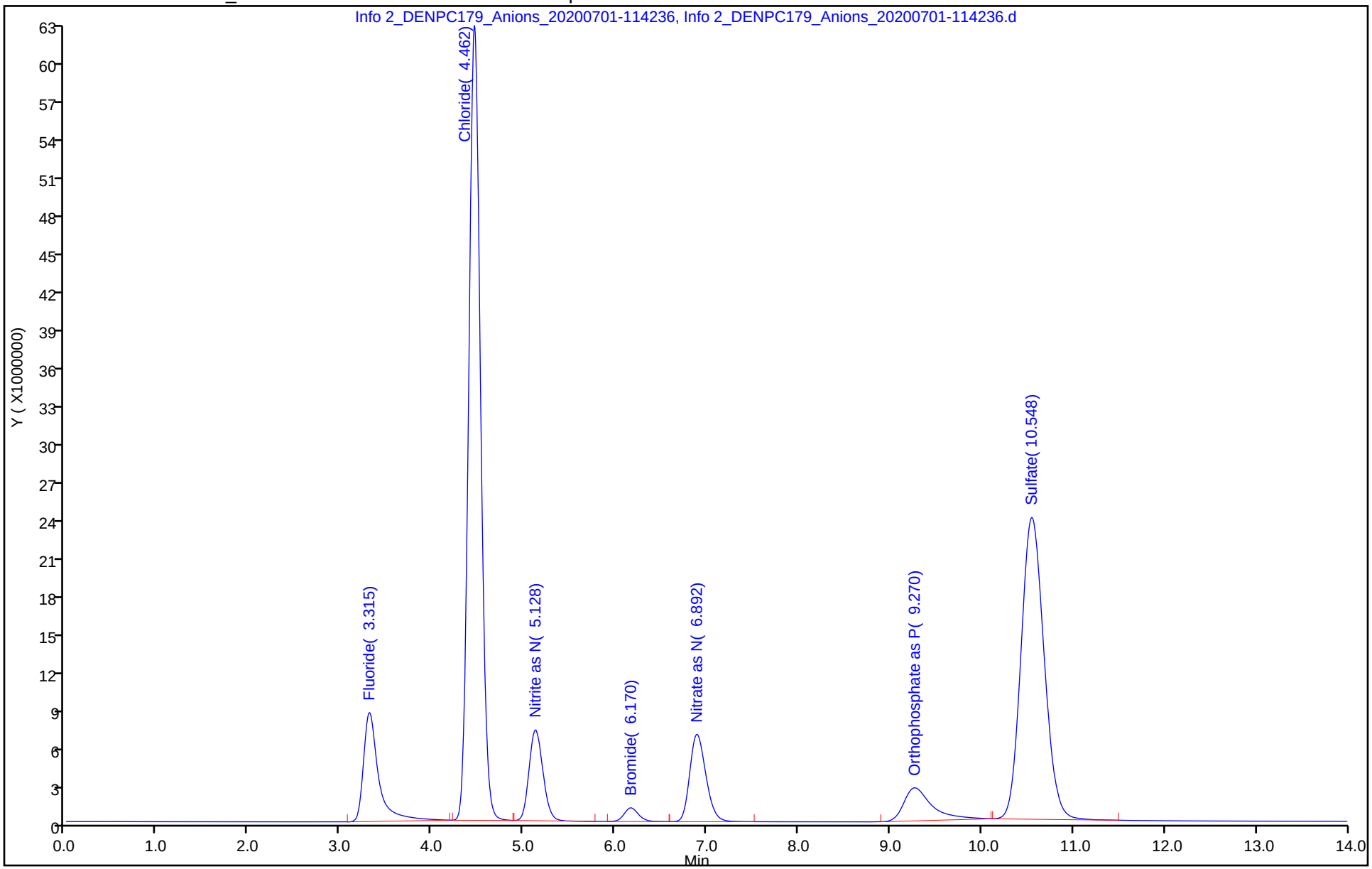
Reagents:

IC Cal low_00531	Amount Added:	1.60	Units: mL
IC CAL cl/so4_00317	Amount Added:	4.80	Units: mL

Report Date: 02-Jul-2020 08:53:37 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-114236.d				
Injection Date:	01-Jul-2020 11:25:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD5			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

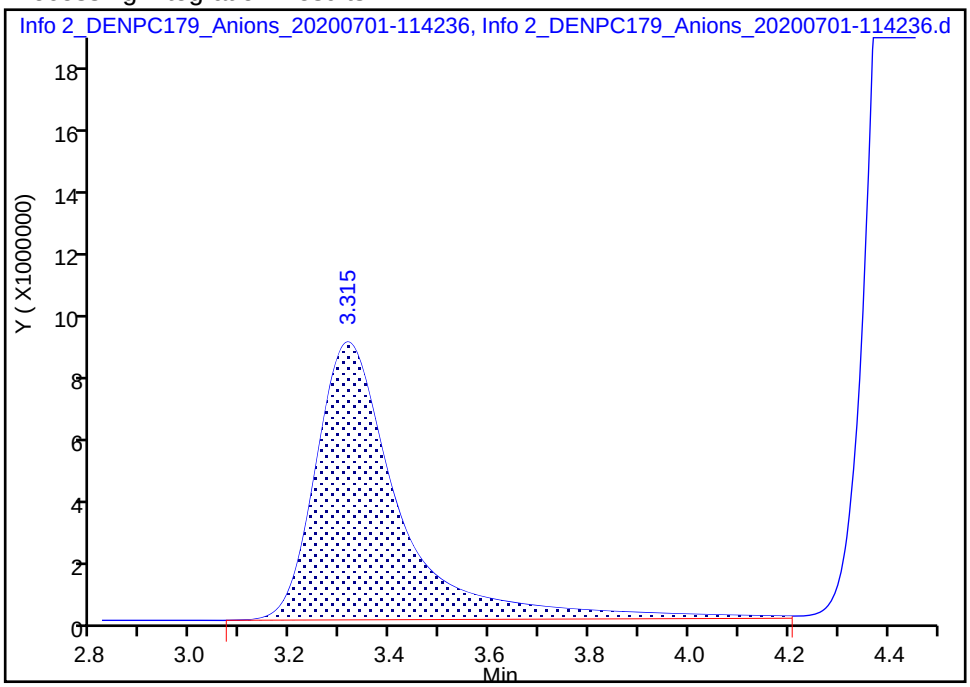
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1142				
Injection Date:	01-Jul-2020 11:25:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD5				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

1 Fluoride, CAS: 16984-48-8

Signal: 1

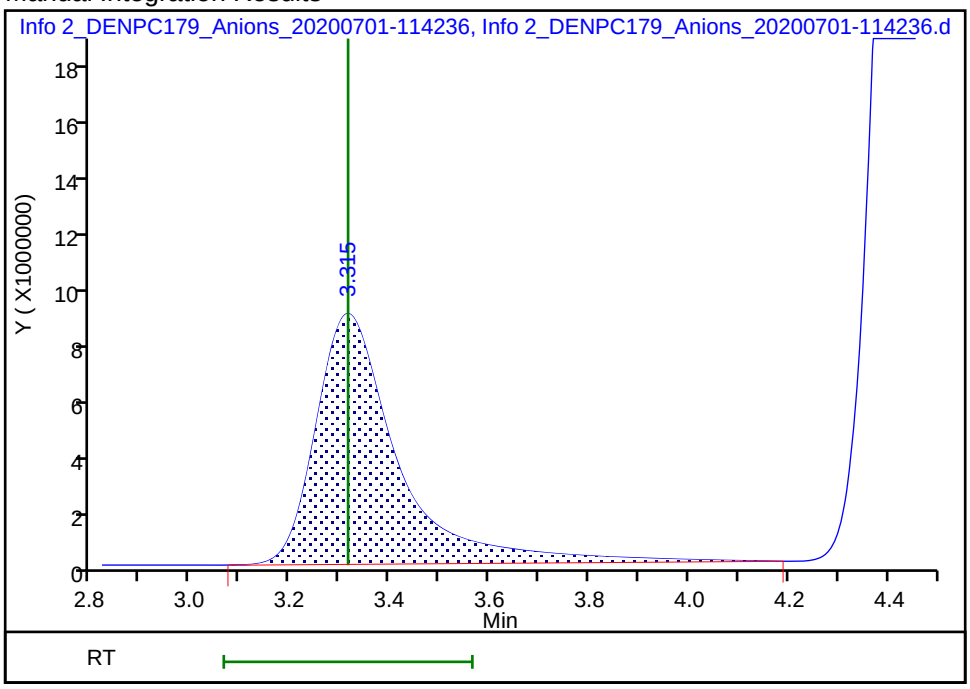
Processing Integration Results

RT: 3.32
Area: 99908376
Amount: 8.589030
Amount Units: ug/ml



Manual Integration Results

RT: 3.32
Area: 97908249
Amount: 8.527507
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

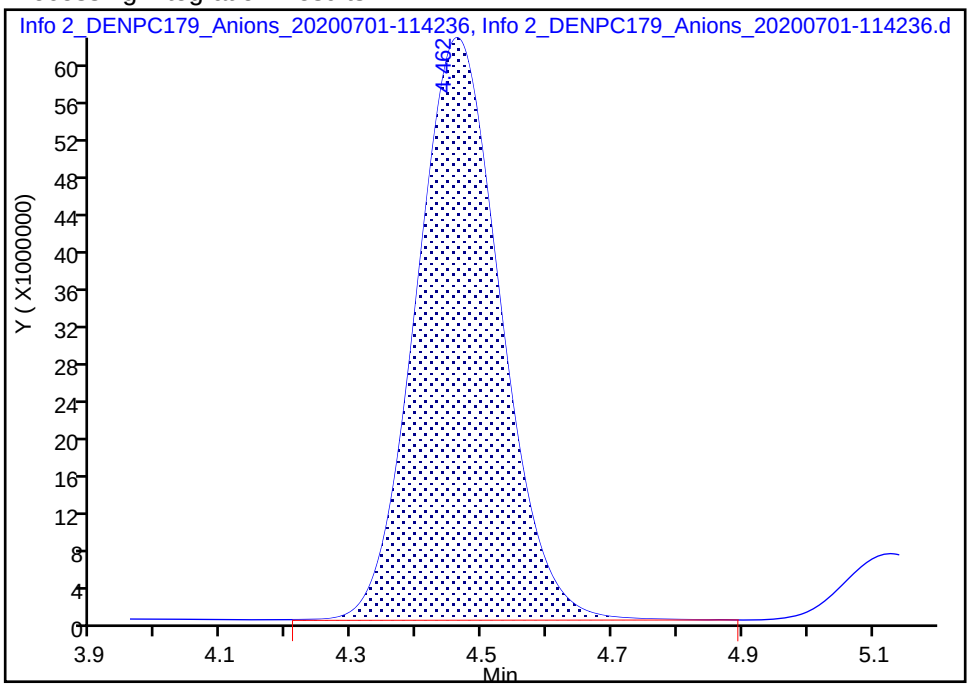
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1142				
Injection Date:	01-Jul-2020 11:25:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD5				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

2 Chloride, CAS: 16887-00-6

Signal: 1

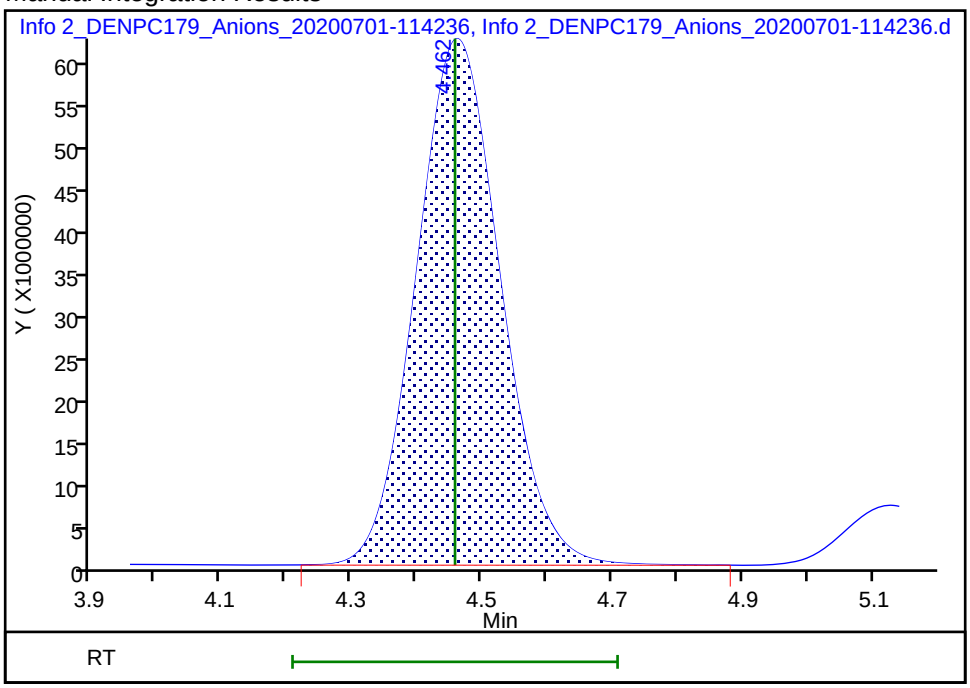
Processing Integration Results

RT: 4.46
Area: 560218648
Amount: 125.5846
Amount Units: ug/ml



Manual Integration Results

RT: 4.46
Area: 559094029
Amount: 125.4777
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

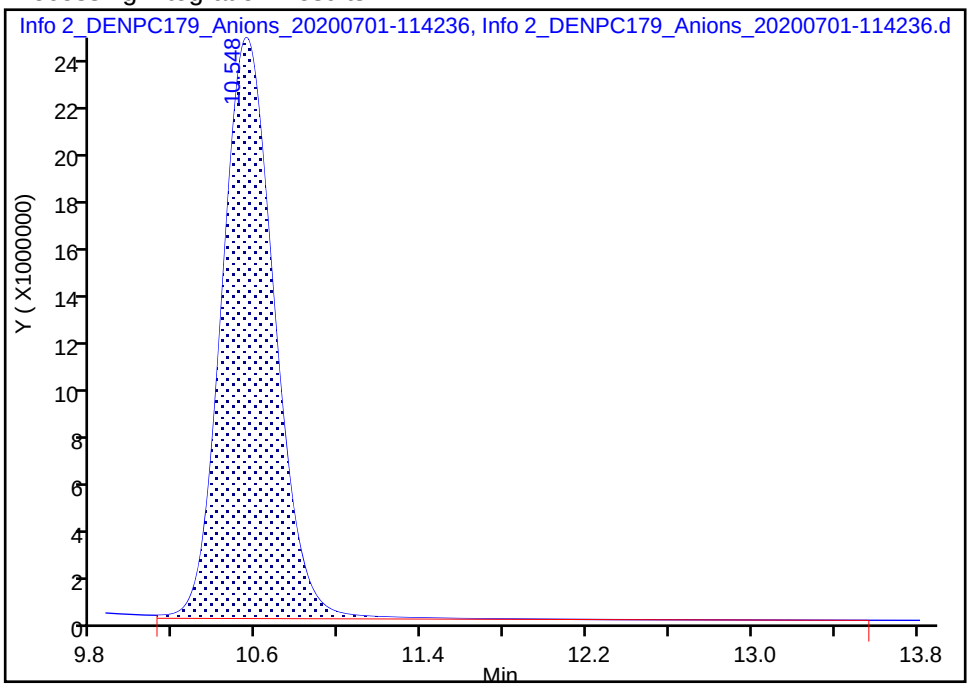
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1142				
Injection Date:	01-Jul-2020 11:25:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD5				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

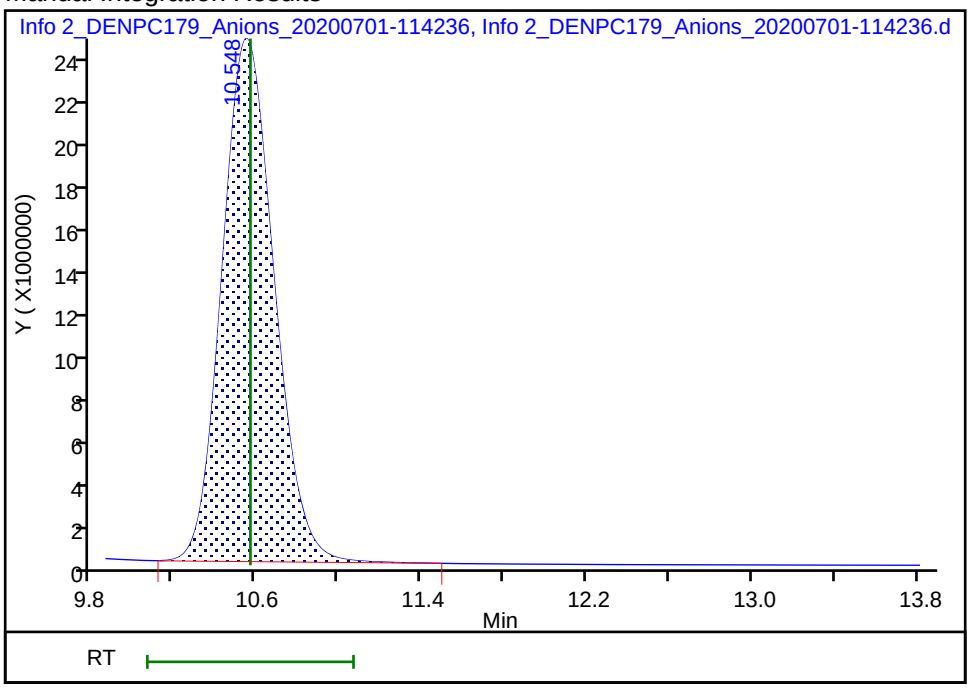
Processing Integration Results

RT: 10.55
Area: 420129486
Amount: 125.9480
Amount Units: ug/ml



Manual Integration Results

RT: 10.55
Area: 413006715
Amount: 125.3219
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:12:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Lims ID:	STD6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	01-Jul-2020 11:42:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-007				
Misc. Info.:	280-0092933-007				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:37	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				
First Level Reviewer: pedrickj		Date:	01-Jul-2020 12:10:21		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.313	3.315	-0.002	103250376	10.0	8.98	M
2 Chloride	4.468	4.458	0.010	867974360	200.0	194.5	M
3 Nitrite as N	5.127	5.133	-0.006	87252262	NC	NC	
4 Bromide	6.165	6.175	-0.010	13808743	10.0	9.90	
5 Nitrate as N	6.885	6.907	-0.022	98843744	NC	NC	
6 Orthophosphate as P	9.257	9.288	-0.031	62209329	NC	NC	M
7 Sulfate	10.538	10.568	-0.030	643853306	200.0	195.0	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

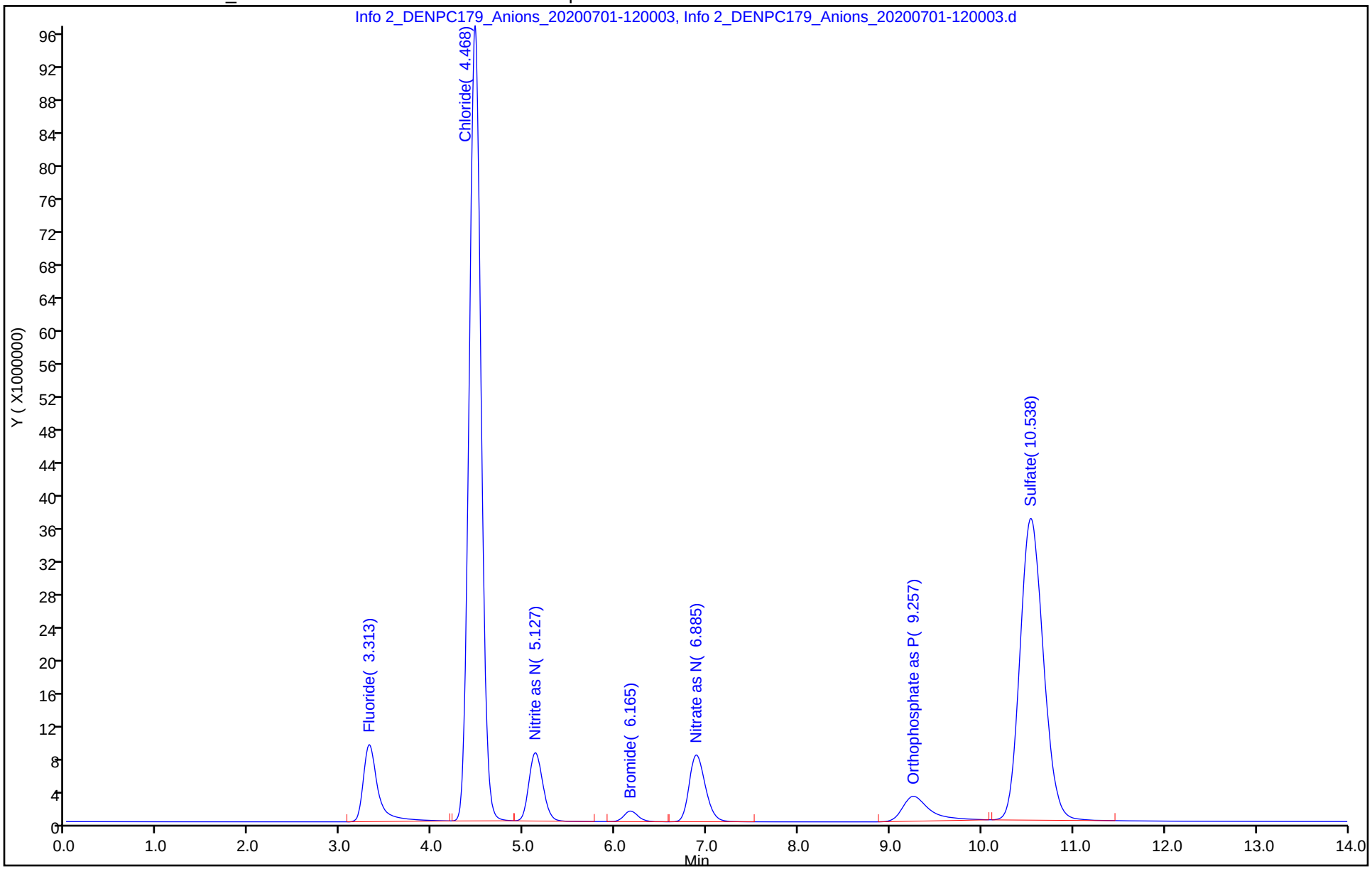
Reagents:

IC Cal low_00531	Amount Added:	2.00	Units: mL
IC CAL cl/so4_00317	Amount Added:	8.00	Units: mL

Report Date: 02-Jul-2020 08:53:38 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120003.d				
Injection Date:	01-Jul-2020 11:42:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD6			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

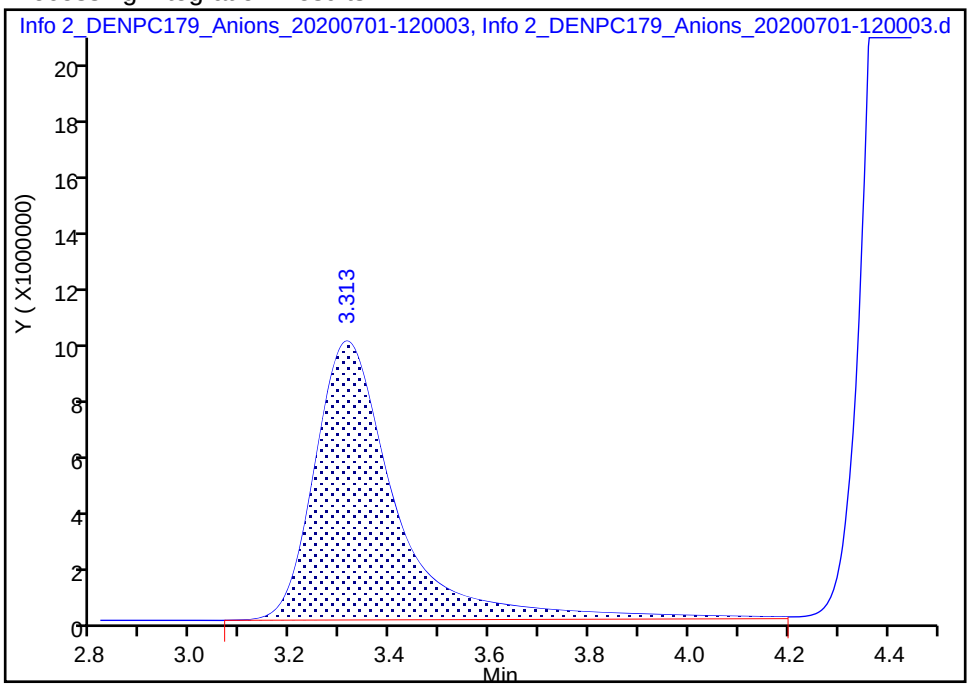
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120				
Injection Date:	01-Jul-2020 11:42:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD6				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

1 Fluoride, CAS: 16984-48-8

Signal: 1

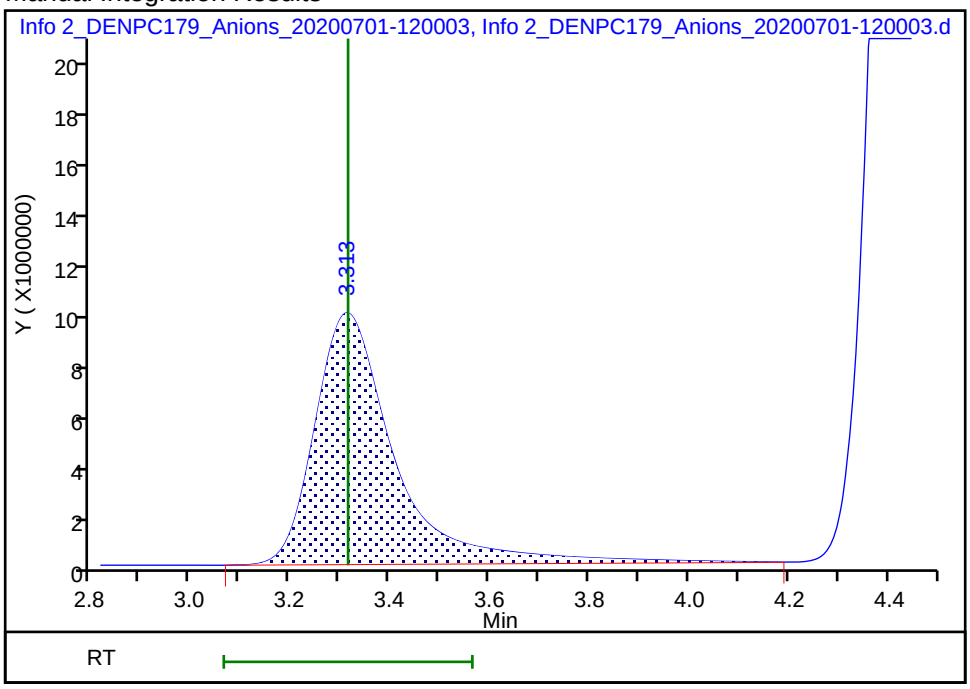
Processing Integration Results

RT: 3.31
Area: 104831928
Amount: 8.949155
Amount Units: ug/ml



Manual Integration Results

RT: 3.31
Area: 103250376
Amount: 8.982623
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

