



ANALYTICAL REPORT

PREPARED FOR

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Generated 10/21/2024 7:17 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-197842-1

Eurofins Denver

Job Notes

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Authorization



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Table of Contents

Cover Title Page	1
Data Summaries	5
Definitions	5
Case Narrative	6
Detection Summary	7
Client Sample Results	8
Default Detection Limits	13
Surrogate Summary	14
QC Sample Results	15
QC Association	17
Chronicle	18
Certification Summary	20
Method Summary	21
Sample Summary	22
Manual Integration Summary	23
Reagent Traceability	37
COAs	43
Organic Sample Data	205
HPLC/IC	205
8330B_DOD5	205
8330B_DOD5 QC Summary	206
8330B_DOD5 Sample Data	213
Standards Data	313
8330B_DOD5 ICAL Data	313
8330B_DOD5 CCAL Data	511
Raw QC Data	545

Table of Contents

8330B_DOD5 Blank Data	545
8330B_DOD5 LCS/LCSD Data	551
8330B_DOD5 Run Logs	557
8330B_DOD5 Prep Data	561
Inorganic Sample Data	565
General Chemistry Data	565
Gen Chem Cover Page	566
Gen Chem Sample Data	567
Gen Chem QC Data	568
Gen Chem ICV/CCV	568
Gen Chem Blanks	570
Gen Chem LCS/LCSD	571
Gen Chem Calibration	574
Gen Chem MDL	577
Gen Chem Analysis Run Log	581
Gen Chem Prep Data	590
Gen Chem Raw Data	594
Shipping and Receiving Documents	652
Client Chain of Custody	653
Sample Receipt Checklist	663

Definitions/Glossary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
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

**Job Narrative
280-197842-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Receipt

The samples were received on 10/10/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.6°C and 1.8°C.

Method 8330B - Nitroaromatics and Nitramines (HPLC)

Samples WBGmw-006-240901-GW (280-197842-2), FBQmw-175-240901-GW (280-197842-3), WBGmw-020-240901-GW (280-197842-4), WBGmw-016-240901-GW (280-197842-5), WBGmw-021-240901-GW (280-197842-6), WBGmw-009-240901-GW (280-197842-7), WBGmw-018-240901-GW (280-197842-8), WBGmw-017-240901-GW (280-197842-9) and WBGmw-014-240901-GW (280-197842-10) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 10/16/2024 and analyzed on 10/17/2024 and 10/18/2024.

In preparation batch 280-671072, the following samples required filtration to reduce matrix interferences: WBGmw-020-240901-GW (280-197842-4), WBGmw-021-240901-GW (280-197842-6) and WBGmw-018-240901-GW (280-197842-8).

In preparation batch 280-671072, the following sample: WBGmw-017-240901-GW (280-197842-9) was decanted prior to preparation as sample bottles contained insufficient headspace for the addition of sodium chloride.

Method 350.1 - Nitrogen, Ammonia

Sample LL12mw-249-240901-GW (280-197842-1) was analyzed for Nitrogen, Ammonia. The sample was analyzed on 10/19/2024.

Method 9056 - Anions, Ion Chromatography

Sample LL12mw-249-240901-GW (280-197842-1) was analyzed for Anions, Ion Chromatography. The sample was analyzed on 10/10/2024.

Detection Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Client Sample ID: LL12mw-249-240901-GW

Lab Sample ID: 280-197842-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.38		0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: WBGmw-006-240901-GW

Lab Sample ID: 280-197842-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	3.3	M	0.22	0.21	0.092	ug/L	1		8330B	Total/NA
RDX	7.3	M	0.22	0.21	0.054	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-175-240901-GW

Lab Sample ID: 280-197842-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Tetryl	0.12	J	0.15	0.14	0.043	ug/L	1		8330B	Total/NA

Client Sample ID: WBGmw-020-240901-GW

Lab Sample ID: 280-197842-4

No Detections.

Client Sample ID: WBGmw-016-240901-GW

Lab Sample ID: 280-197842-5

No Detections.

Client Sample ID: WBGmw-021-240901-GW

Lab Sample ID: 280-197842-6

No Detections.

Client Sample ID: WBGmw-009-240901-GW

Lab Sample ID: 280-197842-7

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	1.3	M	0.23	0.22	0.097	ug/L	1		8330B	Total/NA
RDX	2.1	M	0.23	0.22	0.057	ug/L	1		8330B	Total/NA

Client Sample ID: WBGmw-018-240901-GW

Lab Sample ID: 280-197842-8

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	0.12	J M	0.23	0.22	0.056	ug/L	1		8330B	Total/NA

Client Sample ID: WBGmw-017-240901-GW

Lab Sample ID: 280-197842-9

No Detections.

Client Sample ID: WBGmw-014-240901-GW

Lab Sample ID: 280-197842-10

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: WBGmw-006-240901-GW

Date Collected: 10/09/24 09:29

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-2

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		10/17/24 03:54	1
1,3-Dinitrobenzene	0.10	U	0.12	0.10	0.039	ug/L		10/17/24 23:29	1
2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047	ug/L		10/17/24 03:54	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		10/17/24 03:54	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		10/17/24 03:54	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053	ug/L		10/17/24 03:54	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		10/17/24 03:54	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		10/17/24 03:54	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		10/17/24 03:54	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/17/24 03:54	1
HMX	3.3	M	0.22	0.21	0.092	ug/L		10/17/24 03:54	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		10/17/24 03:54	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		10/17/24 03:54	1
PETN	1.0	U	1.2	1.0	0.47	ug/L		10/17/24 03:54	1
RDX	7.3	M	0.22	0.21	0.054	ug/L		10/17/24 03:54	1
Tetryl	0.10	U	0.12	0.10	0.033	ug/L		10/17/24 03:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	94	M	83 - 119	10/16/24 10:50	10/17/24 03:54	1
1,2-Dinitrobenzene	92		83 - 119	10/16/24 10:50	10/17/24 23:29	1

Client Sample ID: FBQmw-175-240901-GW

Date Collected: 10/09/24 10:30

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-3

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.27	U M	0.29	0.27	0.12	ug/L		10/17/24 04:16	1
1,3-Dinitrobenzene	0.14	U M	0.15	0.14	0.050	ug/L		10/17/24 04:16	1
2,4,6-Trinitrotoluene	0.14	U	0.15	0.14	0.062	ug/L		10/17/24 04:16	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.037	ug/L		10/17/24 04:16	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.055	ug/L		10/17/24 04:16	1
2-Amino-4,6-dinitrotoluene	0.14	U M	0.15	0.14	0.069	ug/L		10/17/24 04:16	1
2-Nitrotoluene	0.27	U	0.29	0.27	0.12	ug/L		10/17/24 04:16	1
3-Nitrotoluene	0.48	U	0.55	0.48	0.27	ug/L		10/17/24 04:16	1
4-Amino-2,6-dinitrotoluene	0.16	U	0.21	0.16	0.079	ug/L		10/17/24 04:16	1
4-Nitrotoluene	0.55	U	0.56	0.55	0.14	ug/L		10/17/24 04:16	1
HMX	0.27	U M	0.29	0.27	0.12	ug/L		10/17/24 04:16	1
Nitrobenzene	0.27	U	0.29	0.27	0.12	ug/L		10/17/24 04:16	1
Nitroglycerin	2.7	U	2.9	2.7	1.3	ug/L		10/17/24 04:16	1
PETN	1.4	U	1.5	1.4	0.61	ug/L		10/17/24 04:16	1
RDX	0.27	U	0.29	0.27	0.070	ug/L		10/17/24 04:16	1
Tetryl	0.12	J	0.15	0.14	0.043	ug/L		10/17/24 04:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	93		83 - 119	10/16/24 10:50	10/17/24 04:16	1
1,2-Dinitrobenzene	103		83 - 119	10/16/24 10:50	10/18/24 00:04	1

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Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: WBGmw-020-240901-GW

Date Collected: 10/09/24 10:43

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-4

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092	ug/L		10/17/24 04:38	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		10/17/24 04:38	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		10/17/24 04:38	1
2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030	ug/L		10/17/24 04:38	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.044	ug/L		10/17/24 04:38	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		10/17/24 04:38	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.093	ug/L		10/17/24 04:38	1
3-Nitrotoluene	0.38	U	0.44	0.38	0.21	ug/L		10/17/24 04:38	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063	ug/L		10/17/24 04:38	1
4-Nitrotoluene	0.44	U	0.45	0.44	0.11	ug/L		10/17/24 04:38	1
HMX	0.22	U M	0.23	0.22	0.096	ug/L		10/17/24 04:38	1
Nitrobenzene	0.22	U	0.23	0.22	0.099	ug/L		10/17/24 04:38	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		10/17/24 04:38	1
PETN	1.1	U	1.2	1.1	0.49	ug/L		10/17/24 04:38	1
RDX	0.22	U M	0.23	0.22	0.056	ug/L		10/17/24 04:38	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		10/17/24 04:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	103	M	83 - 119	10/16/24 10:50	10/17/24 04:38	1