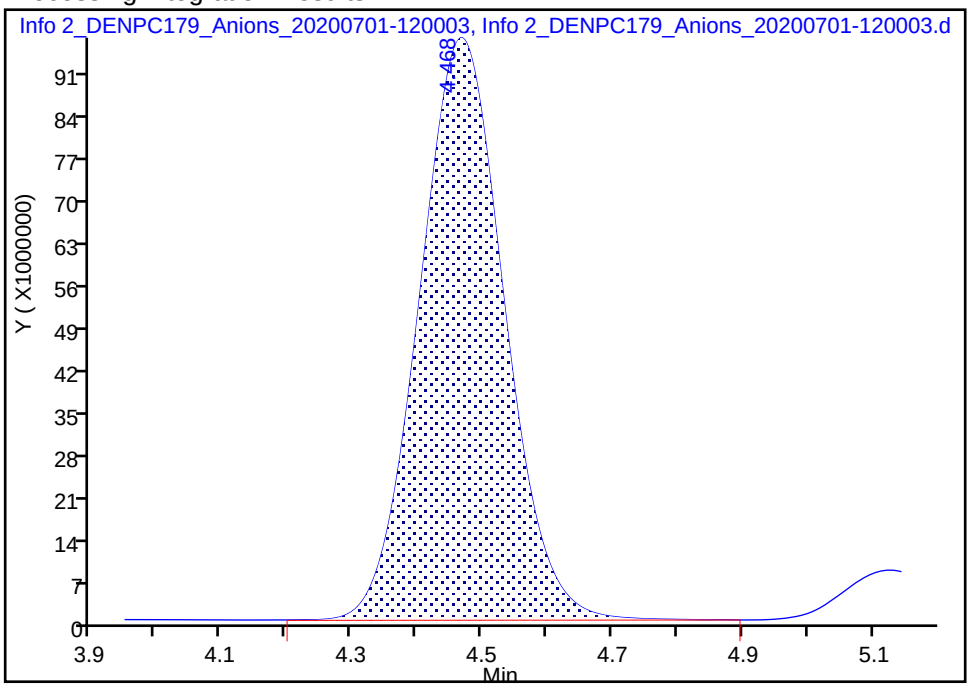
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Injection Date:	01-Jul-2020 11:42:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD6				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

2 Chloride, CAS: 16887-00-6

Signal: 1

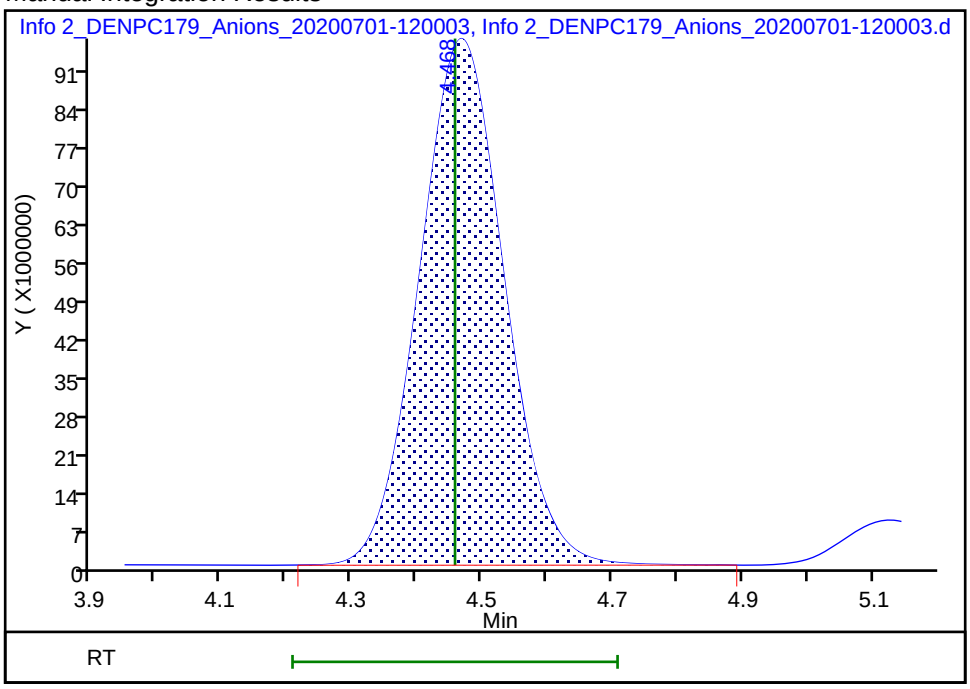
Processing Integration Results

RT: 4.47
Area: 869163936
Amount: 194.4175
Amount Units: ug/ml



Manual Integration Results

RT: 4.47
Area: 867974360
Amount: 194.5125
Amount Units: ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:10:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

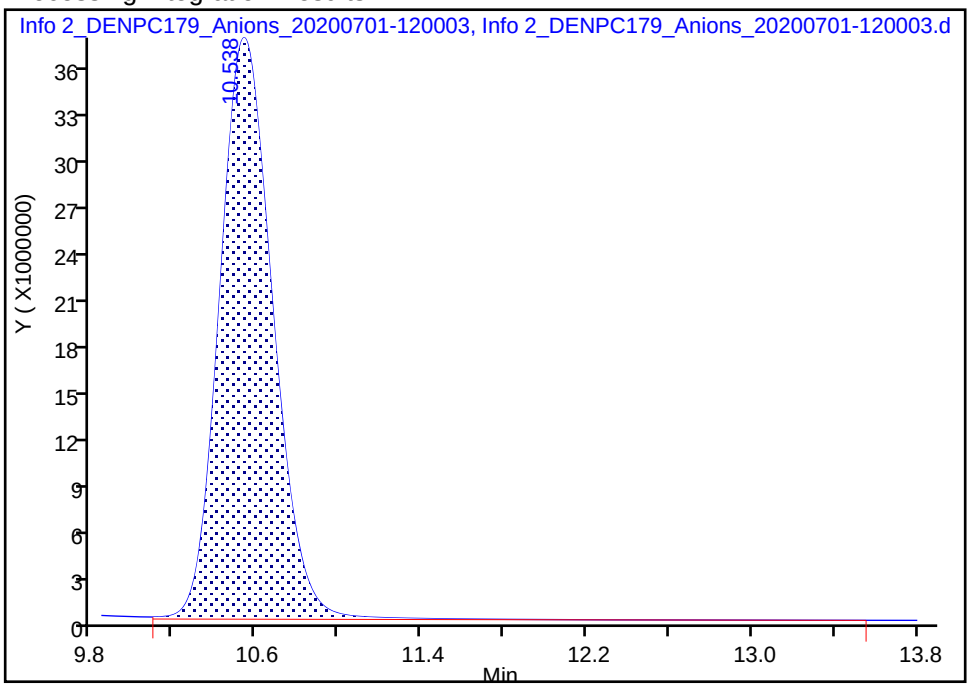
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Injection Date:	01-Jul-2020 11:42:00	Instrument ID:	WC_IonChrom10		
Lims ID:	STD6				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

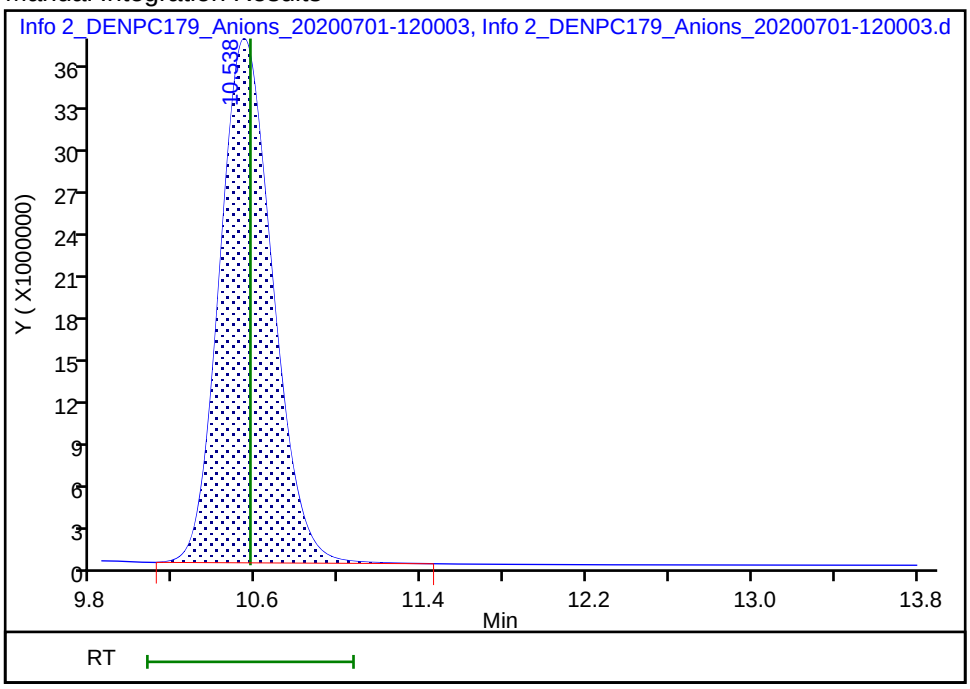
Processing Integration Results

RT:	10.54
Area:	652046554
Amount:	196.2079
Amount Units:	ug/ml



Manual Integration Results

RT:	10.54
Area:	643853306
Amount:	195.0177
Amount Units:	ug/ml



Reviewer: pedrickj, 01-Jul-2020 12:12:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

IC Instrument Information

WL: 92933 **Inst ID:** 10 **Analysis Date:** 7/1/2020 **Analyst:** CJ.

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	138168	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 9,5	
☐	138165	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137629	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137702	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137729	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137731	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137739	4	F Cl NO2 Br NO3 PO4 SO4	MS/D 2	
☐	137877	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	138189	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	138209	11	F Cl NO2 Br NO3 PO4 SO4	MS/D 17	
☐	138205	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
168		F Cl NO2 Br NO3 PO4 SO4	2,5,10,20,100x	Hist.
165		F Cl NO2 Br NO3 PO4 SO4	10X	coverage.
877		F Cl NO2 Br NO3 PO4 SO4	100,500x	Rerun
739		F Cl NO2 Br NO3 PO4 SO4	10,20,50X	
731		F Cl NO2 Br NO3 PO4 SO4	5X	
729		F Cl NO2 Br NO3 PO4 SO4	10X	
702		F Cl NO2 Br NO3 PO4 SO4	5X	
629		F Cl NO2 Br NO3 PO4 SO4	10X	
		F Cl NO2 Br NO3 PO4 SO4		

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument:	WC_IonChrom10	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	01-Jul-2020 13:29:06

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b
Inj Date : 01-Jul-2020 10:15:00, Sublist: chrom-Anions_IC10*sub2

Detector 1: Info 2_091554_1

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-218699	1173792	R1	).978*				
2 Chloride	-232735	4474271		0.998				
3 Nitrite as N					-126838	9011379		0.996
4 Bromide	-82777	1402586		0.998				
5 Nitrate as N					-122021	1011392		0.996
6 Orthophosphate as P					668780	6745962	R1	).986*
7 Sulfate	-208538	3312206		0.998				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jul-2020 13:29:06
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-103250
Inj Date: 01-Jul-2020 10:15:00 Worklist: 92933 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105016
Inj Date: 01-Jul-2020 10:32:00 Worklist: 92933 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-110742
Inj Date: 01-Jul-2020 10:50:00 Worklist: 92933 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-112509
Inj Date: 01-Jul-2020 11:07:00 Worklist: 92933 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-114236
Inj Date: 01-Jul-2020 11:25:00 Worklist: 92933 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120003
Inj Date: 01-Jul-2020 11:42:00 Worklist: 92933 Sample#: 7

Start Cal Date: 01-Jul-2020 10:15:00 End Cal Date: 01-Jul-2020 11:42:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride			Signal: 1				R1		
4807335	4742134	6181090	13598660	12238531	10325038	-2186993			*0.978
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		11737926		
961467	2371067	6181090	M54394640	M97908249	M103250376				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
2 Chloride			Signal: 1						
3076322	3191656	3289777	4495290	4659117	4339872	-2327357			0.998
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		4474271		
3076322	7979140	16448884	M269717419	M559094029	M867974360				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
4 Bromide			Signal: 1						
1188925	1139766	1237161	1311747	1455508	1380874	-82777			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		1402586		
237785	569883	1237161	5246989	11644065	13808743				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
7 Sulfate			Signal: 1						
2142172	2152404	2203872	3314620	3441723	3219267	-2085386			0.998
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		3312206		
M2142172	M5381010	M11019361	M198877200	M413006715	M643853306				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jul-2020 13:29:06
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-103250
Inj Date: 01-Jul-2020 10:15:00 Worklist: 92933 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105016
Inj Date: 01-Jul-2020 10:32:00 Worklist: 92933 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-110742
Inj Date: 01-Jul-2020 10:50:00 Worklist: 92933 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-112509
Inj Date: 01-Jul-2020 11:07:00 Worklist: 92933 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-114236
Inj Date: 01-Jul-2020 11:25:00 Worklist: 92933 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120003
Inj Date: 01-Jul-2020 11:42:00 Worklist: 92933 Sample#: 7

Start Cal Date: 01-Jul-2020 10:15:00 End Cal Date: 01-Jul-2020 11:42:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
5152500	5403816	6222745	8440875	9373557	8725226	-1268384			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		9011379		
1030500	2701908	6222745	33763500	74988454	87252262				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
5 Nitrate as N				Signal: 1					
6630285	6822626	7034872	9499505	10470593	9884374	-1220212			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10113925		
1326057	3411313	7034872	37998018	83764745	98843744				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
6 Orthophosphate as P				Signal: 1			R1		
8931090	6786418	9349399	7923232	6932613	6220933	668780			*0.986
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		6745962		
M1786218	M3393209	M9349399	M31692928	M55460901	M62209329				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1217				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	01-Jul-2020 12:00:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-008				
Misc. Info.:	280-0092933-008				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:					
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:38	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.313	3.313	0.000	41597307	4.00	3.73	
2 Chloride	4.465	4.465	0.000	340115174	80.0	76.5	
3 Nitrite as N	5.140	5.140	0.000	34274825	NC	NC	
4 Bromide	6.183	6.183	0.000	5430195	4.00	3.93	
5 Nitrate as N	6.917	6.917	0.000	38254275	NC	NC	
6 Orthophosphate as P	9.300	9.300	0.000	33210073	NC	NC	
7 Sulfate	10.580	10.580	0.000	248153211	80.0	75.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

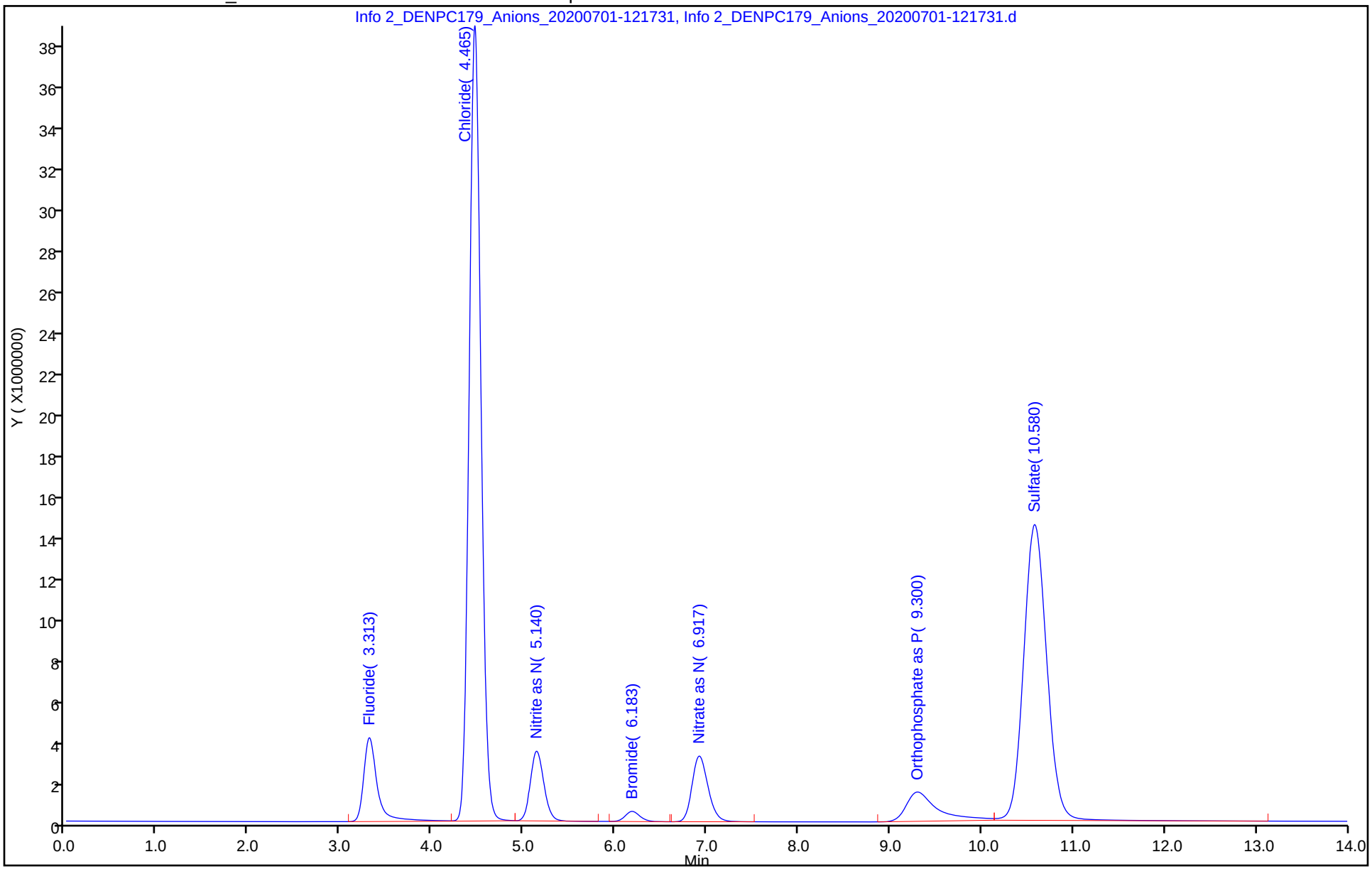
Reagents:

IC SO4 ICV_00021	Amount Added:	0.80	Units: mL
IC ICV 5_00274	Amount Added:	0.80	Units: mL
IC CL ICV_00018	Amount Added:	0.80	Units: mL

Report Date: 02-Jul-2020 08:53:38 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-121731.d				
Injection Date:	01-Jul-2020 12:00:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1234				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	01-Jul-2020 12:17:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092933-009				
Misc. Info.:	280-0092933-009				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jul-2020 08:53:38	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1013				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.472	4.465	0.007	65370		0.5348	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.370	9.300	0.070	330843		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

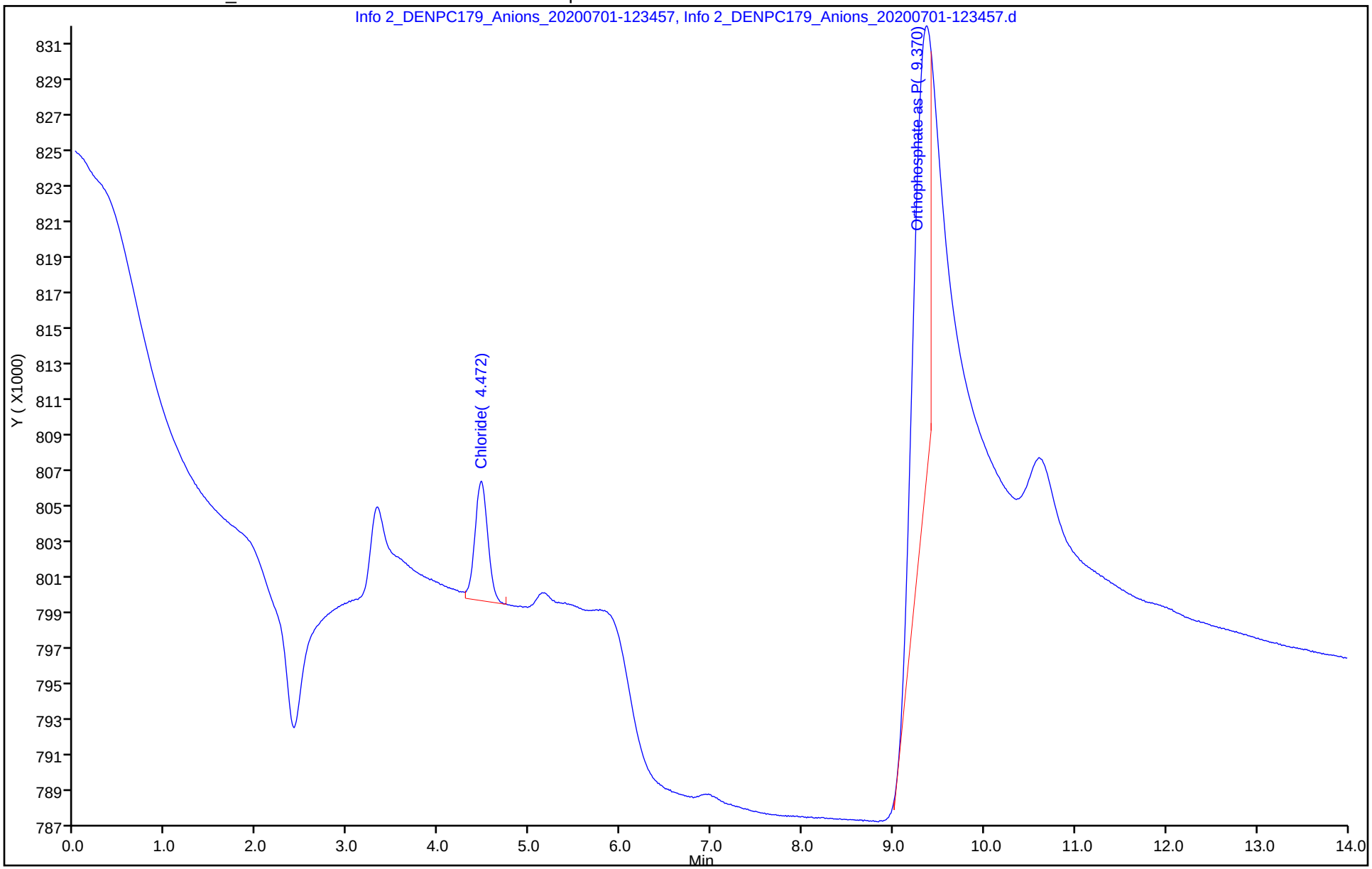
Processing Flags

NC - Not Calibrated

Report Date: 02-Jul-2020 08:53:39 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-123457.d				
Injection Date:	01-Jul-2020 12:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 92983 **Inst ID:** 10 **Analysis Date:** 7/2/20 **Analyst:** CJ.

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	137555	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137772	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137773	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	1,2
☐	137797	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137848	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137901	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137948	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137965	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137971	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	138010	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
555		F Cl NO2 Br NO3 PO4 SO4	5, 20x	Rerun.
772		F Cl NO2 Br NO3 PO4 SO4	5X	Rerun
773		F Cl NO2 Br NO3 PO4 SO4	5, 10x	Rerun.
797		F Cl NO2 Br NO3 PO4 SO4	5x	coverage.
848		F Cl NO2 Br NO3 PO4 SO4	5X	coverage.
901		F Cl NO2 Br NO3 PO4 SO4	10x	coverage.
948		F Cl NO2 Br NO3 PO4 SO4	10x	Rerun.
965		F Cl NO2 Br NO3 PO4 SO4	10, 100x	TEST.
971		F Cl NO2 Br NO3 PO4 SO4	10x	coverage.
010			5X	TEST.