Client Sample ID: WBGmw-016-240901-GW

Date Collected: 10/09/24 10:52

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-5

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093	ug/L		10/17/24 05:00	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041	ug/L		10/17/24 05:00	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050	ug/L		10/17/24 05:00	1
2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030	ug/L		10/17/24 05:00	1
2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044	ug/L		10/17/24 05:00	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.056	ug/L		10/17/24 05:00	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.095	ug/L		10/17/24 05:00	1
3-Nitrotoluene	0.39	U	0.44	0.39	0.22	ug/L		10/17/24 05:00	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.064	ug/L		10/17/24 05:00	1
4-Nitrotoluene	0.44	U	0.45	0.44	0.11	ug/L		10/17/24 05:00	1
HMX	0.22	U M	0.23	0.22	0.097	ug/L		10/17/24 05:00	1
Nitrobenzene	0.22	U	0.23	0.22	0.10	ug/L		10/17/24 05:00	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		10/17/24 05:00	1
PETN	1.1	U	1.2	1.1	0.49	ug/L		10/17/24 05:00	1
RDX	0.22	U	0.23	0.22	0.057	ug/L		10/17/24 05:00	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		10/17/24 05:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	89	M	83 - 119	10/16/24 10:50	10/17/24 05:00	1

Client Sample ID: WBGmw-021-240901-GW

Date Collected: 10/09/24 11:31

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-6

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		10/17/24 05:22	1
1,3-Dinitrobenzene	0.10	U M	0.12	0.10	0.039	ug/L		10/17/24 05:22	1

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Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-021-240901-GW

Date Collected: 10/09/24 11:31

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-6

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047	ug/L		10/17/24 05:22	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		10/17/24 05:22	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		10/17/24 05:22	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053	ug/L		10/17/24 05:22	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/17/24 05:22	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		10/17/24 05:22	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		10/17/24 05:22	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/17/24 05:22	1
HMX	0.21	U M	0.22	0.21	0.092	ug/L		10/17/24 05:22	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		10/17/24 05:22	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		10/17/24 05:22	1
PETN	1.0	U	1.2	1.0	0.47	ug/L		10/17/24 05:22	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		10/17/24 05:22	1
Tetryl	0.10	U	0.12	0.10	0.033	ug/L		10/17/24 05:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	92		83 - 119	10/16/24 10:50	10/17/24 05:22	1

Client Sample ID: WBGmw-009-240901-GW

Date Collected: 10/09/24 12:34

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-7

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093	ug/L		10/17/24 05:44	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041	ug/L		10/17/24 05:44	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050	ug/L		10/17/24 05:44	1
2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030	ug/L		10/17/24 05:44	1
2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044	ug/L		10/17/24 05:44	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.056	ug/L		10/17/24 05:44	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.094	ug/L		10/17/24 05:44	1
3-Nitrotoluene	0.39	U	0.44	0.39	0.22	ug/L		10/17/24 05:44	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.064	ug/L		10/17/24 05:44	1
4-Nitrotoluene	0.44	U	0.45	0.44	0.11	ug/L		10/17/24 05:44	1
HMX	1.3	M	0.23	0.22	0.097	ug/L		10/17/24 05:44	1
Nitrobenzene	0.22	U	0.23	0.22	0.10	ug/L		10/17/24 05:44	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		10/17/24 05:44	1
PETN	1.1	U	1.2	1.1	0.49	ug/L		10/17/24 05:44	1
RDX	2.1	M	0.23	0.22	0.057	ug/L		10/17/24 05:44	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		10/17/24 05:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	102	M	83 - 119	10/16/24 10:50	10/17/24 05:44	1
1,2-Dinitrobenzene	97		83 - 119	10/16/24 10:50	10/18/24 00:38	1

Client Sample ID: WBGmw-018-240901-GW

Date Collected: 10/09/24 12:35

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-8

Matrix: Water

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		10/17/24 06:06	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		10/17/24 06:06	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		10/17/24 06:06	1

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Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-018-240901-GW