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument:	WC_IonChrom10	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	01-Jul-2020 13:29:06

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b
Inj Date : 01-Jul-2020 10:15:00, Sublist: chrom-Anions_IC10*sub2

Detector 1: Info 2_091554_1

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-218699	1173792	R1	).978*				
2 Chloride	-232735	4474271		0.998				
3 Nitrite as N					-126838	9011379		0.996
4 Bromide	-82777	1402586		0.998				
5 Nitrate as N					-122021	1011392		0.996
6 Orthophosphate as P					668780	6745962	R1	).986*
7 Sulfate	-208538	3312206		0.998				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jul-2020 13:29:06
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-103250
Inj Date: 01-Jul-2020 10:15:00 Worklist: 92933 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105016
Inj Date: 01-Jul-2020 10:32:00 Worklist: 92933 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-110742
Inj Date: 01-Jul-2020 10:50:00 Worklist: 92933 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-112509
Inj Date: 01-Jul-2020 11:07:00 Worklist: 92933 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-114236
Inj Date: 01-Jul-2020 11:25:00 Worklist: 92933 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120003
Inj Date: 01-Jul-2020 11:42:00 Worklist: 92933 Sample#: 7

Start Cal Date: 01-Jul-2020 10:15:00 End Cal Date: 01-Jul-2020 11:42:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride			Signal: 1				R1		
4807335	4742134	6181090	13598660	12238531	10325038	-2186993			*0.978
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		11737926		
961467	2371067	6181090	M54394640	M97908249	M103250376				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
2 Chloride			Signal: 1						
3076322	3191656	3289777	4495290	4659117	4339872	-2327357			0.998
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		4474271		
3076322	7979140	16448884	M269717419	M559094029	M867974360				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
4 Bromide			Signal: 1						
1188925	1139766	1237161	1311747	1455508	1380874	-82777			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		1402586		
237785	569883	1237161	5246989	11644065	13808743				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
7 Sulfate			Signal: 1						
2142172	2152404	2203872	3314620	3441723	3219267	-2085386			0.998
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		3312206		
M2142172	M5381010	M11019361	M198877200	M413006715	M643853306				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jul-2020 13:29:06
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-103250
Inj Date: 01-Jul-2020 10:15:00 Worklist: 92933 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-105016
Inj Date: 01-Jul-2020 10:32:00 Worklist: 92933 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-110742
Inj Date: 01-Jul-2020 10:50:00 Worklist: 92933 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-112509
Inj Date: 01-Jul-2020 11:07:00 Worklist: 92933 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-114236
Inj Date: 01-Jul-2020 11:25:00 Worklist: 92933 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-120003
Inj Date: 01-Jul-2020 11:42:00 Worklist: 92933 Sample#: 7

Start Cal Date: 01-Jul-2020 10:15:00 End Cal Date: 01-Jul-2020 11:42:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
5152500	5403816	6222745	8440875	9373557	8725226	-1268384			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		9011379		
1030500	2701908	6222745	33763500	74988454	87252262				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
5 Nitrate as N				Signal: 1					
6630285	6822626	7034872	9499505	10470593	9884374	-1220212			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10113925		
1326057	3411313	7034872	37998018	83764745	98843744				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				
6 Orthophosphate as P				Signal: 1			R1		
8931090	6786418	9349399	7923232	6932613	6220933	668780			*0.986
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		6745962		
M1786218	M3393209	M9349399	M31692928	M55460901	M62209329				
92933(2)	92933(3)	92933(4)	92933(5)	92933(6)	92933(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1330				
Lims ID:	CCV				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 13:13:00	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-001				
Misc. Info.:	280-0092983-001				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.318	3.313	0.005	41317467	5.00	3.71	
2 Chloride	4.475	4.465	0.010	410989854	100.0	92.4	
3 Nitrite as N	5.145	5.140	0.005	39487109	NC	NC	
4 Bromide	6.182	6.183	-0.001	6099967	5.00	4.41	
5 Nitrate as N	6.915	6.917	-0.002	44456128	NC	NC	
6 Orthophosphate as P	9.318	9.300	0.018	31834445	NC	NC	
7 Sulfate	10.590	10.580	0.010	314017809	100.0	95.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

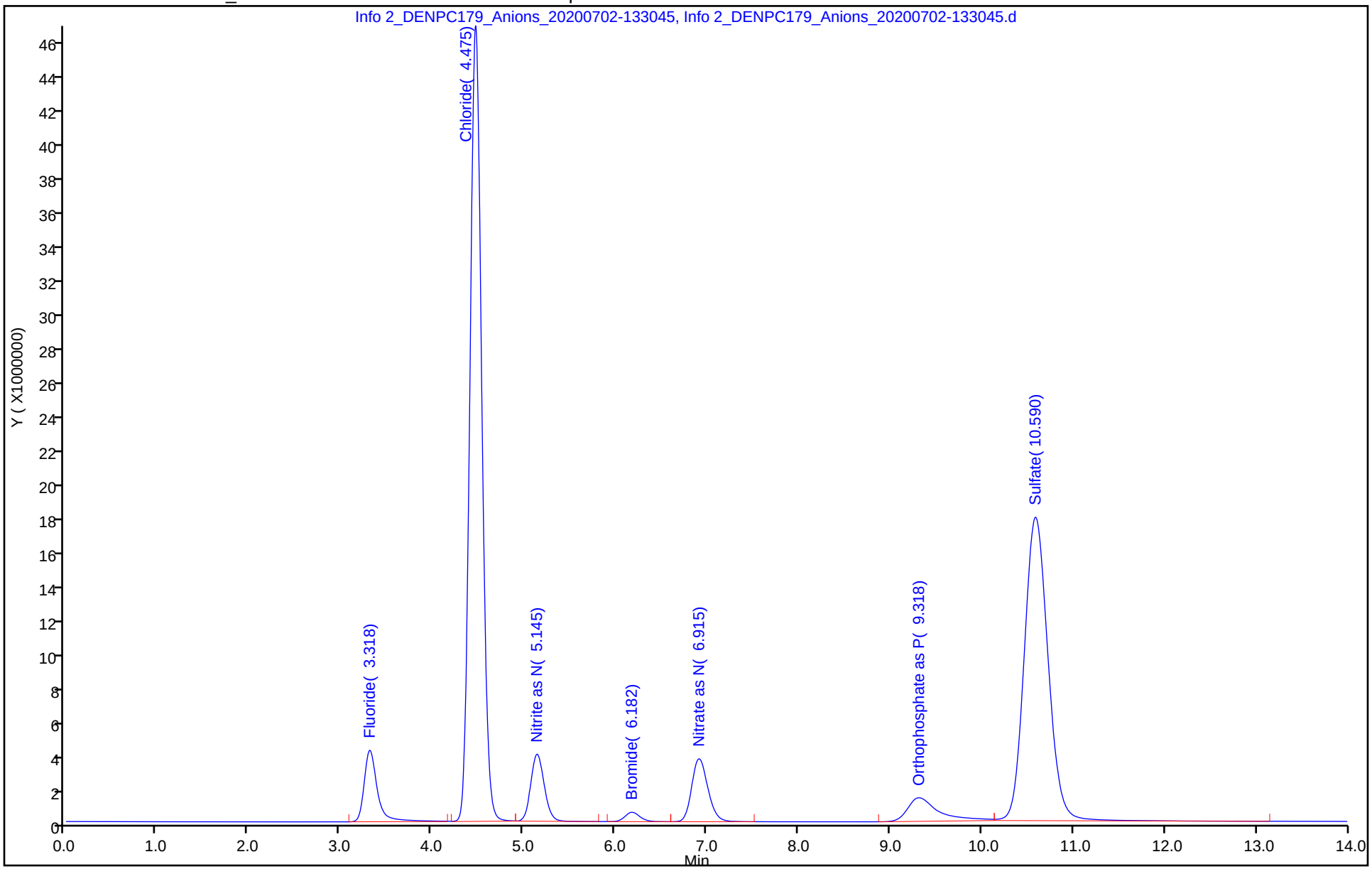
Reagents:

IC LCS_01747 Amount Added: 10.00 Units: mL

Report Date: 07-Jul-2020 09:49:04 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-133045.d				
Injection Date:	02-Jul-2020 13:13:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1348				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	02-Jul-2020 13:30:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-002				
Misc. Info.:	280-0092983-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.472	4.465	0.007	92511		0.5408	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.387	9.300	0.087	294740		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

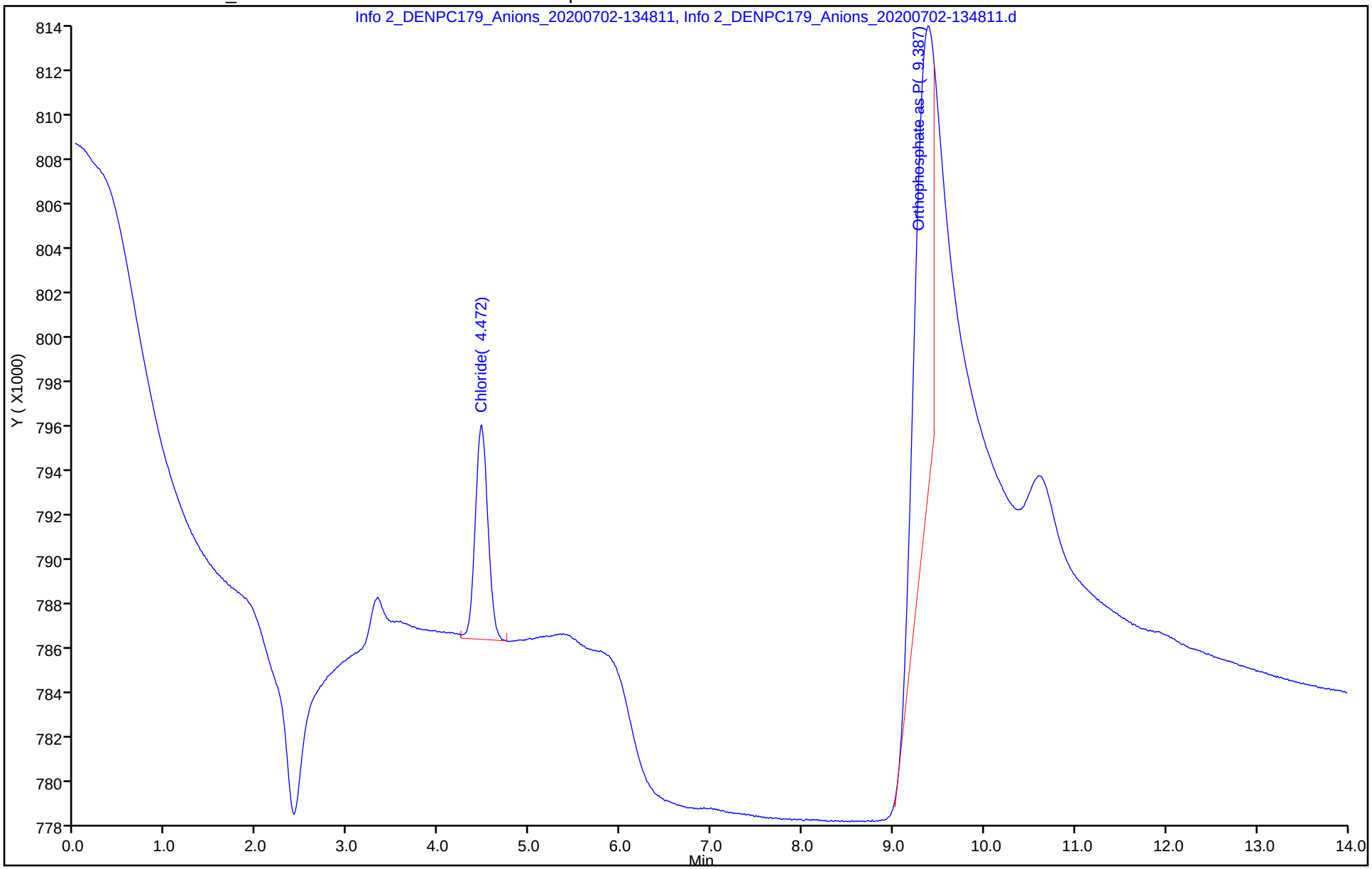
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:04 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-134811.d				
Injection Date:	02-Jul-2020 13:30:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1405				
Lims ID:	MRL				
Client ID:					
Sample Type:	MRL				
Inject. Date:	02-Jul-2020 13:48:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-003				
Misc. Info.:	280-0092983-003				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.308	3.313	-0.005	2454308	0.5000	0.3954	
2 Chloride	4.463	4.465	-0.002	17395499	5.00	4.41	
3 Nitrite as N	5.143	5.140	0.003	2518344	NC	NC	
4 Bromide	6.183	6.183	0.000	562168	0.5000	0.4598	
5 Nitrate as N	6.937	6.917	0.020	3333925	NC	NC	
6 Orthophosphate as P	9.335	9.300	0.035	3306162	NC	NC	
7 Sulfate	10.597	10.580	0.017	12235320	5.00	4.32	

QC Flag Legend

Processing Flags

NC - Not Calibrated

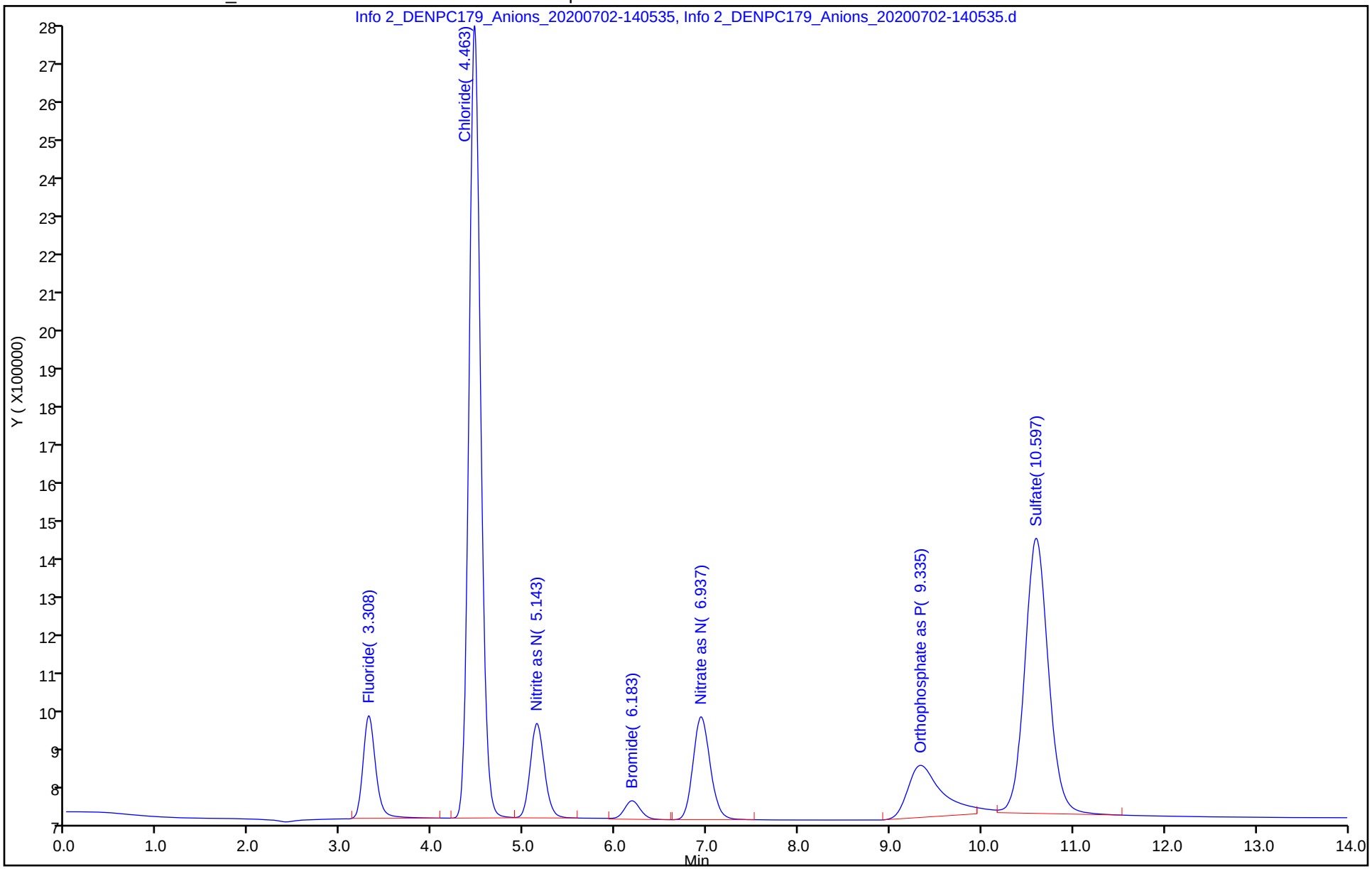
Reagents:

IC Cal low_00531	Amount Added:	0.10	Units: mL
IC CAL cl/so4_00317	Amount Added:	0.20	Units: mL

Report Date: 07-Jul-2020 09:49:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-140535.d				
Injection Date:	02-Jul-2020 13:48:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1423				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	02-Jul-2020 14:05:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-004				
Misc. Info.:	280-0092983-004				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.318	3.313	0.005	48051332	5.00	4.28	
2 Chloride	4.470	4.465	0.005	412045503	100.0	92.6	
3 Nitrite as N	5.143	5.140	0.003	38609418	NC	NC	
4 Bromide	6.183	6.183	0.000	6117510	5.00	4.42	
5 Nitrate as N	6.915	6.917	-0.002	44599568	NC	NC	
6 Orthophosphate as P	9.318	9.300	0.018	33811179	NC	NC	
7 Sulfate	10.592	10.580	0.012	314721888	100.0	95.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

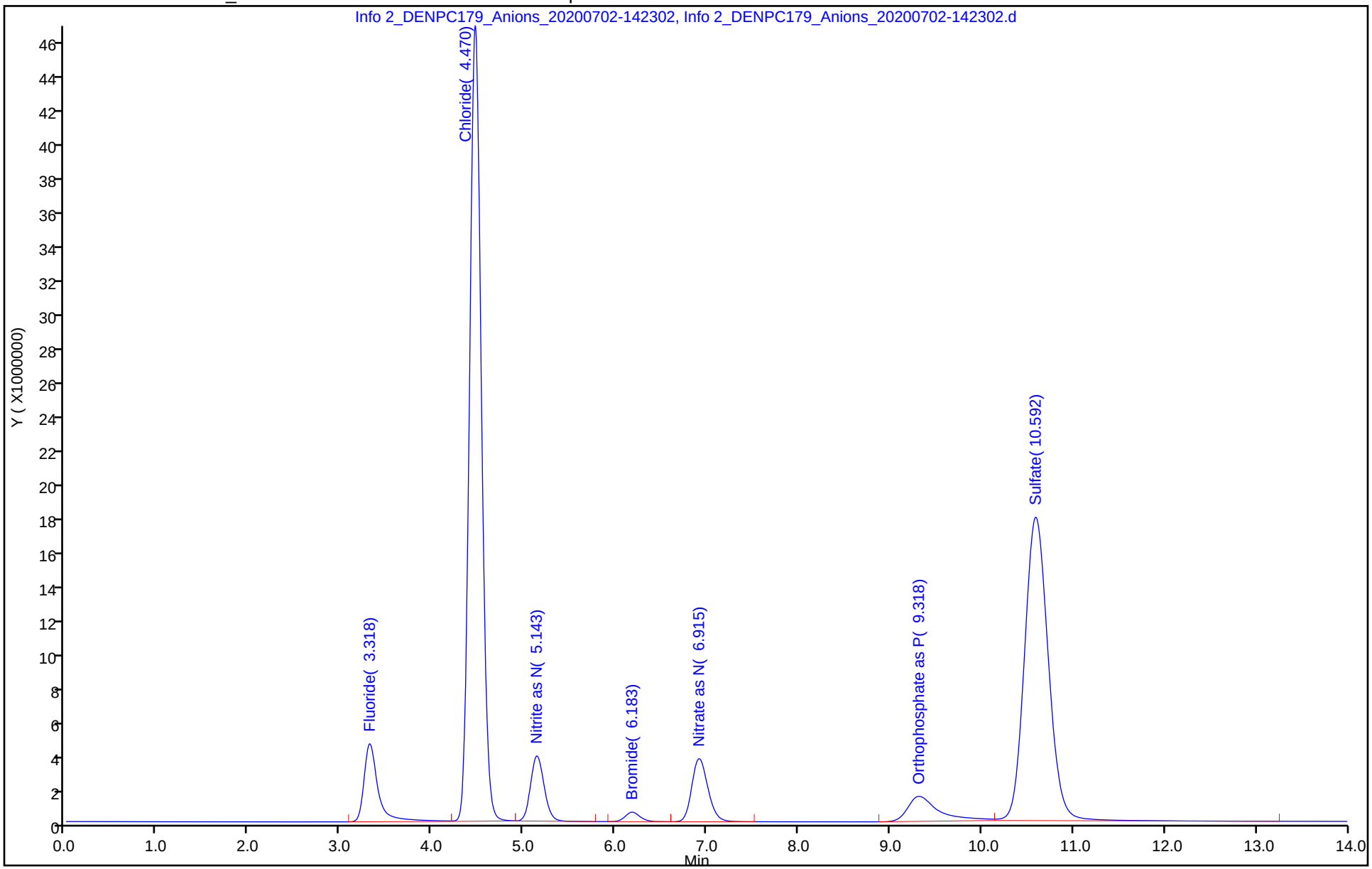
Reagents:

IC LCS_01747 Amount Added: 10.00 Units: mL

Report Date: 07-Jul-2020 09:49:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-142302.d				
Injection Date:	02-Jul-2020 14:05:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1440				
Lims ID:	LCSD				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	02-Jul-2020 14:23:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-005				
Misc. Info.:	280-0092983-005				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.338	3.313	0.025	46873849	5.00	4.18	
2 Chloride	4.500	4.465	0.035	414543321	100.0	93.2	
3 Nitrite as N	5.178	5.140	0.038	38771589	NC	NC	
4 Bromide	6.227	6.183	0.044	6125315	5.00	4.43	
5 Nitrate as N	6.963	6.917	0.046	44851607	NC	NC	
6 Orthophosphate as P	9.382	9.300	0.082	34281631	NC	NC	
7 Sulfate	10.667	10.580	0.087	313810504	100.0	95.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

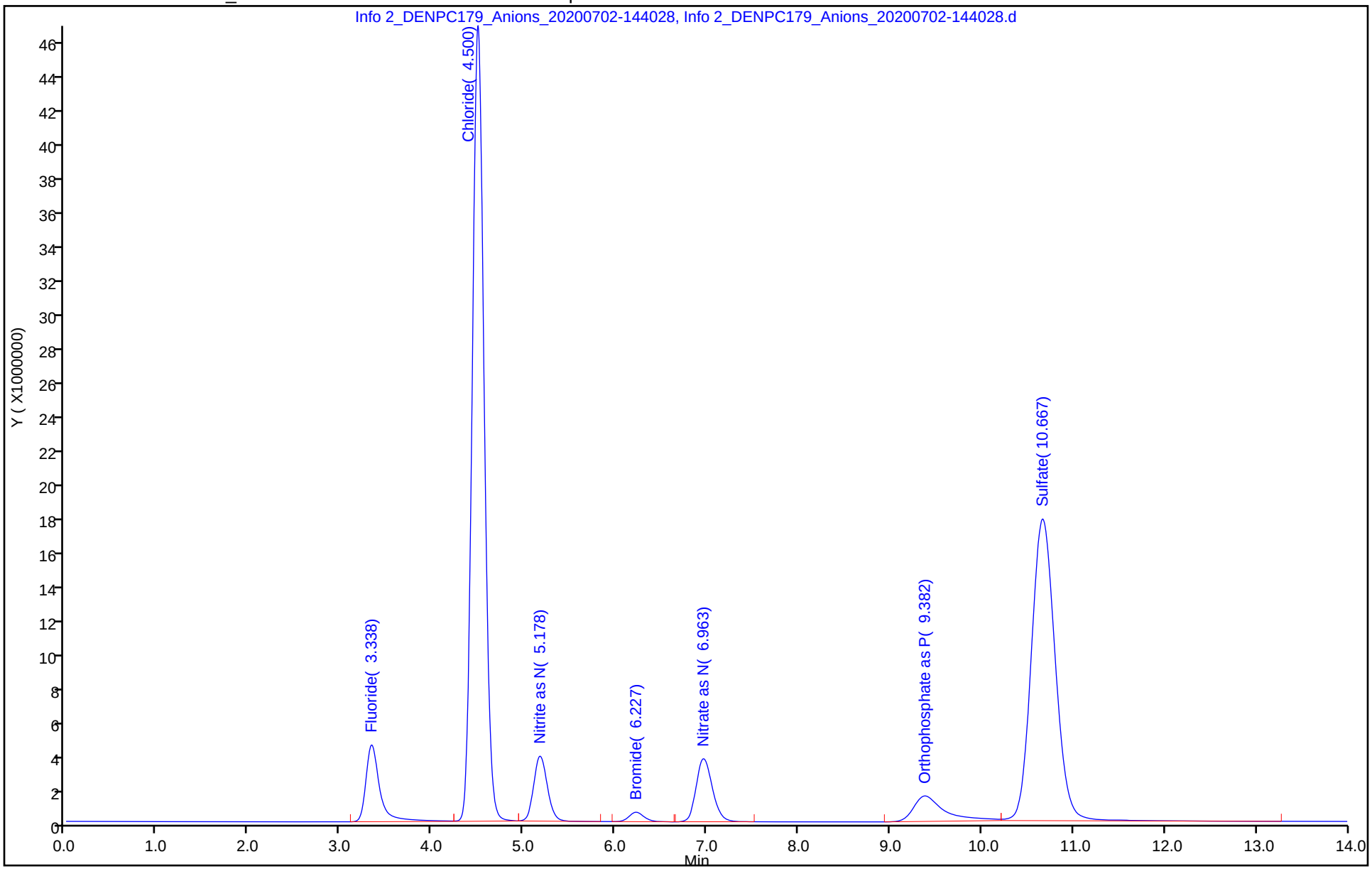
Reagents:

IC LCS_01747 Amount Added: 10.00 Units: mL

Report Date: 07-Jul-2020 09:49:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-144028.d				
Injection Date:	02-Jul-2020 14:23:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1457				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	02-Jul-2020 14:40:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-006				
Misc. Info.:	280-0092983-006				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:03	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.477	4.465	0.012	67502		0.5353	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.388	9.300	0.088	829140		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