Date Collected: 10/09/24 12:35

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-8

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030	ug/L		10/17/24 06:06	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		10/17/24 06:06	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		10/17/24 06:06	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.092	ug/L		10/17/24 06:06	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		10/17/24 06:06	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		10/17/24 06:06	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		10/17/24 06:06	1
HMX	0.22	U M	0.23	0.22	0.094	ug/L		10/18/24 01:13	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		10/17/24 06:06	1
Nitroglycerin	2.2	U	2.3	2.2	0.99	ug/L		10/17/24 06:06	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		10/17/24 06:06	1
RDX	0.12	J M	0.23	0.22	0.056	ug/L		10/17/24 06:06	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		10/17/24 06:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	91	M	83 - 119	10/16/24 10:50	10/17/24 06:06	1
1,2-Dinitrobenzene	91		83 - 119	10/16/24 10:50	10/18/24 01:13	1

Client Sample ID: WBGmw-017-240901-GW

Date Collected: 10/09/24 13:37

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-9

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		10/17/24 06:27	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.039	ug/L		10/17/24 06:27	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		10/17/24 06:27	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		10/17/24 06:27	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		10/17/24 06:27	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		10/17/24 06:27	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/17/24 06:27	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		10/17/24 06:27	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		10/17/24 06:27	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/17/24 06:27	1
HMX	0.21	U M	0.22	0.21	0.092	ug/L		10/17/24 06:27	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		10/17/24 06:27	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		10/17/24 06:27	1
PETN	1.0	U	1.1	1.0	0.47	ug/L		10/17/24 06:27	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		10/17/24 06:27	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/17/24 06:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	97	M	83 - 119	10/16/24 10:50	10/17/24 06:27	1

Client Sample ID: WBGmw-014-240901-GW

Date Collected: 10/09/24 14:28

Date Received: 10/10/24 09:20

Lab Sample ID: 280-197842-10

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/17/24 07:11	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/17/24 07:11	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		10/17/24 07:11	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		10/17/24 07:11	1

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Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-014-240901-GW

Lab Sample ID: 280-197842-10

Date Collected: 10/09/24 14:28

Matrix: Water

Date Received: 10/10/24 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		10/17/24 07:11	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		10/17/24 07:11	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/17/24 07:11	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/17/24 07:11	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060	ug/L		10/17/24 07:11	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/17/24 07:11	1
HMX	0.21	U M	0.22	0.21	0.091	ug/L		10/17/24 07:11	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/17/24 07:11	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/17/24 07:11	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/17/24 07:11	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		10/17/24 07:11	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/17/24 07:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	93	M	83 - 119	10/16/24 10:50	10/17/24 07:11	1

General Chemistry

Client Sample ID: LL12mw-249-240901-GW

Lab Sample ID: 280-197842-1

Date Collected: 10/09/24 08:50

Matrix: Water

Date Received: 10/10/24 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.38		0.10	0.050	0.029	mg/L		10/19/24 16:29	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		10/10/24 19:38	1

Default Detection Limits

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: 8330B - 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
Nitrobenzene	0.21	0.091	ug/L
Nitroglycerin	2.1	0.92	ug/L
PETN	1.1	0.45	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia as N	0.10	0.029	mg/L
Nitrate as N	0.50	0.090	mg/L

Surrogate Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-197842-2	WBGmw-006-240901-GW	94 M
280-197842-3	FBQmw-175-240901-GW	93
280-197842-4	WBGmw-020-240901-GW	103 M
280-197842-5	WBGmw-016-240901-GW	89 M
280-197842-6	WBGmw-021-240901-GW	92
280-197842-7	WBGmw-009-240901-GW	102 M
280-197842-8	WBGmw-018-240901-GW	91 M
280-197842-9	WBGmw-017-240901-GW	97 M
280-197842-10	WBGmw-014-240901-GW	93 M
LCS 280-671072/2-A	Lab Control Sample	101
MB 280-671072/1-A	Method Blank	101

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-197842-2	WBGmw-006-240901-GW	92
280-197842-3	FBQmw-175-240901-GW	103
280-197842-7	WBGmw-009-240901-GW	97
280-197842-8	WBGmw-018-240901-GW	91