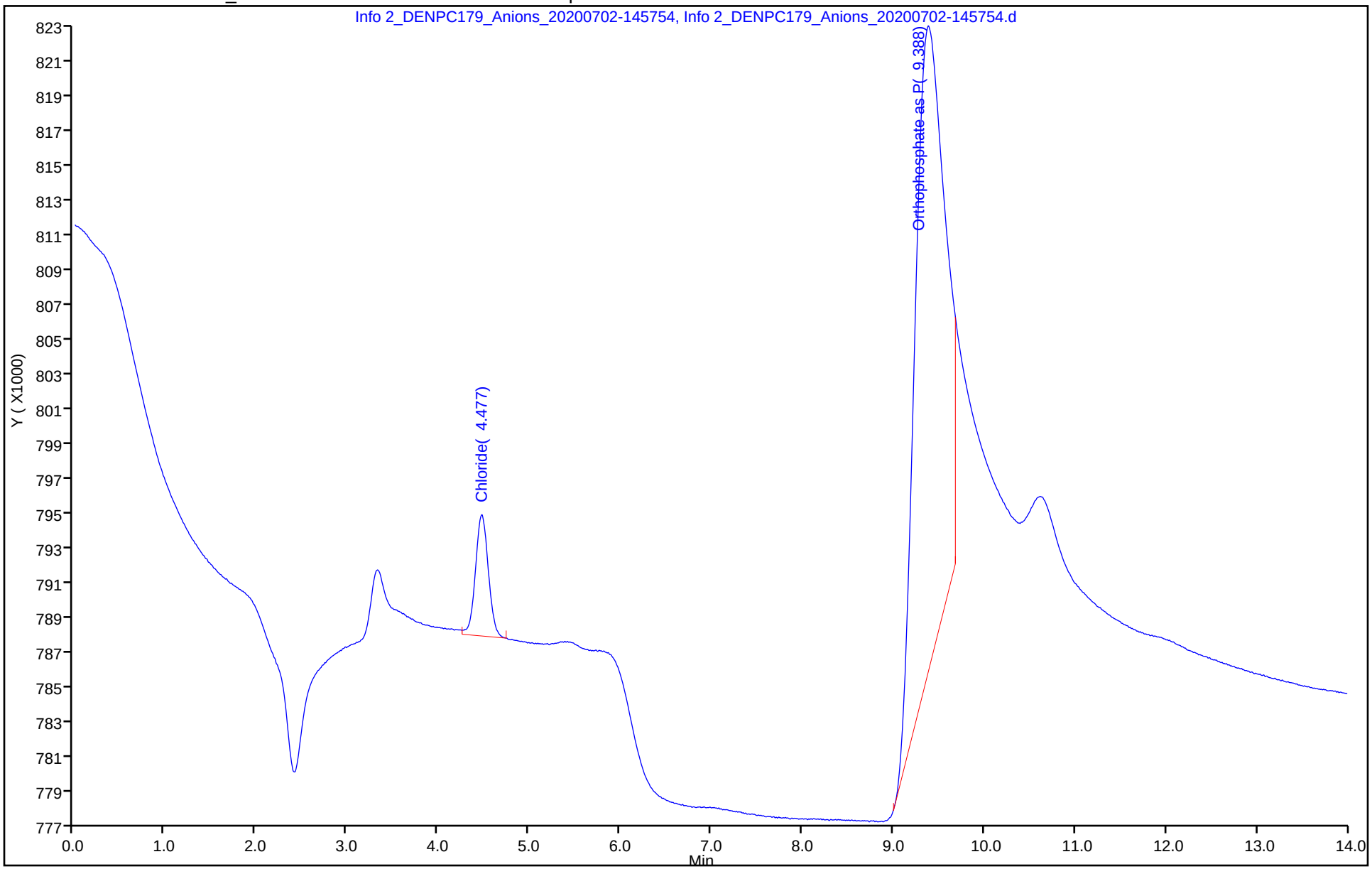
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:06 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-145754.d				
Injection Date:	02-Jul-2020 14:40:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1826				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 18:08:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-017				
Misc. Info.:	280-0092983-017				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:10	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.322	3.313	0.009	38172042	5.00	3.44	
2 Chloride	4.478	4.465	0.013	411406528	100.0	92.5	
3 Nitrite as N	5.152	5.140	0.012	39841812	NC	NC	
4 Bromide	6.188	6.183	0.005	6055872	5.00	4.38	
5 Nitrate as N	6.918	6.917	0.001	44327831	NC	NC	
6 Orthophosphate as P	9.318	9.300	0.018	34324879	NC	NC	
7 Sulfate	10.595	10.580	0.015	313606568	100.0	95.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

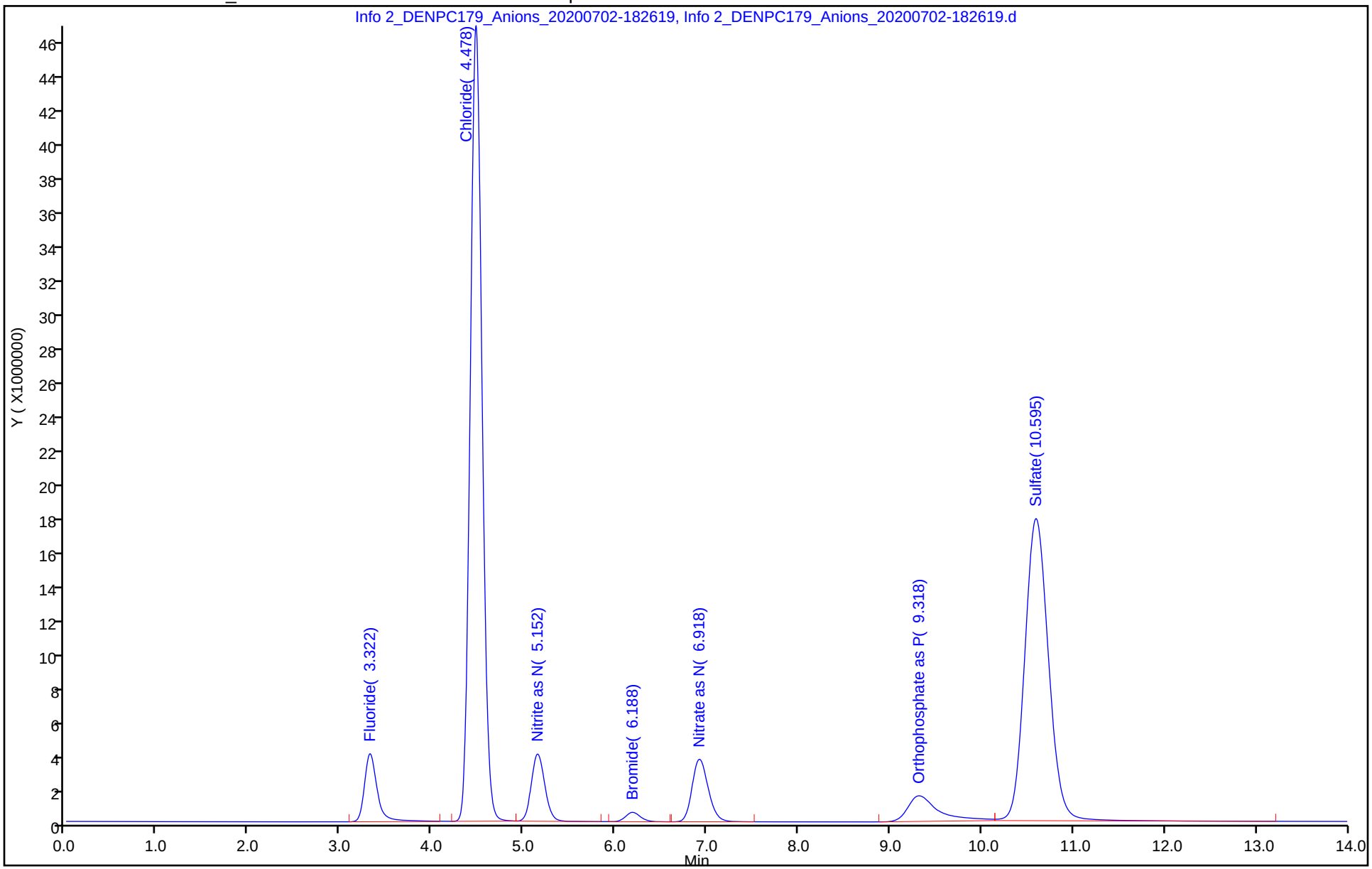
Reagents:

IC LCS_01747 Amount Added: 5.00 Units: mL

Report Date: 07-Jul-2020 09:49:10 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-182619.d				
Injection Date:	02-Jul-2020 18:08:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-1843				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	02-Jul-2020 18:26:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-018				
Misc. Info.:	280-0092983-018				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:10	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.485	4.465	0.020	65472		0.5348	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.393	9.300	0.093	386562		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

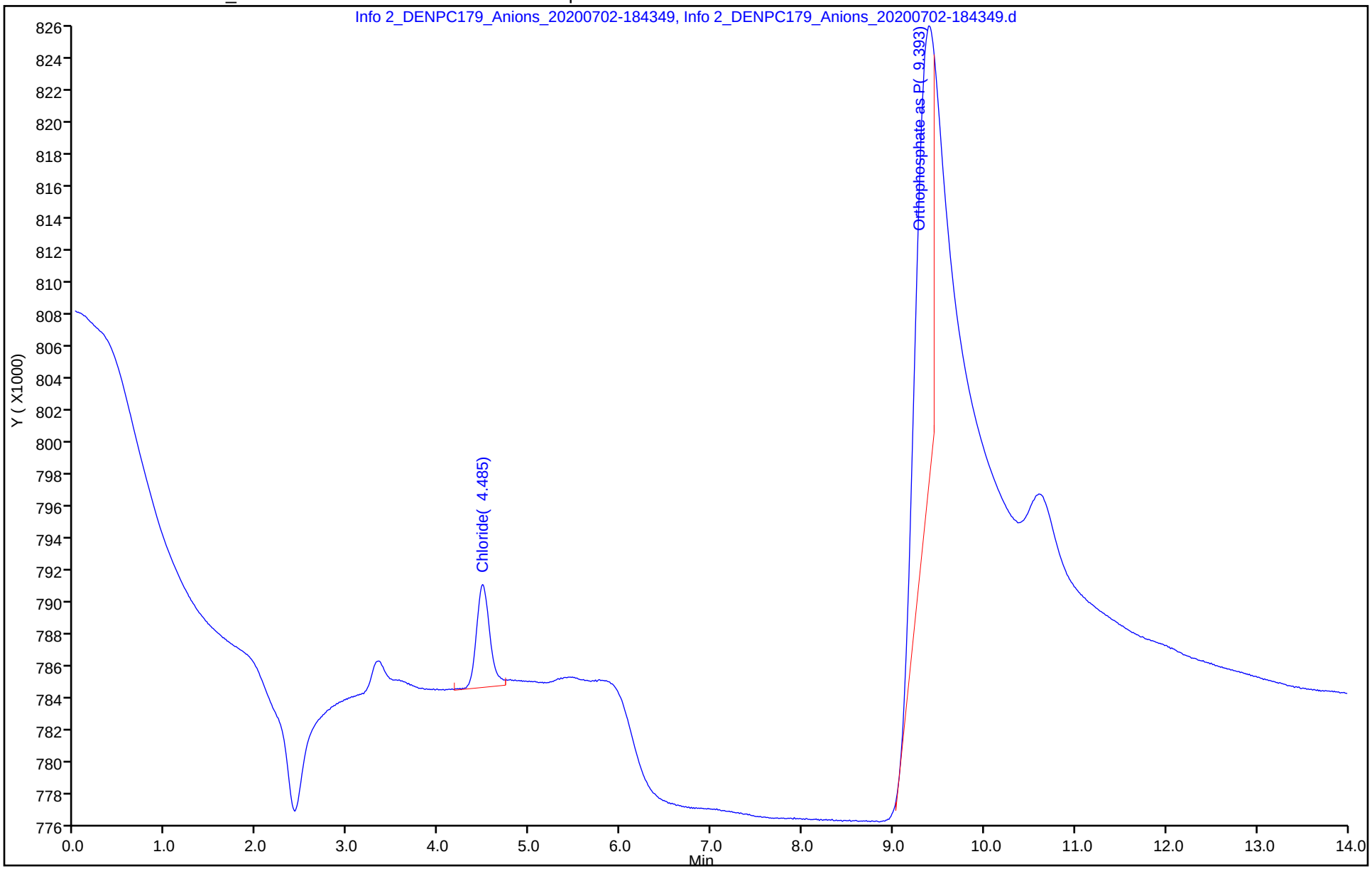
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:10 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-184349.d				
Injection Date:	02-Jul-2020 18:26:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-2156				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	02-Jul-2020 21:39:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-029				
Misc. Info.:	280-0092983-029				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:15	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.318	3.313	0.005	37601366	5.00	3.39	
2 Chloride	4.475	4.465	0.010	413171446	100.0	92.9	
3 Nitrite as N	5.150	5.140	0.010	39705468	NC	NC	
4 Bromide	6.187	6.183	0.004	6124969	5.00	4.43	
5 Nitrate as N	6.922	6.917	0.005	44432080	NC	NC	
6 Orthophosphate as P	9.322	9.300	0.022	32099837	NC	NC	
7 Sulfate	10.600	10.580	0.020	316464011	100.0	96.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

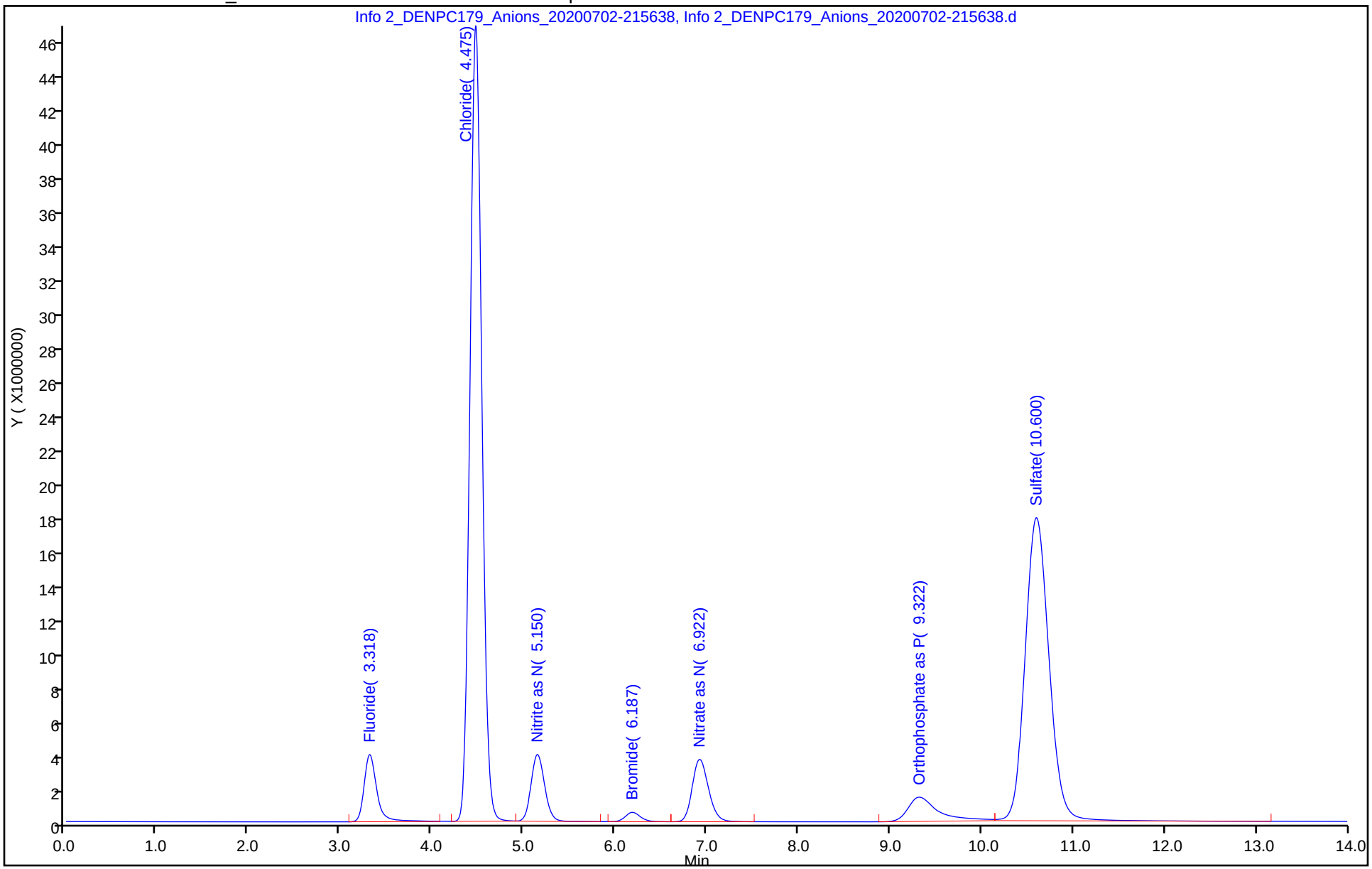
Reagents:

IC LCS_01747 Amount Added: 5.00 Units: mL

Report Date: 07-Jul-2020 09:49:15 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-215638.d				
Injection Date:	02-Jul-2020 21:39:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-2214				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	02-Jul-2020 21:56:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-030				
Misc. Info.:	280-0092983-030				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:15	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.482	4.465	0.017	44386		0.5301	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.402	9.300	0.102	907106		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

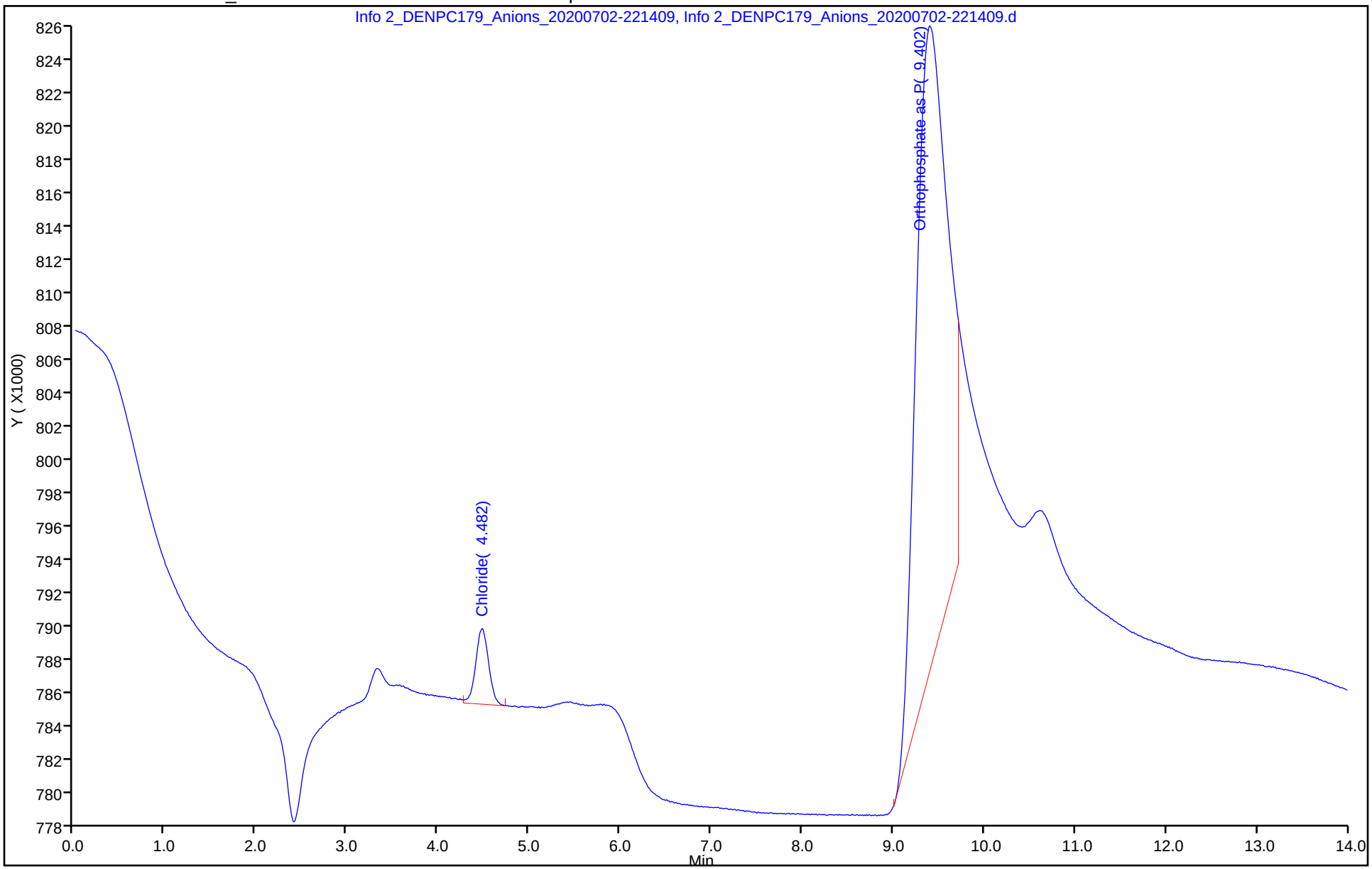
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:15 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-221409.d				
Injection Date:	02-Jul-2020 21:56:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-2231				
Lims ID:	280-137848-F-1				
Client ID:	PZ018-20A				
Sample Type:	Client				
Inject. Date:	02-Jul-2020 22:14:00	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-031				
Misc. Info.:	280-0092983-031				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:15	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.322	3.313	0.009	1094437	0.2796	
2 Chloride	4.472	4.465	0.007	72982265	16.8	
3 Nitrite as N	5.150	5.140	0.010	46076	NC	
4 Bromide		6.183			ND	
5 Nitrate as N	6.895	6.917	-0.022	291411682	NC	
6 Orthophosphate as P	9.385	9.300	0.085	2148110	NC	
7 Sulfate	10.615	10.580	0.035	221211819	67.4	

QC Flag Legend

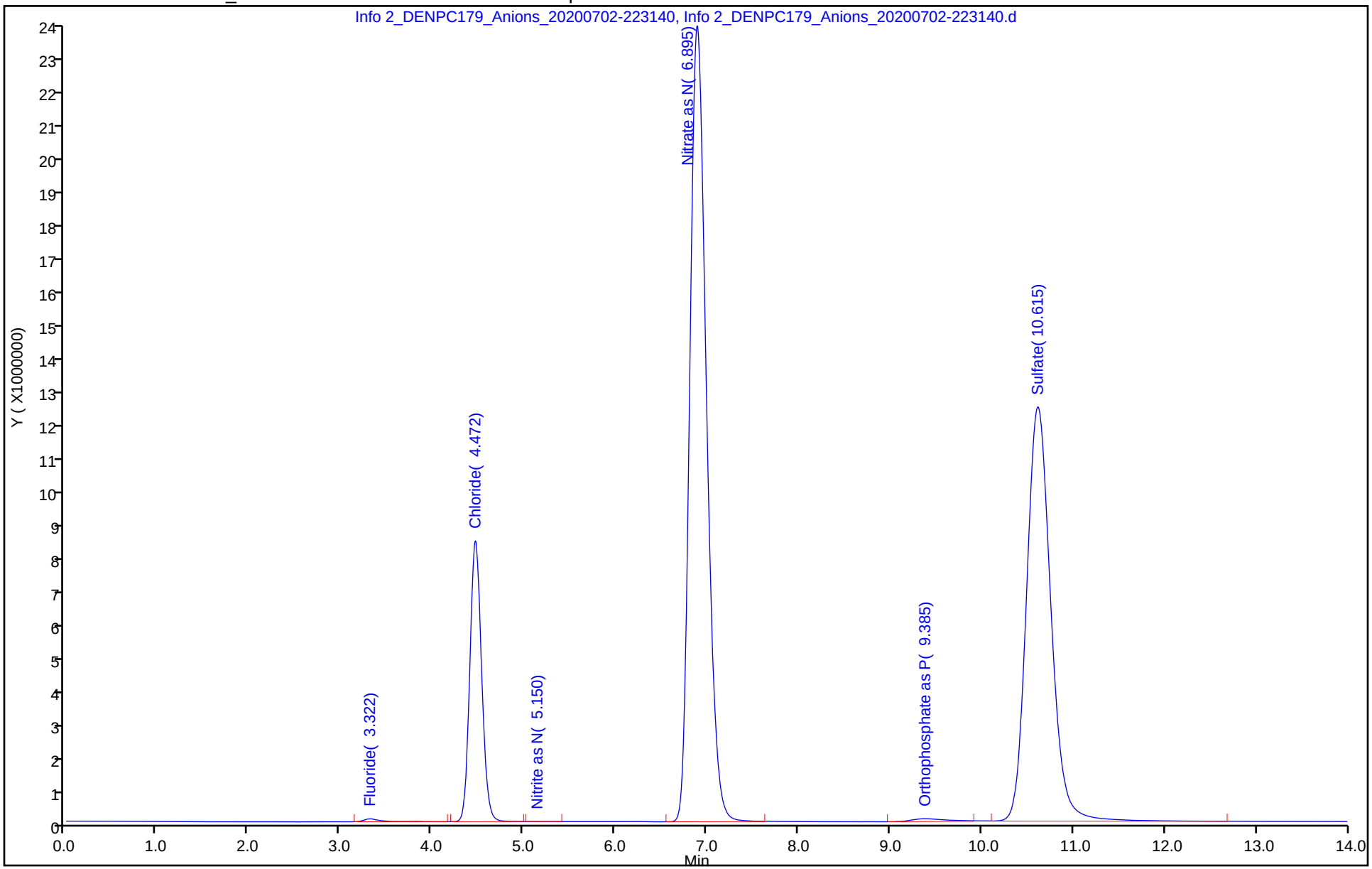
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:16 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-223140.d				
Injection Date:	02-Jul-2020 22:14:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-137848-F-1	Lab Sample ID:	280-137848-1	Worklist Smp#:	31
Client ID:	PZ018-20A				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-2324				
Lims ID:	280-137848-F-2				
Client ID:	G0090-20A				
Sample Type:	Client				
Inject. Date:	02-Jul-2020 23:06:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-034				
Misc. Info.:	280-0092983-034				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:15	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.320	3.313	0.007	1184583	0.2872	
2 Chloride	4.477	4.465	0.012	128071249	29.1	
3 Nitrite as N		5.140			ND	
4 Bromide	6.232	6.183	0.049	212689	0.2107	
5 Nitrate as N	6.955	6.917	0.038	25531525	NC	
6 Orthophosphate as P	9.397	9.300	0.097	2439204	NC	
7 Sulfate	10.620	10.580	0.040	411623745	124.9	

QC Flag Legend

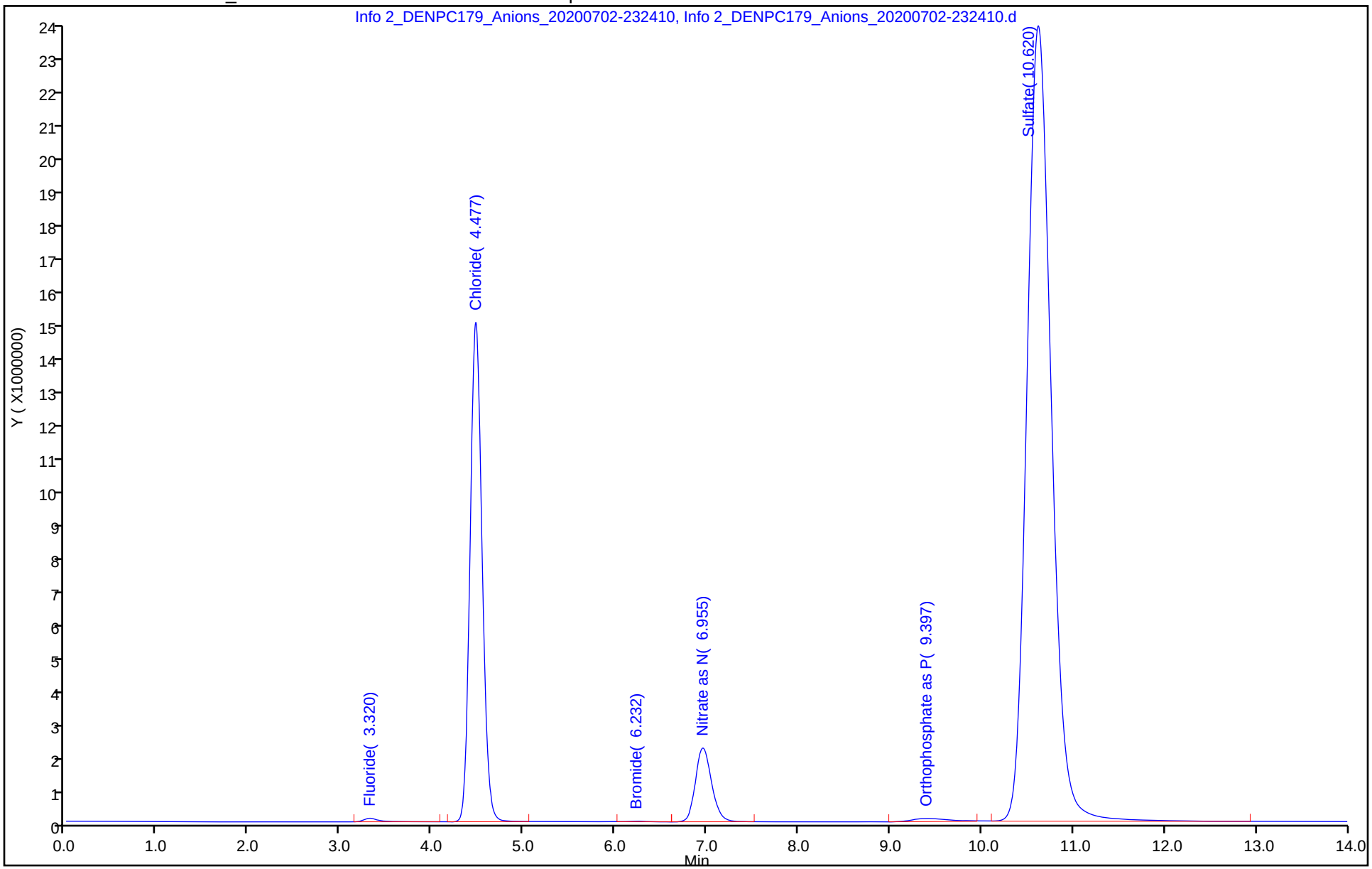
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:17 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200702-232410.d				
Injection Date:	02-Jul-2020 23:06:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-137848-F-2	Lab Sample ID:	280-137848-2	Worklist Smp#:	34
Client ID:	G0090-20A				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200703-0034				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-Jul-2020 00:16:00	ALS Bottle#:	0	Worklist Smp#:	38
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-038				
Misc. Info.:	280-0092983-038				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:18	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.323	3.313	0.010	38086209	5.00	3.43	
2 Chloride	4.483	4.465	0.018	414257947	100.0	93.1	
3 Nitrite as N	5.157	5.140	0.017	39754417	NC	NC	
4 Bromide	6.195	6.183	0.012	6138699	5.00	4.44	
5 Nitrate as N	6.930	6.917	0.013	44443123	NC	NC	
6 Orthophosphate as P	9.330	9.300	0.030	31126808	NC	NC	
7 Sulfate	10.610	10.580	0.030	317250282	100.0	96.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

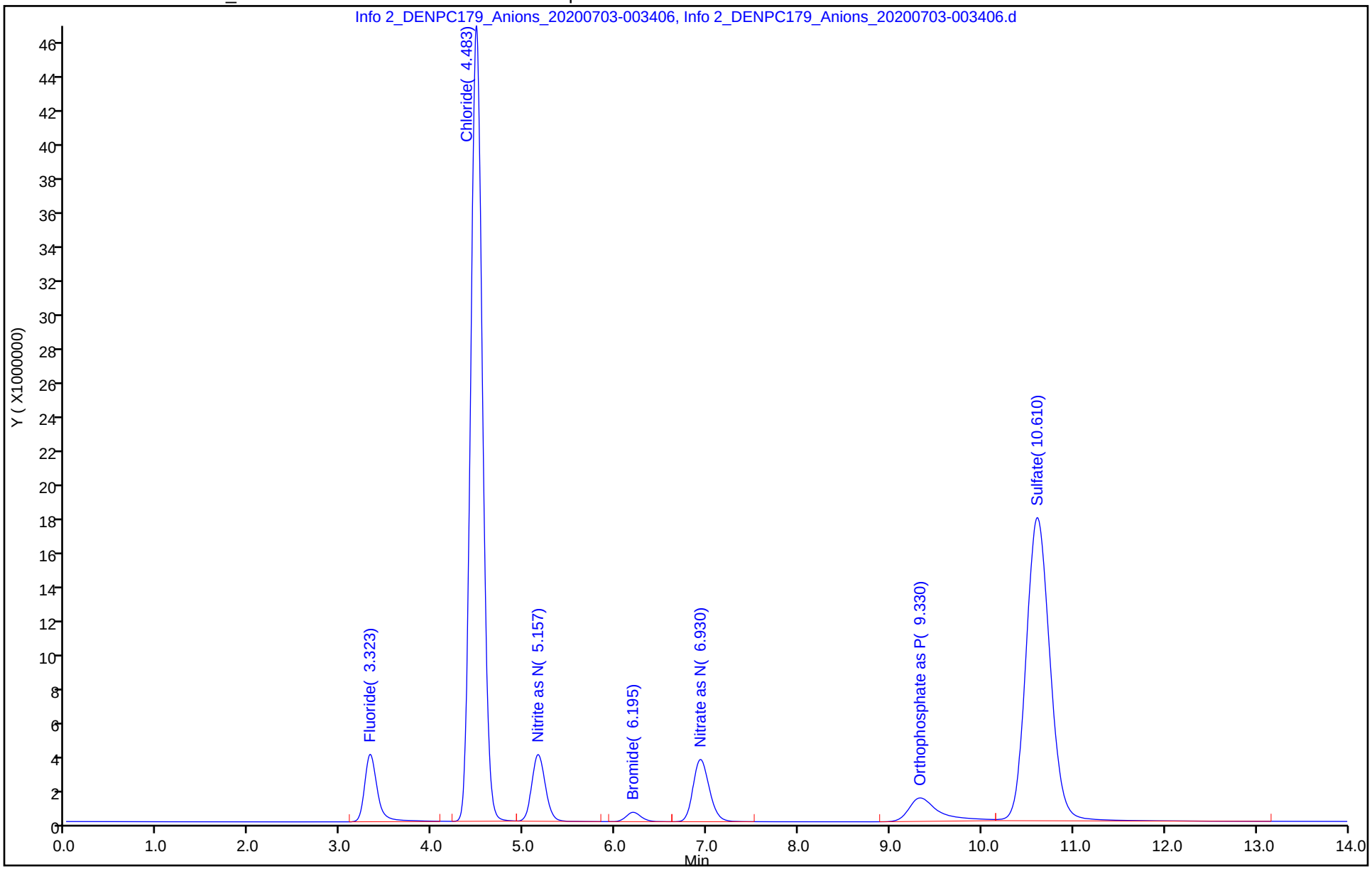
Reagents:

IC LCS_01747 Amount Added: 5.00 Units: mL

Report Date: 07-Jul-2020 09:49:18 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200703-003406.d				
Injection Date:	03-Jul-2020 00:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	38
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200703-0051				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-Jul-2020 00:34:00	ALS Bottle#:	0	Worklist Smp#:	39
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092983-039				
Misc. Info.:	280-0092983-039				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	07-Jul-2020 09:49:18	Calib Date:	01-Jul-2020 11:42:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200701-92933.b\Info 2_DENPC179_Anions_20200701-1200				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1060				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.313				ND	
2 Chloride	4.478	4.465	0.013	40721		0.5293	
3 Nitrite as N		5.140				ND	
4 Bromide		6.183				ND	
5 Nitrate as N		6.917				ND	
6 Orthophosphate as P	9.397	9.300	0.097	335087		NC	
7 Sulfate		10.580				ND	

QC Flag Legend

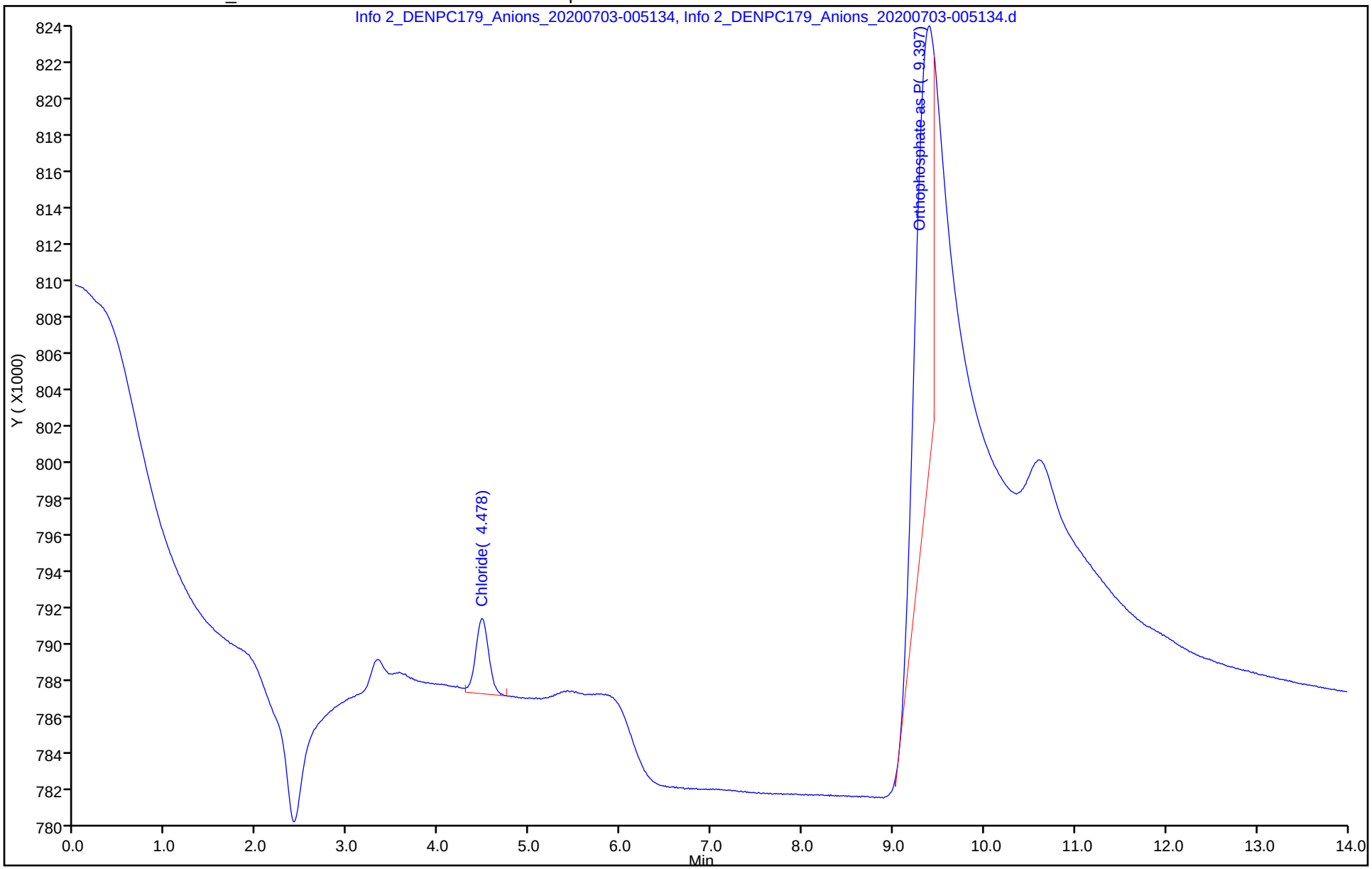
Processing Flags

NC - Not Calibrated

Report Date: 07-Jul-2020 09:49:19 Chrom Revision: 2.3 21-Jun-2020 18:30:46

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200702-92983.b\Info 2_DENPC179_Anions_20200703-005134.d				
Injection Date:	03-Jul-2020 00:34:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	39
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



	Analysis	Sample Name	Manua	pH Result	Notes	Status	Date / Time	Vial
1*	NPOC	icv	1.000	<2		Defined		1
2*	NPOC	icb	1.000	<2		Defined		2
3*	NPOC	LCS 280-500659/1-A	1.000	<2		Defined		3
4*	NPOC	LCSD 280-500659/2-A	1.000	<2		Defined		4
5*	NPOC	MB 280-500659/3-A	1.000	<2		Defined		5
6*	NPOC	tic	1.000	<2		Defined		6
7*	NPOC	200-53950-B-1-E	1.000	~~5~~ 6		Defined		7
8*	NPOC	200-53950-B-1-F MS	1.000	6		Defined		8
9*	NPOC	200-53950-B-1-G MSD	1.000	6		Defined		9
10*	NPOC	200-53950-B-2-A	1.000	~~5~~ 6		Defined		10
11*	NPOC	200-53950-B-3-A	1.000	~~5~~ 6		Defined		11
12*	NPOC	200-53950-B-4-A	1.000	~~5~~ 6		Defined		12
13*	NPOC	200-53950-B-5-A	1.000	5		Defined		13
14*	NPOC	200-53950-B-6-A	1.000	5		Defined		14
15*	NPOC	200-53950-B-18-A	1.000	5		Defined		15
16*	NPOC	ccv	1.000	<2		Defined		16
17*	NPOC	ccb 950-19	1.000	<2		Defined		17
18*	NPOC	~~200-53950-B 200-53950~~	1.000	4		Defined		18
19*	NPOC	200-53950-B-20-A SUB	1.000	5		Defined		19
20*	NPOC	200-53965-B-4-A 6/30/20	1.000	6		Defined		20
21*	NPOC	200-53950-B-21-A	1.000	6		Defined		21
22*	NPOC	200-53950-B-21-B MS	1.000	<2		Defined		22
23*	NPOC	200-53950-B-21-C MSD	1.000	<2		Defined		23
24*	NPOC	200-53965-B-6-A	1.000	6		Defined		24
25*	NPOC	200-53965-B-7-A	1.000	5		Defined		25
26*	NPOC	200-53965-B-5-B	1.000	5		Defined		26
27*	NPOC	200-53965-B-5-C MS	1.000	5		Defined		27
28*	NPOC	ccv	1.000	<2		Defined		28
29*	NPOC	ccb	1.000	<2		Defined		29
30*	NPOC	200-53965-B-5-D MSD	1.000	5		Defined		30
31*	NPOC	LCS 280-500659/25-A	1.000	<2		Defined		31
32*	NPOC	LCSD 280-500659/26-A	1.000	<2		Defined		32
33*	NPOC	MB 280-500659/27-A	1.000	<2		Defined		33
34*	NPOC	280-137736-D-9-A	1.000	6		Defined		34
35*	NPOC	280-137736-D-9-C MS	1.000	6		Defined		35
36*	NPOC	280-137736-D-9-D MSD	1.000	6		Defined		36
37*	NPOC	280-137736-D-3-A	1.000	7		Defined		37
38*	NPOC	280-137736-D-4-A	1.000	7		Defined		38
39*	NPOC	280-137736-D-5-A	1.000	7		Defined		39
40*	NPOC	ccv	1.000	<2		Defined		40
41*	NPOC	ccb	1.000	<2		Defined		41
42*	NPOC	280-137736-D-6-A	1.000	7		Defined		42
43*	NPOC	280-137736-D-7-A	1.000	7		Defined		43
44*	NPOC	280-137736-D-8-A	1.000	7		Defined		44
45*	NPOC	280-137736-D-10-A	1.000	7		Defined		45
46*	NPOC	280-137736-D-11-A	1.000	7		Defined		46
47*	NPOC	280-137736-D-12-A	1.000	7		Defined		47
48*	NPOC	280-137736-D-13-A	1.000	7		Defined		48
49*	NPOC	280-137736-D-13-B MS	1.000	7		Defined		49
50*	NPOC	280-137736-D-13-C MS	1.000	7		Defined		50
51*	NPOC	280-137736-D-14-A	1.000	7		Defined		51

	Analysis	Sample Name	Manua	pH Result	Notes	Status	Date / Time	Vial
52*	NPOC	ccv	1.000	<2		Defined		52
53*	NPOC	ccb	1.000	<2		Defined		53
54*	NPOC	280-137736-D-15-A	1.000	7		Defined		54
55*	NPOC	280-137736-D-16-A	1.000	7		Defined		55
56*	NPOC	280-137736-D-17-A	1.000	7		Defined		56
~~57*~~	~~NPOC~~	~~280-137609-D-24-C~~	1.000	7		Defined		57
58*	NPOC	280-137848-D-1-A	1.000	7		Defined		58
59*	NPOC	280-137848-D-2-A	1.000	7		Defined		59
60*	NPOC	280-137797-D-1-A	1.000	7		Defined		60
61*	NPOC	280-137797-D-2-A	1.000	7		Defined		61
62*	NPOC	ccv	1.000	<2		Defined		62
63*	NPOC	ccb	1.000	<2		Defined		63

<2

137686-D-2

	Analysis	Sample Name	Origin	Result	Notes	Status	Date / Time	Vial
1	NPOC	icv	NPOC.	NPOC:20.60m		Completed	7/2/2020 5:42:09 PM	1
2	NPOC	icb	NPOC.	NPOC:0.5905		Completed	7/2/2020 6:04:34 PM	2
3	NPOC	LCS 280-500659/1-A	NPOC.	NPOC:25.94m		Completed	7/2/2020 6:26:59 PM	3
4	NPOC	LCSD 280-500659/2-A	NPOC.	NPOC:25.39m		Completed	7/2/2020 6:49:25 PM	4
5	NPOC	MB 280-500659/3-A	NPOC.	NPOC:1.415m		Completed	7/2/2020 7:16:49 PM	5
6	NPOC	tic	NPOC.	NPOC:-0.1049		Completed	7/2/2020 7:43:51 PM	6
7	NPOC	200-53950-A-1-A	NPOC.	NPOC:5.844m		Completed	7/2/2020 8:06:16 PM	7
8	NPOC	200-53950-A-1-B MS	NPOC.	NPOC:33.46m		Completed	7/2/2020 8:28:56 PM	8
9	NPOC	200-53950-A-1-C MSD	NPOC.	NPOC:33.39m		Completed	7/2/2020 8:51:26 PM	9
10	NPOC	200-53950-A-2-A	NPOC.	NPOC:6.516m		Completed	7/2/2020 9:13:51 PM	10
11	NPOC	200-53950-B-3-A	NPOC.	NPOC:5.283m		Completed	7/2/2020 9:43:49 PM	11
12	NPOC	200-53950-A-4-A	NPOC.	NPOC:6.311m		Completed	7/2/2020 10:06:14 PM	12
13	NPOC	200-53950-B-5-A	NPOC.	NPOC:0.1846		Completed	7/2/2020 10:28:39 PM	13
14	NPOC	200-53950-B-6-A	NPOC.	NPOC:0.04102		Completed	7/2/2020 10:51:04 PM	14
15	NPOC	200-53950-B-18-A	NPOC.	NPOC:-0.0684		Completed	7/2/2020 11:13:29 PM	15
16	NPOC	ccv	NPOC.	NPOC:26.01m		Completed	7/2/2020 11:36:30 PM	16
17	NPOC	ccb	NPOC.	NPOC:0.4133		Completed	7/2/2020 11:58:55 PM	17
18	NPOC	200-53950-A-19-A	NPOC.	NPOC:0.5007		Completed	7/3/2020 12:21:20 AM	18
19	NPOC	200-53950-A-20-A	NPOC.	NPOC:6.610m		Completed	7/3/2020 12:43:45 AM	19
20	NPOC	200-53965-B-4-B	NPOC.	NPOC:8.114m		Completed	7/3/2020 1:06:10 AM	20
21	NPOC	200-53950-A-21-A	NPOC.	NPOC:6.210m		Completed	7/3/2020 1:28:35 AM	21
22	NPOC	200-53950-A-21-B MS	NPOC.	NPOC:33.66m		Completed	7/3/2020 1:51:43 AM	22
23	NPOC	200-53950-A-21-C MSD	NPOC.	NPOC:33.49m		Completed	7/3/2020 2:14:34 AM	23
24	NPOC	200-53965-B-6-A	NPOC.	NPOC:0.02133		Completed	7/3/2020 2:41:36 AM	24
25	NPOC	200-53965-B-7-A	NPOC.	NPOC:0.1294		Completed	7/3/2020 3:04:01 AM	25
26	NPOC	200-53965-B-5-B	NPOC.	NPOC:8.150m		Completed	7/3/2020 3:26:26 AM	26
27	NPOC	200-53965-B-5-C MS	NPOC.	NPOC:36.03m		Completed	7/3/2020 3:49:26 AM	27
28	NPOC	ccv	NPOC.	NPOC:26.65m		Completed	7/3/2020 4:12:37 AM	28
29	NPOC	ccb	NPOC.	NPOC:-0.0190		Completed	7/3/2020 4:35:03 AM	29
30	NPOC	200-53965-B-5-D MSD	NPOC.	NPOC:35.05m		Completed	7/3/2020 4:57:45 AM	30
31	NPOC	LCS 280-500659/25-A	NPOC.	NPOC:26.97m		Completed	7/3/2020 5:20:23 AM	31
32	NPOC	LCSD 280-500659/26-A	NPOC.	NPOC:27.20m		Completed	7/3/2020 5:43:10 AM	32
33	NPOC	MB 280-500659/27-A	NPOC.	NPOC:-0.1022		Completed	7/3/2020 6:05:36 AM	33
34	NPOC	280-137736-D-9-A	NPOC.	NPOC:2.050m		Completed	7/3/2020 6:28:01 AM	34
35	NPOC	280-137736-D-9-C MS	NPOC.	NPOC:29.40m		Completed	7/3/2020 6:51:24 AM	35
36	NPOC	280-137736-D-9-D MSD	NPOC.	NPOC:30.04m		Completed	7/3/2020 7:14:43 AM	36
37	NPOC	280-137736-D-3-A	NPOC.	NPOC:3.608m		Completed	7/3/2020 7:37:09 AM	37
38	NPOC	280-137736-D-4-A	NPOC.	NPOC:5.439m		Completed	7/3/2020 7:59:35 AM	38
39	NPOC	280-137736-D-5-A	NPOC.	NPOC:7.382m		Completed	7/3/2020 8:26:38 AM	39
40	NPOC	ccv	NPOC.	NPOC:27.55m		Completed	7/3/2020 8:49:14 AM	40
41	NPOC	ccb	NPOC.	NPOC:1.222m		Completed	7/3/2020 9:11:40 AM	41
42	NPOC	280-137736-D-6-A	NPOC.	NPOC:4.523m		Completed	7/3/2020 9:34:06 AM	42
43	NPOC	280-137736-D-7-A	NPOC.	NPOC:4.480m		Completed	7/3/2020 9:56:32 AM	43
44	NPOC	280-137736-D-8-A	NPOC.	NPOC:3.448m		Completed	7/3/2020 10:18:58 AM	44
45	NPOC	280-137736-D-10-A	NPOC.	NPOC:6.441m		Completed	7/3/2020 10:41:24 AM	45
46	NPOC	280-137736-D-11-A	NPOC.	NPOC:3.408m		Completed	7/3/2020 11:03:50 AM	46
47	NPOC	280-137736-D-12-A	NPOC.	NPOC:2.887m		Completed	7/3/2020 11:26:16 AM	47
48	NPOC	280-137736-D-13-A	NPOC.	NPOC:6.251m		Completed	7/3/2020 11:48:42 AM	48
49	NPOC	280-137736-D-13-B MS	NPOC.	NPOC:33.20m		Completed	7/3/2020 12:11:45 PM	49
50	NPOC	280-137736-D-13-C MSD	NPOC.	NPOC:34.29m		Completed	7/3/2020 12:34:52 PM	50
51	NPOC	280-137736-D-14-A	NPOC.	NPOC:4.003m		Completed	7/3/2020 12:57:18 PM	51
52	NPOC	ccv	NPOC.	NPOC:27.35m		Completed	7/3/2020 1:20:16 PM	52
53	NPOC	ccb	NPOC.	NPOC:-0.0276		Completed	7/3/2020 1:42:42 PM	53

	Analysis	Sample Name	Origin	Result	Notes	Status	Date / Time	Vial
54	NPOC	280-137736-D-15-A	NPOC.	NPOC:3.801m		Completed	7/3/2020 2:05:08 PM	54
55	NPOC	280-137736-D-16-A	NPOC.	NPOC:5.424m		Completed	7/3/2020 2:27:34 PM	55
56	NPOC	280-137736-D-17-A	NPOC.	NPOC:3.568m		Completed	7/3/2020 2:50:01 PM	56
57	NPOC	280-137848-D-1-A	NPOC.	NPOC:4.047m		Completed	7/3/2020 3:12:28 PM	57
58	NPOC	280-137848-D-2-A	NPOC.	NPOC:3.638m		Completed	7/3/2020 3:34:55 PM	58
59	NPOC	280-137797-D-1-A	NPOC.	NPOC:6.311m		Completed	7/3/2020 3:57:22 PM	59
60	NPOC	280-137797-D-2-A	NPOC.	NPOC:5.114m		Completed	7/3/2020 4:19:49 PM	60
61	NPOC	280-137686-D-2-A	NPOC.	NPOC:0.3971		Completed	7/3/2020 4:42:16 PM	61
62	NPOC	ccv	NPOC.	NPOC:27.10m		Completed	7/3/2020 5:05:00 PM	62
63	NPOC	ccb	NPOC.	NPOC:0.4236		Completed	7/3/2020 5:27:46 PM	63

TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥NPOC.2020_06_15_14_56_20.cal

Date of Creation 4:11:58 PM 6/15/2020
User sgb
System TOC-V CPN

Cal. Curve

Sample Name: cal
Sample ID:
Object ID 0A-100612-04635090-1343CA723828-0000
Cal. Curve: NPOC.2020_06_15_14_56_20.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.6345	50uL	1	*******	E	6/15/2020 3:05:05 PM
2	2.558	50uL	1	*******		6/15/2020 3:07:11 PM
3	2.840	50uL	1	*******	E	6/15/2020 3:09:22 PM
4	2.342	50uL	1	*******		6/15/2020 3:11:28 PM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 2.450
SD Area 0.1527
CV Area 6.23%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.629	50uL	1	*******	E	6/15/2020 3:19:57 PM
2	6.139	50uL	1	*******		6/15/2020 3:22:03 PM
3	4.772	50uL	1	*******	E	6/15/2020 3:24:09 PM
4	6.011	50uL	1	*******		6/15/2020 3:26:14 PM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 6.075
SD Area 0.09051
CV Area 1.49%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.91	50uL	1	*******	E	6/15/2020 3:34:55 PM
2	16.89	50uL	1	*******		6/15/2020 3:37:01 PM
3	16.43	50uL	1	*******		6/15/2020 3:39:07 PM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 16.66
SD Area 0.3253
CV Area 1.95%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.12	50uL	1	*******		6/15/2020 3:47:50 PM
2	32.65	50uL	1	*******		6/15/2020 3:49:56 PM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 32.89
SD Area 0.3323
CV Area 1.01%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.57	50uL	1	*******		6/15/2020 3:58:49 PM
2	78.98	50uL	1	*******		6/15/2020 4:00:59 PM

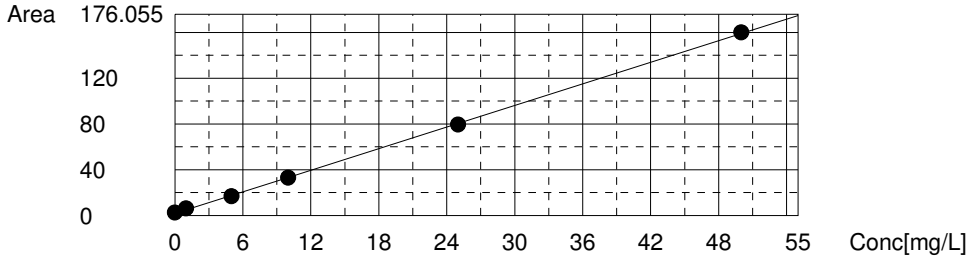
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 79.28
SD Area 0.4172
CV Area 0.53%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	159.6	50uL	1	*******		6/15/2020 4:09:45 PM
2	160.5	50uL	1	*******		6/15/2020 4:11:58 PM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 160.1
SD Area 0.6364
CV Area 0.40%
Vial 6

Slope: 3.149
Intercept 1.799
r^2 0.9997
r 0.9999
Zero Shift No



Instr.Information

System	TOC-V CPN
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	icv
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

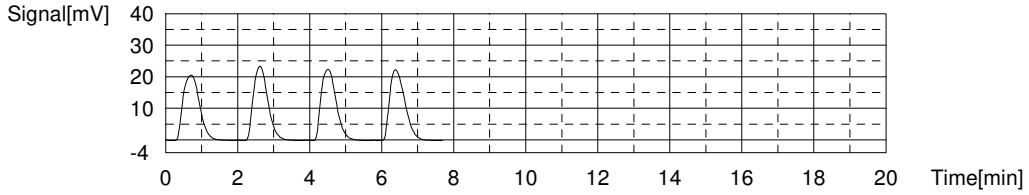
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.75	20.62mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:28:15 PM
2	66.57	20.57mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:32:52 PM
3	66.48	20.54mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:37:29 PM
4	66.89	20.67mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:42:09 PM

Mean Area	66.67
Mean Conc.	20.60mg/L



Sample

Sample Name:	icb
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

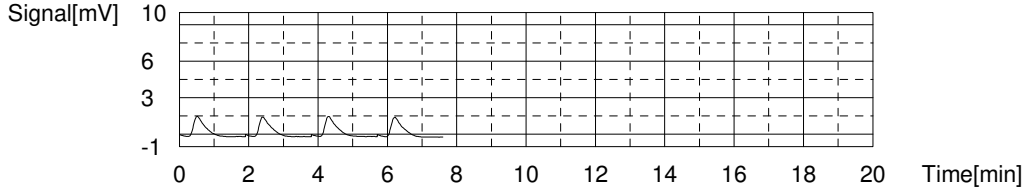
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.801	0.6356mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:50:43 PM
2	3.579	0.5652mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:55:20 PM
3	3.650	0.5877mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 5:59:57 PM
4	3.605	0.5734mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:04:34 PM

Mean Area	3.659
Mean Conc.	0.5905mg/L



Sample

Sample Name: LCS 280-500659/1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

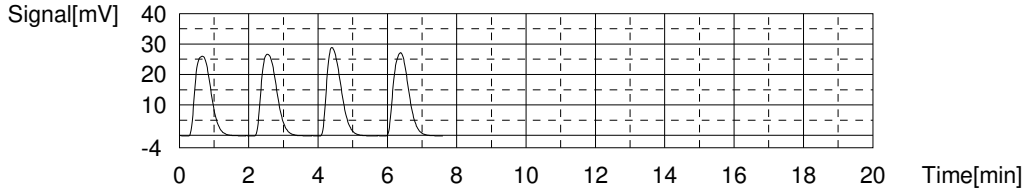
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.43	25.92mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:13:08 PM
2	83.50	25.94mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:17:45 PM
3	83.44	25.92mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:22:22 PM
4	83.66	25.99mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:26:59 PM

Mean Area 83.51
Mean Conc. 25.94mg/L



Sample

Sample Name: LCSD 280-500659/2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

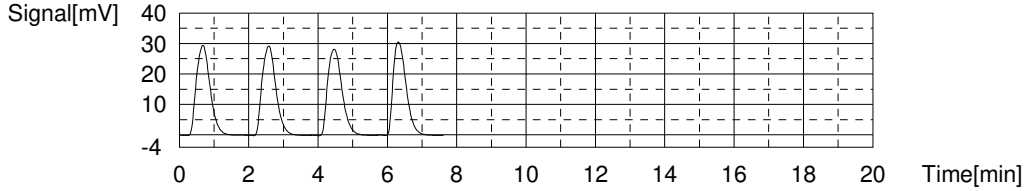
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.25	25.54mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:35:32 PM
2	81.89	25.43mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:40:10 PM
3	82.33	25.57mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:44:47 PM
4	80.64	25.03mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:49:25 PM

Mean Area 81.78
Mean Conc. 25.39mg/L



Sample

Sample Name: MB 280-500659/3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

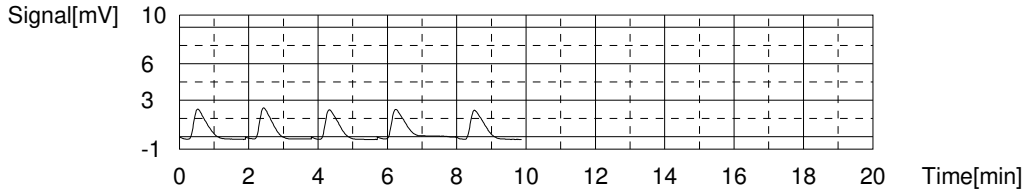
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.415mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.311	1.433mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 6:57:59 PM
2	6.180	1.391mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:02:36 PM
3	6.175	1.389mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:07:13 PM
4	7.019	1.657mg/L	50uL	1	E	NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:12:12 PM
5	6.350	1.445mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:16:49 PM

Mean Area 6.254
Mean Conc. 1.415mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

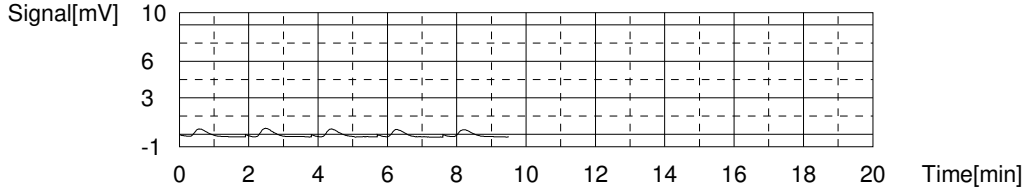
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.488	-0.09877mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:25:23 PM
2	1.723	-0.02415mg/L	50uL	1	E	NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:30:00 PM
3	1.582	-0.06892mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:34:37 PM
4	1.361	-0.1391mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:39:14 PM
5	1.444	-0.1127mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:43:51 PM

Mean Area 1.469
Mean Conc. -0.1049mg/L



Sample

Sample Name: 200-53950-A-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

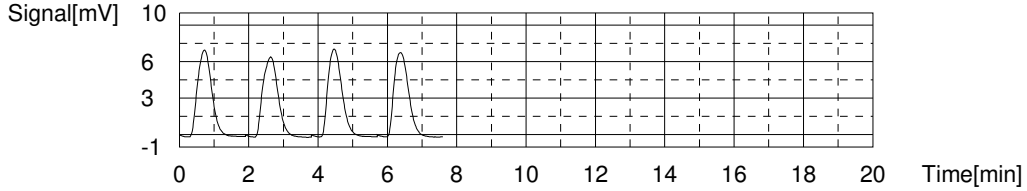
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.844mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.38	5.900mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:52:25 PM
2	20.03	5.789mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 7:57:02 PM
3	20.17	5.833mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:01:39 PM
4	20.24	5.855mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:06:16 PM

Mean Area 20.21
Mean Conc. 5.844mg/L



Sample

Sample Name: 200-53950-A-1-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

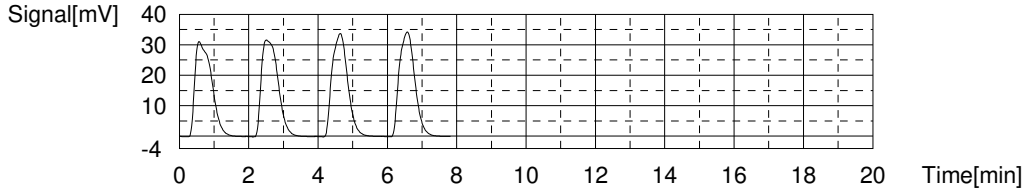
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.3	32.86mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:14:50 PM
2	107.5	33.56mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:19:33 PM
3	107.4	33.53mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:24:12 PM
4	108.5	33.88mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:28:56 PM

Mean Area 107.2
Mean Conc. 33.46mg/L



Sample

Sample Name: 200-53950-A-1-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

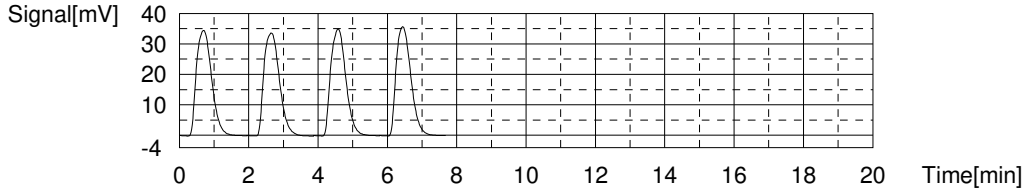
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	107.0	33.40mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:37:33 PM
2	106.4	33.21mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:42:11 PM
3	107.4	33.53mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:46:48 PM
4	107.1	33.43mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 8:51:26 PM

Mean Area 107.0
Mean Conc. 33.39mg/L



Sample

Sample Name: 200-53950-A-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

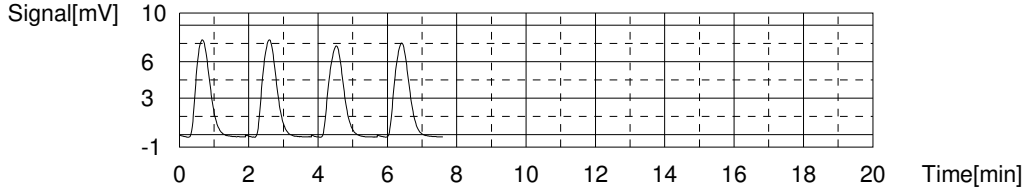
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.516mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.16	6.465mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:00:00 PM
2	22.59	6.601mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:04:37 PM
3	22.13	6.455mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:09:14 PM
4	22.40	6.541mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:13:51 PM

Mean Area 22.32
Mean Conc. 6.516mg/L



Sample

Sample Name: 200-53950-B-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

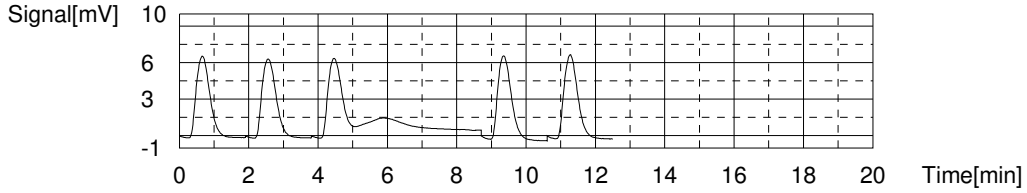
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.283mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.23	5.217mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:22:24 PM
2	18.28	5.233mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:27:01 PM
3	32.56	9.767mg/L	50uL	1	E	NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:34:38 PM
4	18.37	5.262mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:39:12 PM
5	18.87	5.420mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:43:49 PM

Mean Area 18.44
Mean Conc. 5.283mg/L



Sample

Sample Name: 200-53950-A-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

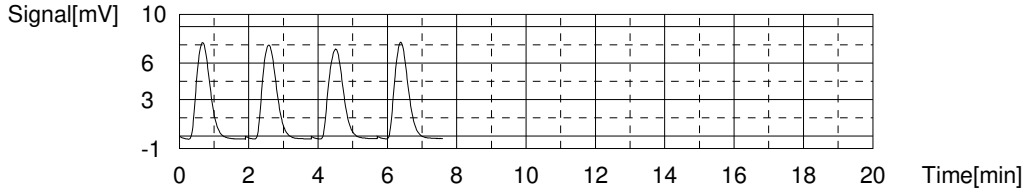
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.311mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.63	6.297mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:52:23 PM
2	21.78	6.344mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 9:57:00 PM
3	21.65	6.303mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:01:37 PM
4	21.64	6.300mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:06:14 PM

Mean Area 21.68
Mean Conc. 6.311mg/L



Sample

Sample Name: 200-53950-B-5-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

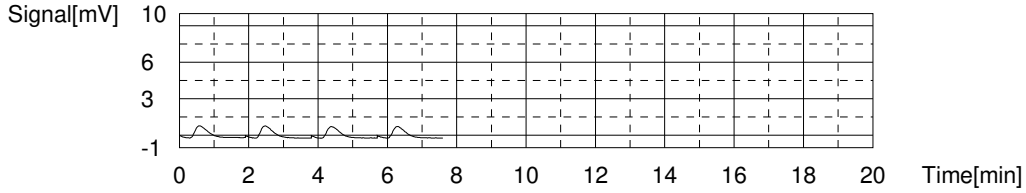
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1846mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.493	0.2203mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:14:48 PM
2	2.376	0.1832mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:19:25 PM
3	2.351	0.1752mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:24:02 PM
4	2.302	0.1597mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:28:39 PM

Mean Area 2.381
Mean Conc. 0.1846mg/L



Sample

Sample Name: 200-53950-B-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

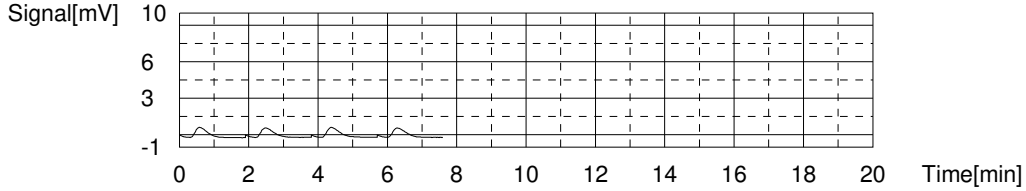
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04102mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.917	0.03744mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:37:13 PM
2	1.901	0.03236mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:41:50 PM
3	2.006	0.06570mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:46:27 PM
4	1.889	0.02855mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:51:04 PM

Mean Area 1.928
Mean Conc. 0.04102mg/L



Sample

Sample Name: 200-53950-B-18-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

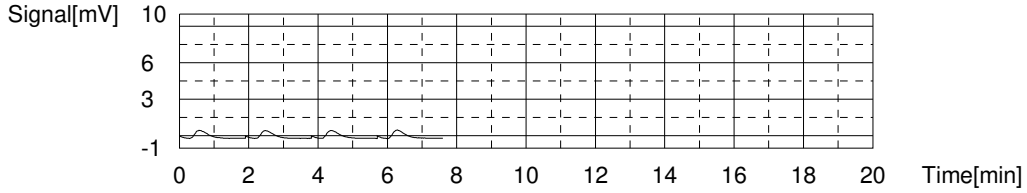
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.06845mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.660	-0.04416mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 10:59:38 PM
2	1.529	-0.08575mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:04:15 PM
3	1.553	-0.07813mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:08:52 PM
4	1.592	-0.06575mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:13:29 PM

Mean Area 1.583
Mean Conc. -0.06845mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

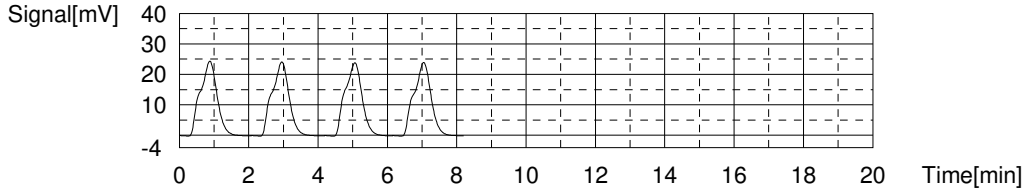
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.01mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.25	26.18mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:22:13 PM
2	84.00	26.10mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:27:03 PM
3	82.90	25.75mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:31:44 PM
4	83.74	26.02mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:36:30 PM

Mean Area 83.72
Mean Conc. 26.01mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

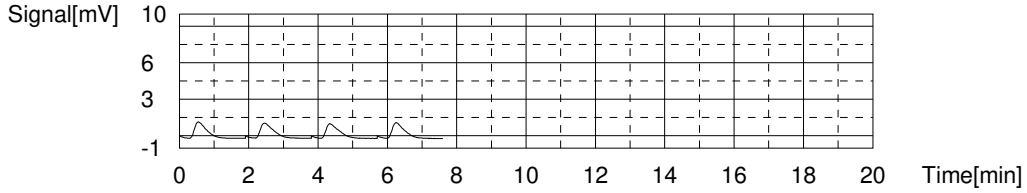
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4133mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.149	0.4286mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:45:04 PM
2	3.154	0.4302mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:49:41 PM
3	3.029	0.3905mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:54:18 PM
4	3.071	0.4039mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/2/2020 11:58:55 PM

Mean Area 3.101
Mean Conc. 0.4133mg/L



Sample

Sample Name: 200-53950-A-19-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

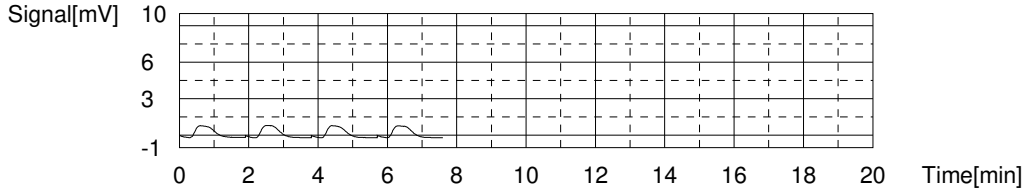
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5007mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.366	0.4975mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:07:29 AM
2	3.381	0.5023mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:12:06 AM
3	3.400	0.5083mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:16:43 AM
4	3.357	0.4947mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:21:20 AM

Mean Area 3.376
Mean Conc. 0.5007mg/L



Sample

Sample Name: 200-53950-A-20-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

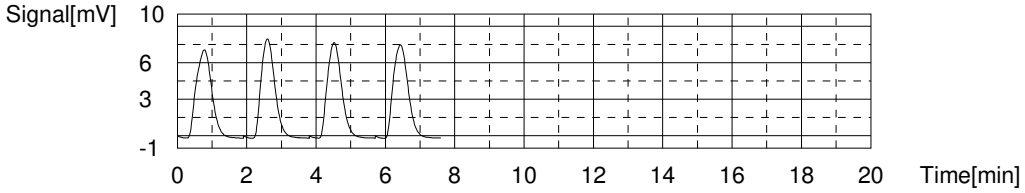
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.610mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.68	6.630mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:29:54 AM
2	22.41	6.544mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:34:31 AM
3	22.54	6.586mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:39:08 AM
4	22.84	6.681mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:43:45 AM

Mean Area 22.62
Mean Conc. 6.610mg/L



Sample

Sample Name: 200-53965-B-4-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

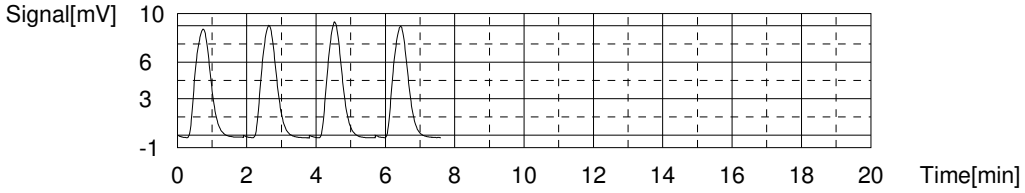
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.114mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.37	8.119mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:52:19 AM
2	27.37	8.119mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:56:56 AM
3	27.48	8.154mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:01:33 AM
4	27.20	8.065mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:06:10 AM

Mean Area 27.36
Mean Conc. 8.114mg/L



Sample

Sample Name: 200-53950-A-21-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

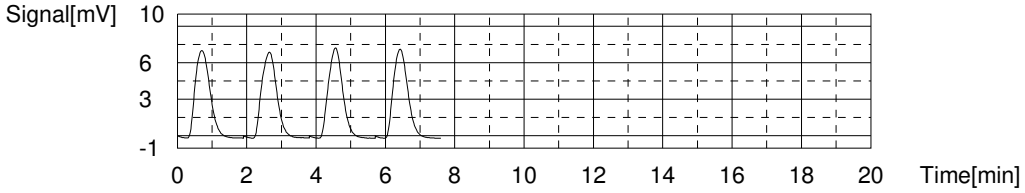
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.210mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.35	6.208mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:14:44 AM
2	21.26	6.179mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:19:21 AM
3	21.50	6.255mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:23:58 AM
4	21.32	6.198mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:28:35 AM

Mean Area 21.36
Mean Conc. 6.210mg/L



Sample

Sample Name: 200-53950-A-21-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

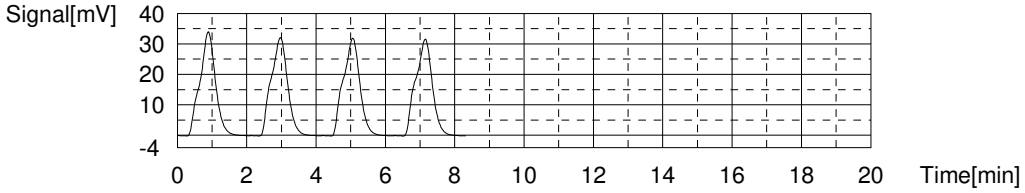
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	108.0	33.72mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:37:21 AM
2	107.9	33.69mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:42:08 AM
3	107.9	33.69mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:46:56 AM
4	107.4	33.53mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:51:43 AM

Mean Area 107.8
Mean Conc. 33.66mg/L



Sample

Sample Name: 200-53950-A-21-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

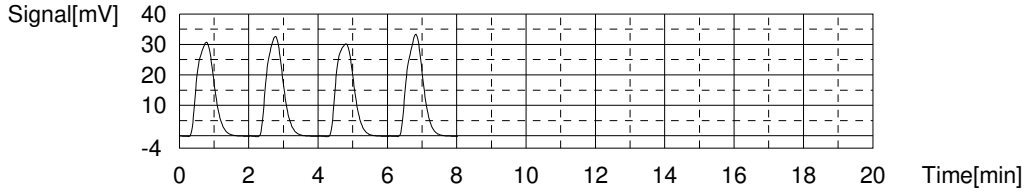
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	106.2	33.15mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:00:23 AM
2	107.7	33.63mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:05:07 AM
3	107.4	33.53mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:09:51 AM
4	107.8	33.66mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:14:34 AM

Mean Area 107.3
Mean Conc. 33.49mg/L



Sample

Sample Name: 200-53965-B-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

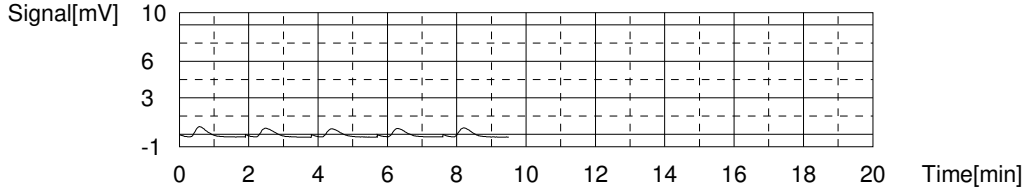
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02133mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.962	0.05173mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:23:08 AM
2	1.897	0.03109mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:27:45 AM
3	1.733	-0.02098mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:32:22 AM
4	1.699	-0.03177mg/L	50uL	1	E	NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:36:59 AM
5	1.873	0.02347mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:41:36 AM

Mean Area 1.866
Mean Conc. 0.02133mg/L



Sample

Sample Name: 200-53965-B-7-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

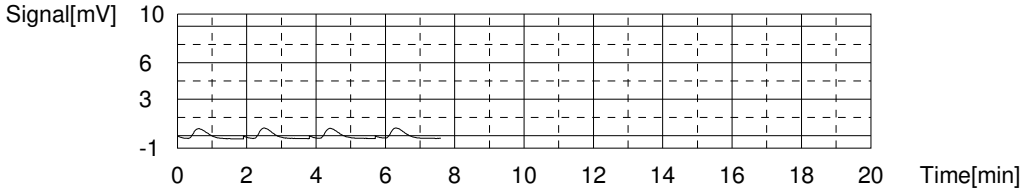
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1294mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.166	0.1165mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:50:10 AM
2	2.248	0.1425mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:54:47 AM
3	2.187	0.1232mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:59:24 AM
4	2.226	0.1356mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:04:01 AM

Mean Area 2.207
Mean Conc. 0.1294mg/L



Sample

Sample Name: 200-53965-B-5-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

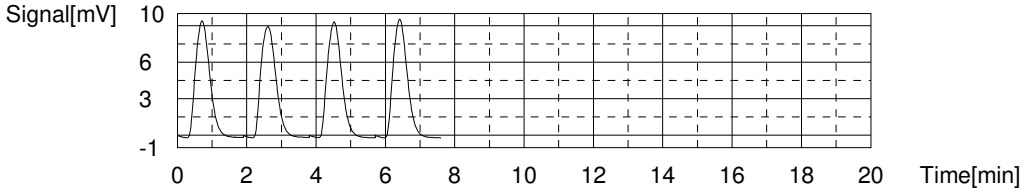
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.150mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.40	8.129mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:12:35 AM
2	27.35	8.113mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:17:12 AM
3	27.46	8.148mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:21:49 AM
4	27.66	8.211mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:26:26 AM

Mean Area 27.47
Mean Conc. 8.150mg/L



Sample

Sample Name: 200-53965-B-5-C MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

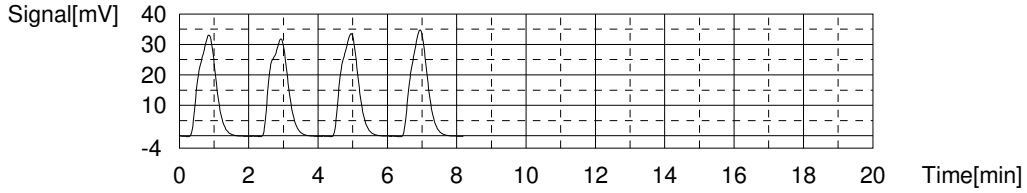
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	114.6	35.82mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:35:11 AM
2	114.8	35.88mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:39:56 AM
3	116.1	36.29mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:44:39 AM
4	115.6	36.13mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:49:26 AM

Mean Area 115.3
Mean Conc. 36.03mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

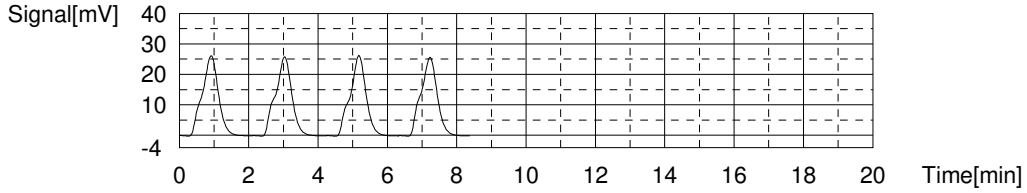
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.65mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.45	26.88mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:58:13 AM
2	86.24	26.81mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:03:04 AM
3	85.22	26.49mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:07:52 AM
4	85.07	26.44mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:12:37 AM

Mean Area 85.74
Mean Conc. 26.65mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

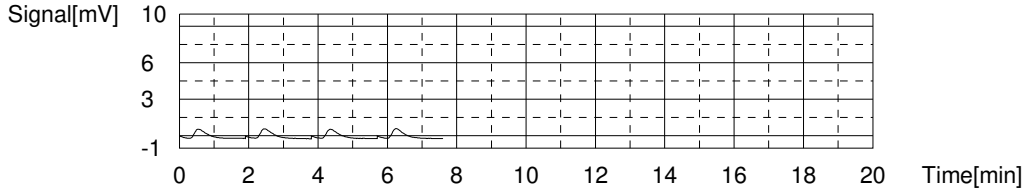
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.01907mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.733	-0.02098mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:21:11 AM
2	1.771	-0.00891mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:25:49 AM
3	1.700	-0.03146mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:30:26 AM
4	1.752	-0.01494mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:35:03 AM

Mean Area 1.739
Mean Conc. -0.01907mg/L



Sample

Sample Name: 200-53965-B-5-D MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

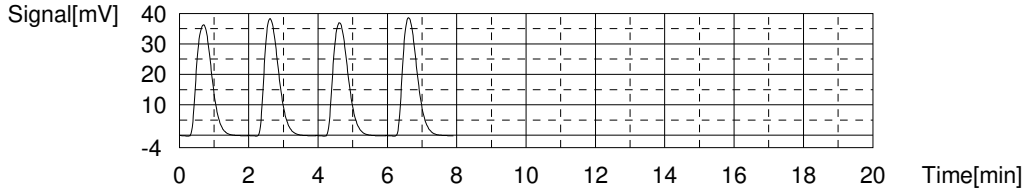
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:35.05mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	112.0	34.99mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:43:40 AM
2	111.0	34.67mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:48:21 AM
3	112.9	35.28mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:53:05 AM
4	112.8	35.24mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:57:45 AM

Mean Area 112.2
Mean Conc. 35.05mg/L



Sample

Sample Name: LCS 280-500659/25-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

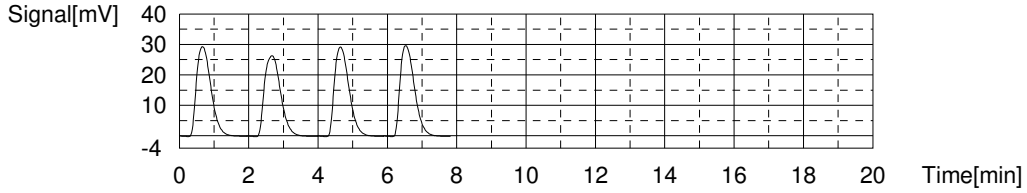
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.88	27.01mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:06:22 AM
2	86.56	26.91mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:11:07 AM
3	86.60	26.93mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:15:44 AM
4	86.98	27.05mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:20:23 AM

Mean Area 86.76
Mean Conc. 26.97mg/L



Sample

Sample Name: LCSD 280-500659/26-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

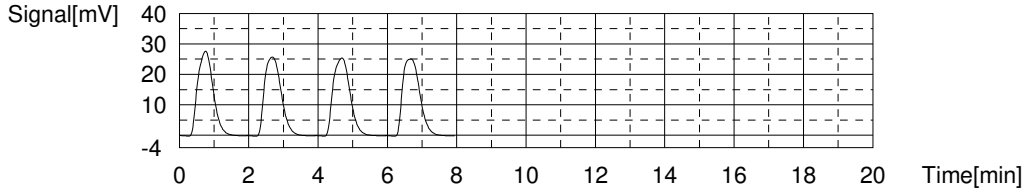
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.20mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.33	27.16mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:29:02 AM
2	87.41	27.18mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:33:43 AM
3	87.35	27.16mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:38:28 AM
4	87.82	27.31mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:43:10 AM

Mean Area 87.48
Mean Conc. 27.20mg/L



Sample

Sample Name: MB 280-500659/27-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

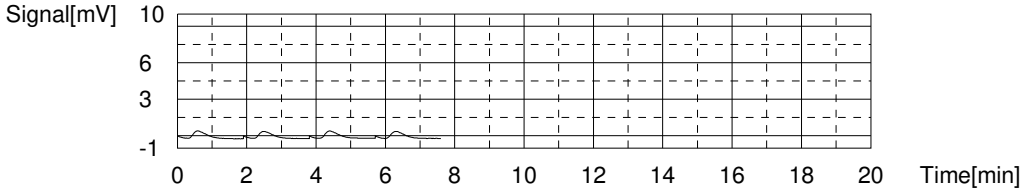
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1022mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.515	-0.09020mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:51:45 AM
2	1.449	-0.1112mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:56:22 AM
3	1.480	-0.1013mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:00:59 AM
4	1.465	-0.1061mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:05:36 AM

Mean Area 1.477
Mean Conc. -0.1022mg/L



Sample

Sample Name: 280-137736-D-9-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

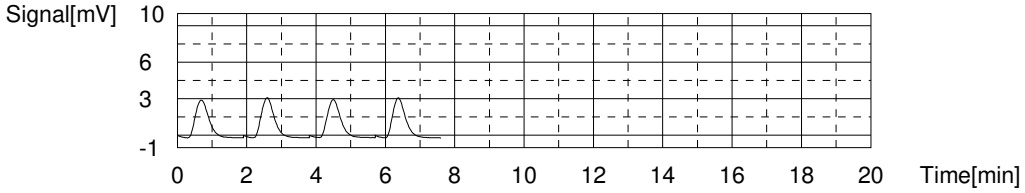
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.050mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.248	2.048mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:14:11 AM
2	8.424	2.104mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:18:48 AM
3	8.118	2.006mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:23:25 AM
4	8.227	2.041mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:28:01 AM

Mean Area 8.254
Mean Conc. 2.050mg/L



Sample

Sample Name: 280-137736-D-9-C MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

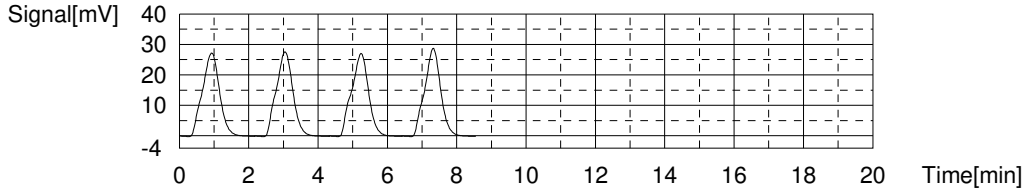
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	95.44	29.73mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:36:52 AM
2	93.78	29.21mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:41:44 AM
3	93.88	29.24mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:46:33 AM
4	94.49	29.43mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 6:51:24 AM

Mean Area 94.40
Mean Conc. 29.40mg/L



Sample

Sample Name: 280-137736-D-9-D MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

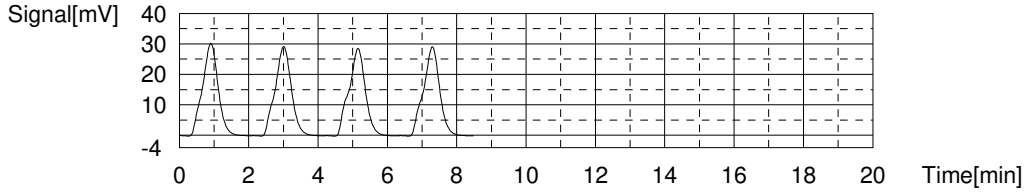
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	96.67	30.12mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:00:11 AM
2	96.94	30.21mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:05:01 AM
3	95.92	29.88mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:09:52 AM
4	96.14	29.95mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:14:43 AM

Mean Area 96.42
Mean Conc. 30.04mg/L



Sample

Sample Name: 280-137736-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

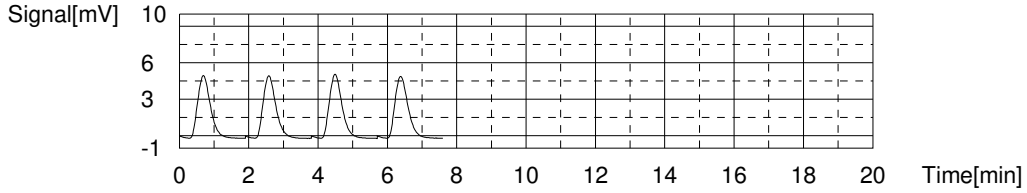
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.608mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.09	3.585mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:23:18 AM
2	13.03	3.566mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:27:55 AM
3	13.29	3.649mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:32:32 AM
4	13.24	3.633mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:37:09 AM

Mean Area 13.16
Mean Conc. 3.608mg/L



Sample

Sample Name: 280-137736-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

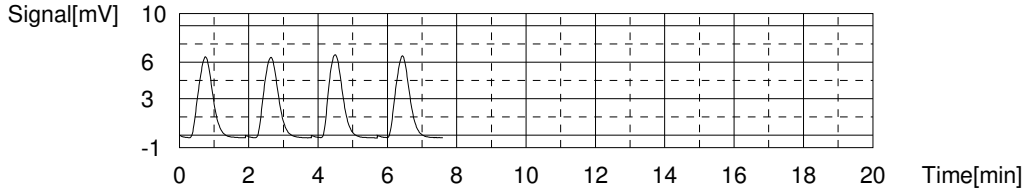
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.439mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.05	5.477mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:45:44 AM
2	19.09	5.490mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:50:21 AM
3	18.84	5.411mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:54:58 AM
4	18.74	5.379mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 7:59:35 AM

Mean Area 18.93
Mean Conc. 5.439mg/L



Sample

Sample Name: 280-137736-D-5-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

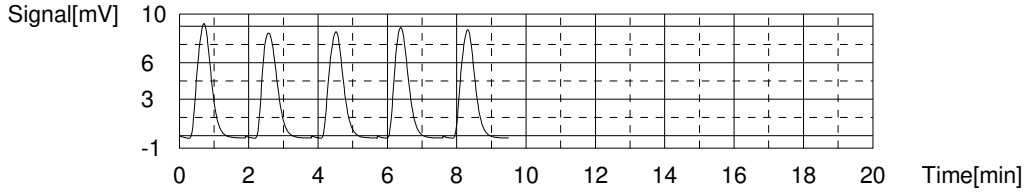
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.382mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.12	7.722mg/L	50uL	1	E	NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:08:10 AM
2	25.23	7.440mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:12:47 AM
3	25.01	7.370mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:17:24 AM
4	25.02	7.373mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:22:01 AM
5	24.93	7.344mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:26:38 AM

Mean Area 25.05
Mean Conc. 7.382mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

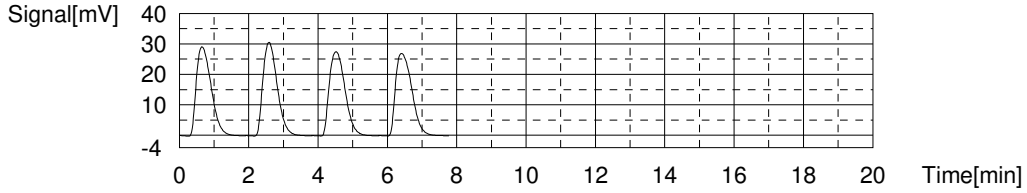
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.55mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.13	27.41mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:35:13 AM
2	88.95	27.67mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:39:51 AM
3	88.08	27.40mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:44:30 AM
4	89.05	27.70mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:49:14 AM

Mean Area 88.55
Mean Conc. 27.55mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

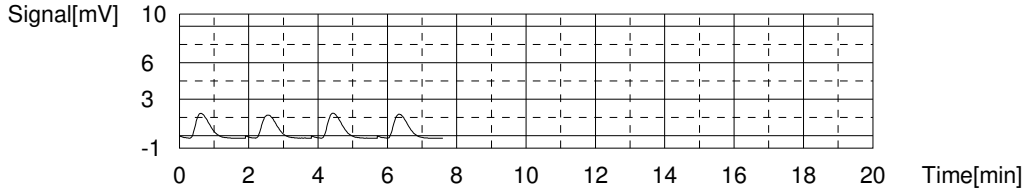
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.222mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.665	1.227mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 8:57:49 AM
2	5.591	1.204mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:02:26 AM
3	5.779	1.264mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:07:03 AM
4	5.551	1.191mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:11:40 AM

Mean Area 5.646
Mean Conc. 1.222mg/L



Sample

Sample Name: 280-137736-D-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

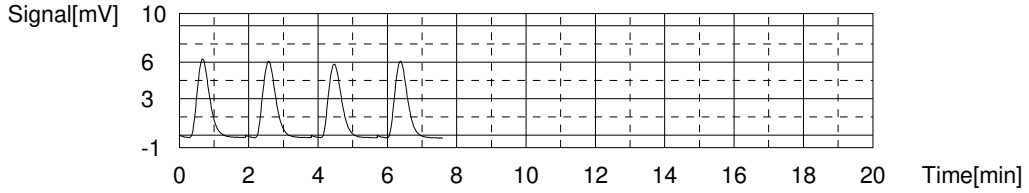
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.523mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.10	4.541mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:20:15 AM
2	16.19	4.569mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:24:52 AM
3	15.78	4.439mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:29:29 AM
4	16.10	4.541mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:34:06 AM

Mean Area 16.04
Mean Conc. 4.523mg/L



Sample

Sample Name: 280-137736-D-7-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

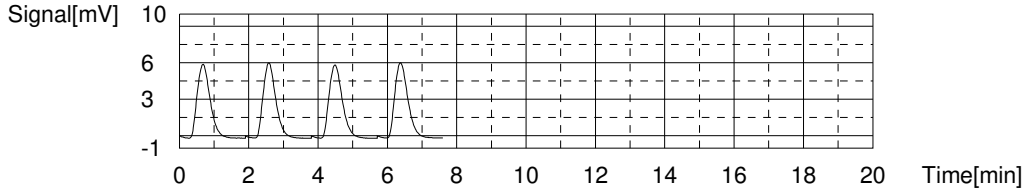
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.480mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.78	4.439mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:42:41 AM
2	15.61	4.385mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:47:18 AM
3	16.01	4.512mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:51:55 AM
4	16.24	4.585mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 9:56:32 AM

Mean Area 15.91
Mean Conc. 4.480mg/L



Sample

Sample Name: 280-137736-D-8-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

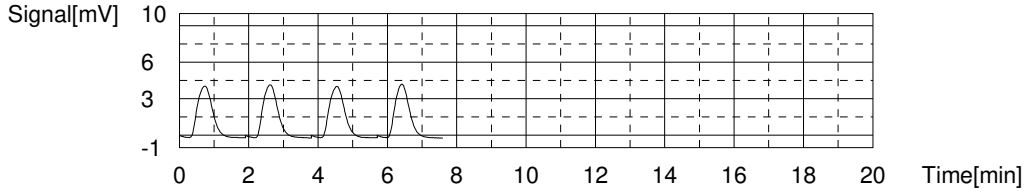
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.448mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.67	3.452mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:05:07 AM
2	12.71	3.464mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:09:44 AM
3	12.69	3.458mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:14:21 AM
4	12.56	3.417mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:18:58 AM

Mean Area 12.66
Mean Conc. 3.448mg/L



Sample

Sample Name: 280-137736-D-10-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

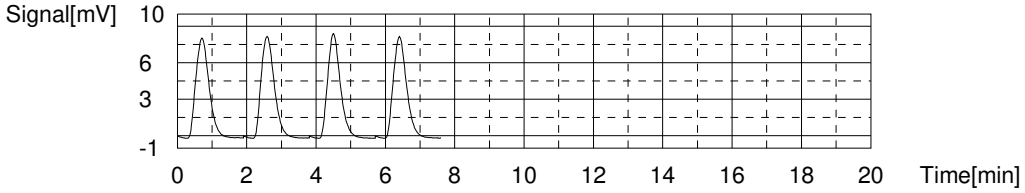
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.441mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.98	6.408mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:27:33 AM
2	22.24	6.490mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:32:10 AM
3	21.99	6.411mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:36:47 AM
4	22.13	6.455mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:41:24 AM

Mean Area 22.09
Mean Conc. 6.441mg/L



Sample

Sample Name: 280-137736-D-11-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

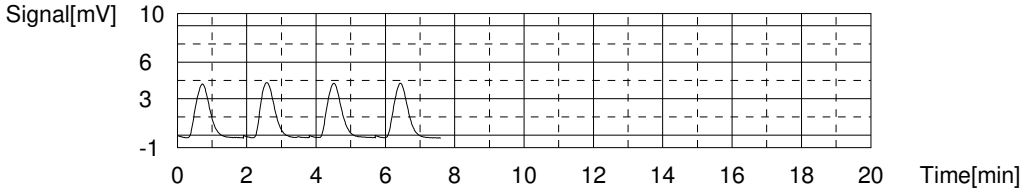
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.408mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.42	3.372mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:49:59 AM
2	12.60	3.429mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:54:36 AM
3	12.60	3.429mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 10:59:13 AM
4	12.51	3.401mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:03:50 AM

Mean Area 12.53
Mean Conc. 3.408mg/L



Sample

Sample Name: 280-137736-D-12-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

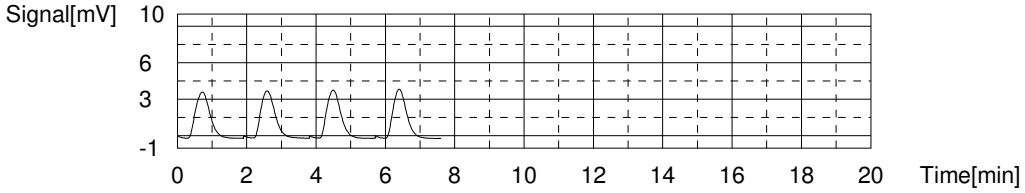
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.887mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.94	2.902mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:12:25 AM
2	10.82	2.864mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:17:02 AM
3	10.99	2.918mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:21:39 AM
4	10.82	2.864mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:26:16 AM

Mean Area 10.89
Mean Conc. 2.887mg/L



Sample

Sample Name: 280-137736-D-13-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

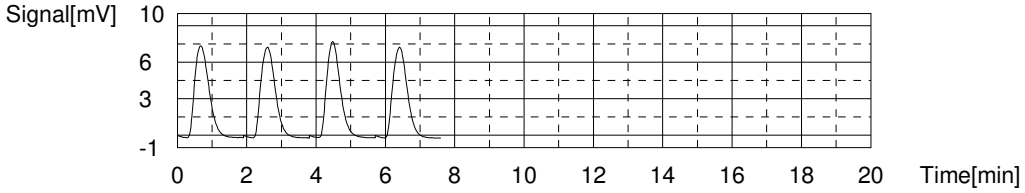
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.251mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.72	6.325mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:34:51 AM
2	21.47	6.246mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:39:28 AM
3	21.41	6.227mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:44:05 AM
4	21.35	6.208mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:48:42 AM

Mean Area 21.49
Mean Conc. 6.251mg/L



Sample

Sample Name: 280-137736-D-13-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

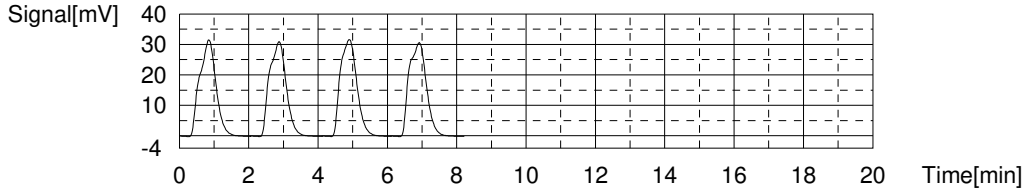
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.20mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.1	32.80mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 11:57:26 AM
2	105.5	32.93mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:02:13 PM
3	106.6	33.28mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:06:55 PM
4	108.2	33.78mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:11:45 PM

Mean Area 106.4
Mean Conc. 33.20mg/L



Sample

Sample Name: 280-137736-D-13-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

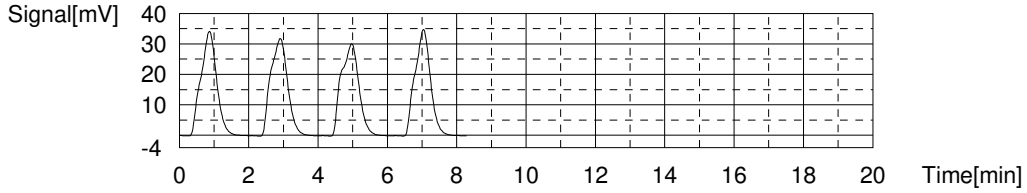
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:34.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	110.1	34.39mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:20:30 PM
2	110.1	34.39mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:25:15 PM
3	108.8	33.97mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:30:04 PM
4	110.2	34.42mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:34:52 PM

Mean Area 109.8
Mean Conc. 34.29mg/L



Sample

Sample Name: 280-137736-D-14-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

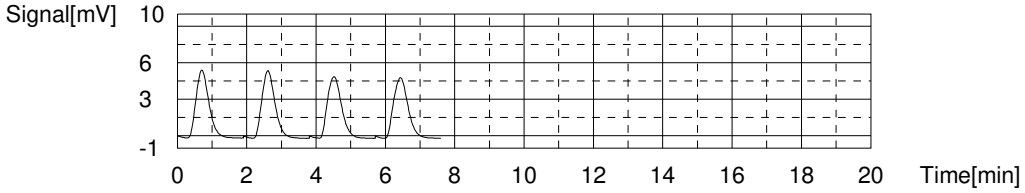
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.003mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.44	4.014mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:43:27 PM
2	14.55	4.049mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:48:04 PM
3	14.22	3.944mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:52:41 PM
4	14.42	4.007mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 12:57:18 PM

Mean Area 14.41
Mean Conc. 4.003mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

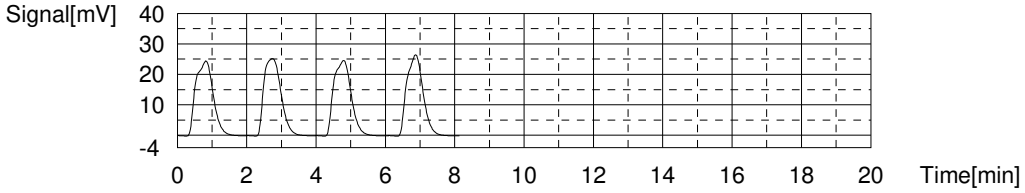
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.49	27.21mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:05:59 PM
2	88.33	27.47mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:10:41 PM
3	87.89	27.34mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:15:30 PM
4	88.05	27.39mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:20:16 PM

Mean Area 87.94
Mean Conc. 27.35mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

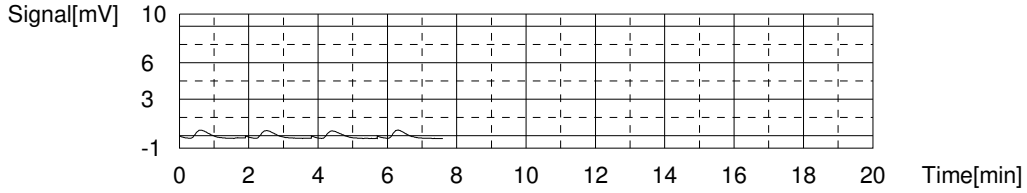
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.02765mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.789	-0.00320mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:28:51 PM
2	1.674	-0.03971mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:33:28 PM
3	1.689	-0.03495mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:38:05 PM
4	1.696	-0.03273mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:42:42 PM

Mean Area 1.712
Mean Conc. -0.02765mg/L



Sample

Sample Name: 280-137736-D-15-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

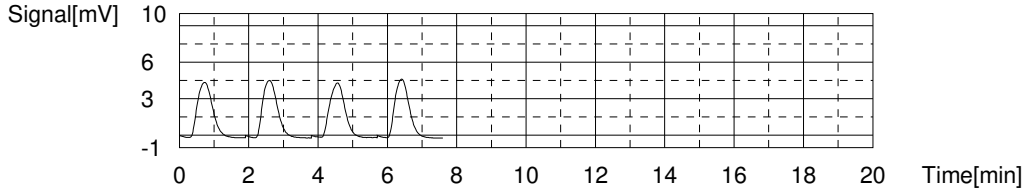
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.801mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.82	3.817mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:51:17 PM
2	13.89	3.839mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 1:55:54 PM
3	13.47	3.706mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:00:31 PM
4	13.90	3.842mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:05:08 PM

Mean Area 13.77
Mean Conc. 3.801mg/L



Sample

Sample Name: 280-137736-D-16-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

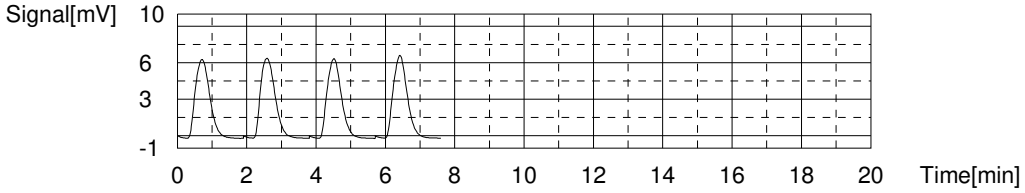
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.424mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.80	5.398mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:13:43 PM
2	19.04	5.474mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:18:20 PM
3	18.68	5.360mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:22:57 PM
4	19.01	5.465mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:27:34 PM

Mean Area 18.88
Mean Conc. 5.424mg/L



Sample

Sample Name: 280-137736-D-17-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

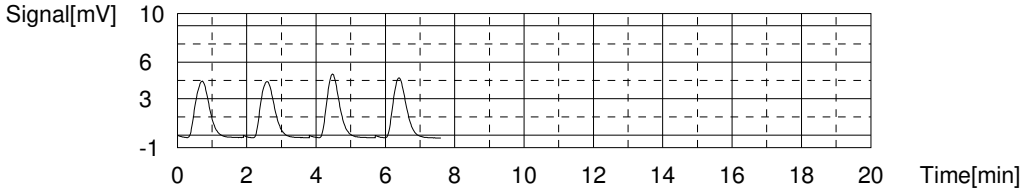
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.568mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.99	3.553mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:36:10 PM
2	12.84	3.506mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:40:47 PM
3	13.23	3.629mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:45:24 PM
4	13.08	3.582mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:50:01 PM

Mean Area 13.04
Mean Conc. 3.568mg/L



Sample

Sample Name: 280-137848-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

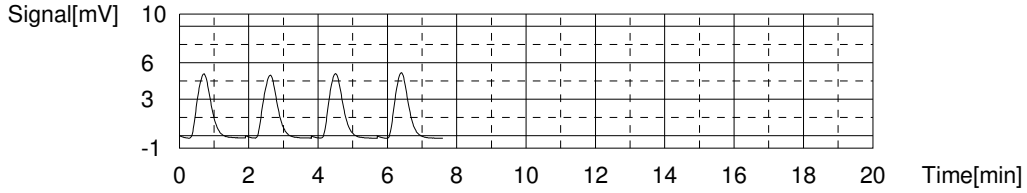
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.047mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.56	4.052mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 2:58:37 PM
2	14.46	4.020mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:03:14 PM
3	14.69	4.093mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:07:51 PM
4	14.47	4.023mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:12:28 PM

Mean Area 14.55
Mean Conc. 4.047mg/L



Sample

Sample Name: 280-137848-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

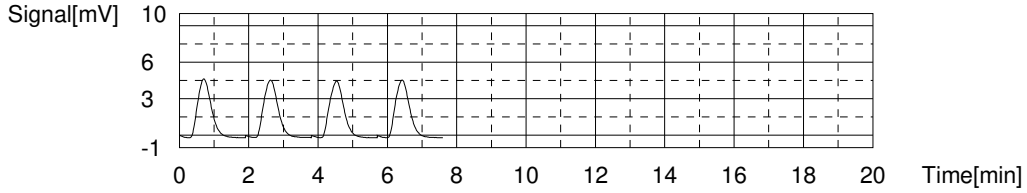
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.638mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.13	3.598mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:21:04 PM
2	13.43	3.693mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:25:41 PM
3	13.26	3.639mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:30:18 PM
4	13.21	3.623mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:34:55 PM

Mean Area 13.26
Mean Conc. 3.638mg/L



Sample

Sample Name: 280-137797-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

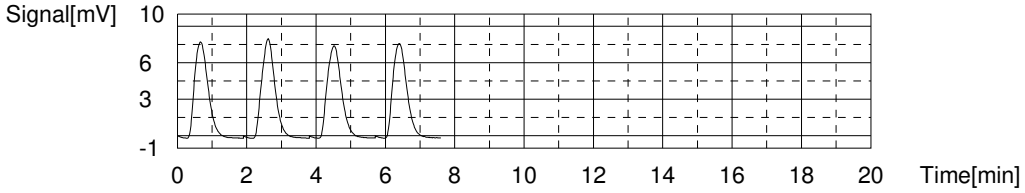
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.311mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.38	6.217mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:43:31 PM
2	21.80	6.351mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:48:08 PM
3	21.76	6.338mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:52:45 PM
4	21.76	6.338mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 3:57:22 PM

Mean Area 21.68
Mean Conc. 6.311mg/L



Sample

Sample Name: 280-137797-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

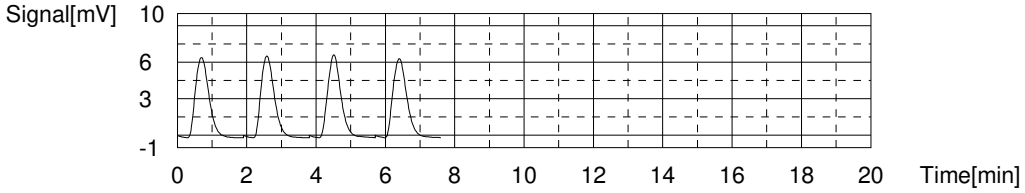
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.114mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.90	5.112mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:05:58 PM
2	17.84	5.093mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:10:35 PM
3	17.97	5.135mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:15:12 PM
4	17.91	5.115mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:19:49 PM

Mean Area 17.91
Mean Conc. 5.114mg/L



Sample

Sample Name: 280-137686-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

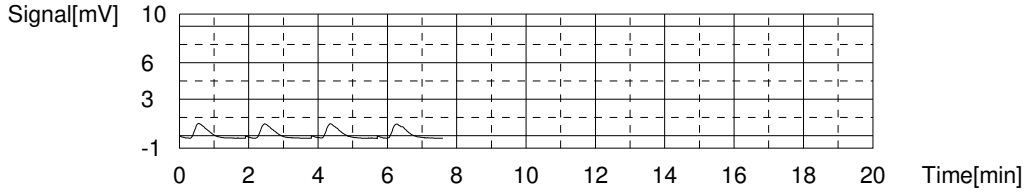
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3971mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.039	0.3937mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:28:25 PM
2	3.077	0.4058mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:33:02 PM
3	2.967	0.3708mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:37:39 PM
4	3.116	0.4181mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:42:16 PM

Mean Area 3.050
Mean Conc. 0.3971mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

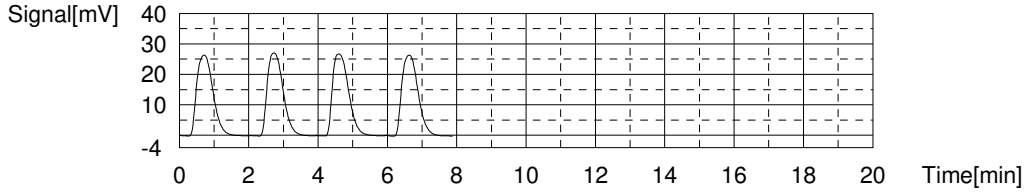
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.14	27.10mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:51:00 PM
2	87.13	27.09mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 4:55:37 PM
3	87.39	27.18mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:00:19 PM
4	87.00	27.05mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:05:00 PM

Mean Area 87.17
Mean Conc. 27.10mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

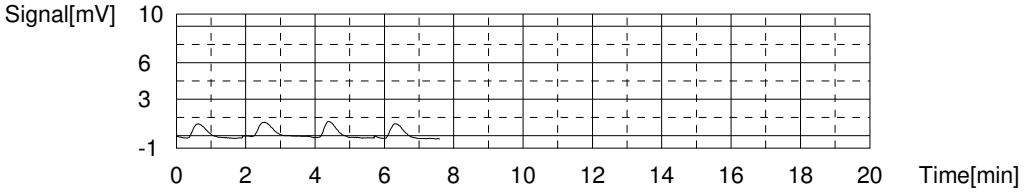
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4236mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.083	0.4077mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:13:36 PM
2	3.146	0.4277mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:18:32 PM
3	3.195	0.4432mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:23:09 PM
4	3.109	0.4159mg/L	50uL	1		NPOC.2020_06_15_14_56_20.cal	7/3/2020 5:27:46 PM

Mean Area	3.133
Mean Conc.	0.4236mg/L



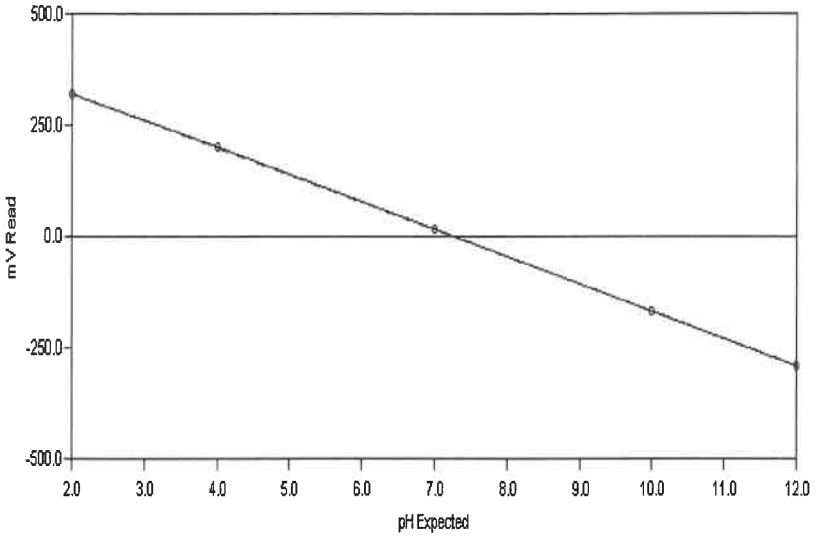
MANTECH

MANTECH INC.

Calibration Report

Report Date: 6/22/2020 : 12:18 PM

Calibration Record # 140



Calibration Settings

Calibration ID	PH	Date	6/22/2020	
Channel	1	Time	12:02 PM	
Probe Type	pH	Temperature	295.41 K	22.26 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-61.129	CorrCoeff	1.0000
Intercept	15.258	Equation:	Y = (-61.129) X + (15.258)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-61.129	-65.00	-53.00
Intercept	15.258	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	**Standard**	**Reading**
	2.00	320.67
	4.00	198.85
	7.00	15.38
	10.00	-168.09
	12.00	-290.52

Test America
Water Analysis Report

AT4 Analyst:_____

Run Number 440 **Order Number** 20200622-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	6/22/2020	1:32 PM	21.73	-1.00	5.22	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	6/22/2020	1:38 PM	21.54	-1.00	10.64	94.36	174.91	.00	161.11	13.80	.94	1.75	-1.00	.02
BUFFER 7	6/22/2020	1:41 PM	21.56	-1.00	7.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	6/22/2020	1:48 PM	21.58	-1.00	10.65	95.02	182.12	.00	174.20	7.91	.95	1.82	-1.00	.02
MB	6/22/2020	1:53 PM	21.77	-1.00	6.96	.00	.63	.63	.00	.00	.00	.02	.04	.02
280-137769-c-2	6/22/2020	1:59 PM	21.60	-1.00	7.87	.00	236.85	236.85	.00	.00	.00	2.37	-1.00	.02
DU 280-137769-c-2	6/22/2020	2:05 PM	21.54	-1.00	7.86	.00	245.30	245.30	.00	.00	.00	2.45	-1.00	.02
280-137769-c-3	6/22/2020	2:11 PM	21.50	-1.00	7.43	.00	241.36	241.36	.00	.00	.00	2.41	-1.00	.02
280-137765-g-1	6/22/2020	2:18 PM	21.58	-1.00	7.99	.00	241.59	241.59	.00	.00	.00	2.42	-1.00	.02
280-137765-g-3	6/22/2020	2:24 PM	21.77	-1.00	7.69	.00	183.57	183.57	.00	.00	.00	1.84	-1.00	.02
280-137765-g-5	6/22/2020	2:30 PM	22.11	-1.00	7.68	.00	190.31	190.31	.00	.00	.00	1.90	-1.00	.02
280-137768-c-1	6/22/2020	2:36 PM	21.89	-1.00	8.51	9.72	365.20	345.77	19.43	.00	.10	3.65	-1.00	.02
280-137768-c-2	6/22/2020	2:43 PM	21.71	-1.00	8.40	5.98	392.52	380.56	11.97	.00	.06	3.93	-1.00	.02
280-137768-c-3	6/22/2020	2:49 PM	21.67	-1.00	8.20	.00	316.04	316.04	.00	.00	.00	3.16	-1.00	.02
280-137768-c-4	6/22/2020	2:56 PM	21.73	-1.00	8.20	.00	316.40	316.40	.00	.00	.00	3.16	-1.00	.02
CCV	6/22/2020	3:03 PM	21.61	-1.00	10.63	100.63	190.92	.00	180.57	10.35	1.01	1.91	-1.00	.02
CCB	6/22/2020	3:08 PM	21.87	-1.00	6.89	.00	.65	.65	.00	.00	.00	.02	.04	.02
280-137768-c-5	6/22/2020	3:14 PM	21.89	-1.00	8.22	.00	418.38	418.38	.00	.00	.00	4.18	-1.00	.02
280-137773-a-1	6/22/2020	3:21 PM	21.98	-1.00	7.64	.00	568.92	568.92	.00	.00	.00	5.69	-1.00	.02
280-137773-a-2	6/22/2020	3:28 PM	22.03	-1.00	7.07	.00	481.10	481.10	.00	.00	.00	4.81	-1.00	.02
280-137773-a-3	6/22/2020	3:35 PM	22.13	-1.00	6.92	.00	511.16	511.16	.00	.00	.00	5.11	-1.00	.02
280-137773-a-4	6/22/2020	3:42 PM	22.29	-1.00	7.02	.00	729.72	729.72	.00	.00	.00	7.30	-1.00	.02
280-137772-a-2	6/22/2020	3:49 PM	22.54	-1.00	7.86	.00	120.82	120.82	.00	.00	.00	1.21	-1.00	.02
280-137772-a-3	6/22/2020	3:54 PM	22.34	-1.00	7.84	.00	126.90	126.90	.00	.00	.00	1.27	-1.00	.02
280-137772-a-4	6/22/2020	4:00 PM	22.17	-1.00	7.90	.00	120.71	120.71	.00	.00	.00	1.21	-1.00	.02
280-137772-a-5	6/22/2020	4:06 PM	22.08	-1.00	7.85	.00	120.78	120.78	.00	.00	.00	1.21	-1.00	.02
280-137815-e-1	6/22/2020	4:12 PM	22.05	-1.00	7.69	.00	331.60	331.60	.00	.00	.00	3.32	-1.00	.02

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Run Number 440 **Order Number** 20200622-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL)@ 8.3	(mL)@ 4.5	(mL)@4.2	Conc (N)
CCV	6/22/2020	4:18 PM	21.92	-1.00	10.60	98.59	189.15	.00	181.13	8.02	.99	1.89	-1.00	.02
CCB	6/22/2020	4:24 PM	22.16	-1.00	6.84	.00	.66	.66	.00	.00	.00	.02	.04	.02
LCS	6/22/2020	4:30 PM	22.05	-1.00	10.60	93.11	181.43	.00	176.63	4.80	.93	1.81	-1.00	.02
MB	6/22/2020	4:35 PM	22.25	-1.00	6.92	.00	.49	.49	.00	.00	.00	.02	.04	.02
280-137815-e-2	6/22/2020	4:42 PM	22.32	-1.00	7.53	.00	269.79	269.79	.00	.00	.00	2.70	-1.00	.02
DU 280-137815-e-2	6/22/2020	4:48 PM	22.52	-1.00	7.53	.00	267.44	267.44	.00	.00	.00	2.67	-1.00	.02
280-137815-e-3	6/22/2020	4:54 PM	22.74	-1.00	7.65	.00	139.55	139.55	.00	.00	.00	1.40	-1.00	.02
280-137797-f-1	6/22/2020	4:59 PM	22.74	-1.00	6.99	.00	186.51	186.51	.00	.00	.00	1.87	-1.00	.02
280-137797-f-2	6/22/2020	5:05 PM	22.52	-1.00	6.92	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-137848-f-1	6/22/2020	5:10 PM	22.43	-1.00	6.67	.00	95.63	95.63	.00	.00	.00	.96	-1.00	.02
280-137848-f-2	6/22/2020	5:16 PM	22.31	-1.00	7.03	.00	277.96	277.96	.00	.00	.00	2.78	-1.00	.02
280-137860-c-1	6/22/2020	5:25 PM	22.10	-1.00	9.35	215.60	1,371.57	940.37	431.19	.00	2.16	13.72	-1.00	.02
280-137860-c-2	6/22/2020	5:34 PM	22.05	-1.00	8.88	89.32	1,289.39	1,110.74	178.65	.00	.89	12.89	-1.00	.02
280-137832-a-1	6/22/2020	5:41 PM	22.22	-1.00	7.39	.00	467.67	467.67	.00	.00	.00	4.68	-1.00	.02
CCV	6/22/2020	5:47 PM	22.16	-1.00	10.56	94.71	185.61	.00	181.79	3.81	.95	1.86	-1.00	.02
CCB	6/22/2020	5:52 PM	22.34	-1.00	6.90	.00	.59	.59	.00	.00	.00	.02	.04	.02
280-137832-a-2	6/22/2020	5:58 PM	22.37	-1.00	6.40	.00	141.57	141.57	.00	.00	.00	1.42	-1.00	.02
280-137832-a-3	6/22/2020	6:03 PM	22.48	-1.00	5.97	.00	42.08	42.08	.00	.00	.00	.42	-1.00	.02
280-137832-a-4	6/22/2020	6:09 PM	22.78	-1.00	7.42	.00	302.97	302.97	.00	.00	.00	3.03	-1.00	.02
280-137832-a-5	6/22/2020	6:16 PM	22.64	-1.00	7.40	.00	522.04	522.04	.00	.00	.00	5.22	-1.00	.02
280-137872-a-1	6/22/2020	6:22 PM	22.52	-1.00	7.42	.00	204.45	204.45	.00	.00	.00	2.04	-1.00	.02
280-137872-a-2	6/22/2020	6:28 PM	22.45	-1.00	7.38	.00	270.30	270.30	.00	.00	.00	2.70	-1.00	.02
280-137872-a-3	6/22/2020	6:34 PM	22.35	-1.00	7.50	.00	373.25	373.25	.00	.00	.00	3.73	-1.00	.02
280-137874-a-1	6/22/2020	6:41 PM	22.35	-1.00	7.34	.00	353.12	353.12	.00	.00	.00	3.53	-1.00	.02
280-137874-a-2	6/22/2020	6:48 PM	22.35	-1.00	7.18	.00	672.16	672.16	.00	.00	.00	6.72	-1.00	.02
280-137874-a-3	6/22/2020	6:54 PM	22.37	-1.00	7.37	.00	383.54	383.54	.00	.00	.00	3.84	-1.00	.02
280-137874-a-4	6/22/2020	7:01 PM	22.35	-1.00	7.25	.00	390.30	390.30	.00	.00	.00	3.90	-1.00	.02
280-137874-a-5	6/22/2020	7:07 PM	22.35	-1.00	7.16	.00	512.56	512.56	.00	.00	.00	5.13	-1.00	.02
LCS	6/22/2020	7:14 PM	22.34	-1.00	10.52	91.91	183.59	.00	183.35	.24	.92	1.84	-1.00	.02
MB	6/22/2020	7:19 PM	22.54	-1.00	6.72	.00	.55	.55	.00	.00	.00	.02	.04	.02

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Run Number 440 **Order Number** 20200622-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-137875-a-1	6/22/2020	7:25 PM	22.70	-1.00	7.47	.00	252.12	252.12	.00	.00	.00	2.52	-1.00	.02
DU 280-137875-a-1	6/22/2020	7:31 PM	22.61	-1.00	7.41	.00	251.92	251.92	.00	.00	.00	2.52	-1.00	.02
280-137875-a-2	6/22/2020	7:37 PM	22.55	-1.00	7.48	.00	177.91	177.91	.00	.00	.00	1.78	-1.00	.02
280-137875-a-3	6/22/2020	7:43 PM	22.52	-1.00	7.29	.00	149.77	149.77	.00	.00	.00	1.50	-1.00	.02
280-137875-a-4	6/22/2020	7:49 PM	22.52	-1.00	7.48	.00	162.79	162.79	.00	.00	.00	1.63	-1.00	.02
280-137875-a-5	6/22/2020	7:55 PM	22.45	-1.00	7.45	.00	176.51	176.51	.00	.00	.00	1.77	-1.00	.02
280-137875-a-6	6/22/2020	8:00 PM	22.42	-1.00	6.75	.00	124.39	124.39	.00	.00	.00	1.24	-1.00	.02
280-137875-a-7	6/22/2020	8:06 PM	22.40	-1.00	7.14	.00	138.82	138.82	.00	.00	.00	1.39	-1.00	.02
280-137875-a-8	6/22/2020	8:11 PM	22.39	-1.00	7.45	.00	159.01	159.01	.00	.00	.00	1.59	-1.00	.02
280-137875-a-9	6/22/2020	8:17 PM	22.37	-1.00	7.20	.00	161.30	161.30	.00	.00	.00	1.61	-1.00	.02
CCV	6/22/2020	8:24 PM	22.32	-1.00	10.49	92.38	187.61	2.85	184.77	.00	.92	1.88	-1.00	.02
CCB	6/22/2020	8:29 PM	22.81	-1.00	6.78	.00	.59	.59	.00	.00	.00	.02	.04	.02
280-137875-a-10	6/22/2020	8:35 PM	22.80	-1.00	7.67	.00	179.97	179.97	.00	.00	.00	1.80	-1.00	.02
280-137875-a-11	6/22/2020	8:41 PM	22.78	-1.00	6.86	.00	1.02	1.02	.00	.00	.00	.03	.04	.02
280-137618-i-1	6/22/2020	8:46 PM	22.75	-1.00	7.88	.00	460.26	460.26	.00	.00	.00	4.60	-1.00	.02
CCV	6/22/2020	8:53 PM	22.72	-1.00	10.48	93.18	186.97	.62	186.35	.00	.93	1.87	-1.00	.02
CCB	6/22/2020	8:58 PM	22.69	-1.00	6.86	.00	.66	.66	.00	.00	.00	.02	.04	.02

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GENERAL RESULTS REPORT.SRW

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Shipping and Receiving Documents

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): TY GC CH JO

Bill to: Brice Engineering

Remarks: standard TAT

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2/NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks
6-16-20	1515		X	PZ018-20A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
6-16-20	1455		X	GO090-20A	AQ	9	ABCDEF	X	X	X	X	X	X		

280-137848 Chain of Custody

Signatures	Date	Time
Relinquished by:	6-17-20	1200
Received by: ETA Dan	6/19/20	0915
Relinquished by:		
Received for Laboratory by:		

Shipping Details
Method of Shipment: Federal Express
Airbill Number:

Lab Address:
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions
* Filter groundwater sample before analyzing for DOC
(A) (2) 500mL Ambers (Explosives)
(B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3)
(C) (1) 250mL HDPE (SO_4, Alkalinity)
(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)
(E) (1) 250mL Amber (DOC)*
(F) (3) 40 mL VOA w/ HCl (Methane)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2.4°C IR8 +0.6 GS 6/19/20

2019541

FEDEX OVERGOODS
2841 DEMOCRAT ROAD

MEMPHIS, TN 38118
UNITED STATES US

ACTWGT: 50.00 LB
CAD: 251405390/WSXI3100

BILL THIRD PARTY

TO ATTN PATRICK MCENTEE
TESTAMERICA
4955 YARROW ST

ARVADA CO 80002
(303) 736-0107 REF: PK:10008777
INV:
PO: DEPT:

FedEx Express

REL#
3785346

FRI - 19 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 3940 0007 9727

XH LAAA

80002
CO-US DEN

280-137848 Waybill

650

1
10:30

Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-137848-1

Login Number: 137848
List Number: 1
Creator: Lubin, Julius C

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	