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

QC Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-671072/1-A

Matrix: Water

Analysis Batch: 671268

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 671072

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		10/17/24 03:10	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		10/17/24 03:10	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		10/17/24 03:10	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		10/17/24 03:10	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		10/17/24 03:10	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		10/17/24 03:10	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		10/17/24 03:10	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		10/17/24 03:10	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		10/17/24 03:10	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		10/17/24 03:10	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		10/17/24 03:10	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		10/17/24 03:10	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		10/17/24 03:10	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		10/17/24 03:10	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		10/17/24 03:10	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		10/17/24 03:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	101		83 - 119	10/16/24 10:50	10/17/24 03:10	1

Lab Sample ID: LCS 280-671072/2-A

Matrix: Water

Analysis Batch: 671268

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 671072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.27	M	ug/L		113	73 - 125
1,3-Dinitrobenzene	2.00	2.12		ug/L		106	78 - 120
2,4,6-Trinitrotoluene	2.00	2.05		ug/L		102	71 - 123
2,4-Dinitrotoluene	2.00	2.02		ug/L		101	78 - 120
2,6-Dinitrotoluene	2.00	2.03		ug/L		102	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	2.06		ug/L		103	79 - 120
2-Nitrotoluene	2.00	1.62		ug/L		81	70 - 127
3-Nitrotoluene	2.00	1.70		ug/L		85	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	2.03		ug/L		101	76 - 125
4-Nitrotoluene	2.00	1.69		ug/L		84	71 - 127
HMX	2.00	1.94		ug/L		97	65 - 135
Nitrobenzene	2.00	1.84		ug/L		92	65 - 134
Nitroglycerin	20.0	23.3		ug/L		117	74 - 127
PETN	20.0	22.4		ug/L		112	73 - 127
RDX	2.00	2.07	M	ug/L		104	68 - 130
Tetryl	2.00	2.11		ug/L		105	64 - 128

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

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QC Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-671704/135

Matrix: Water

Analysis Batch: 671704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N	0.050	U	0.10	0.050	0.029	mg/L		10/19/24 16:08	1

Lab Sample ID: LCS 280-671704/136

Matrix: Water

Analysis Batch: 671704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.51	2.53		mg/L		101	90 - 110

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-670541/13

Matrix: Water

Analysis Batch: 670541

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		10/10/24 18:40	1

Lab Sample ID: LCS 280-670541/11

Matrix: Water

Analysis Batch: 670541

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	5.02		mg/L		100	88 - 111

Lab Sample ID: LCSD 280-670541/12

Matrix: Water

Analysis Batch: 670541

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	5.01		mg/L		100	88 - 111	0	10

Lab Sample ID: MRL 280-670541/10

Matrix: Water

Analysis Batch: 670541

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.500	0.493	J	mg/L		99	50 - 150

QC Association Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

HPLC/IC

Prep Batch: 671072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-197842-2	WBGmw-006-240901-GW	Total/NA	Water	3535	
280-197842-3	FBQmw-175-240901-GW	Total/NA	Water	3535	
280-197842-4	WBGmw-020-240901-GW	Total/NA	Water	3535	
280-197842-5	WBGmw-016-240901-GW	Total/NA	Water	3535	
280-197842-6	WBGmw-021-240901-GW	Total/NA	Water	3535	
280-197842-7	WBGmw-009-240901-GW	Total/NA	Water	3535	
280-197842-8	WBGmw-018-240901-GW	Total/NA	Water	3535	
280-197842-9	WBGmw-017-240901-GW	Total/NA	Water	3535	
280-197842-10	WBGmw-014-240901-GW	Total/NA	Water	3535	
MB 280-671072/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-671072/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 671268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-197842-2	WBGmw-006-240901-GW	Total/NA	Water	8330B	671072
280-197842-3	FBQmw-175-240901-GW	Total/NA	Water	8330B	671072
280-197842-4	WBGmw-020-240901-GW	Total/NA	Water	8330B	671072
280-197842-5	WBGmw-016-240901-GW	Total/NA	Water	8330B	671072
280-197842-6	WBGmw-021-240901-GW	Total/NA	Water	8330B	671072
280-197842-7	WBGmw-009-240901-GW	Total/NA	Water	8330B	671072
280-197842-8	WBGmw-018-240901-GW	Total/NA	Water	8330B	671072
280-197842-9	WBGmw-017-240901-GW	Total/NA	Water	8330B	671072
280-197842-10	WBGmw-014-240901-GW	Total/NA	Water	8330B	671072
MB 280-671072/1-A	Method Blank	Total/NA	Water	8330B	671072
LCS 280-671072/2-A	Lab Control Sample	Total/NA	Water	8330B	671072

Analysis Batch: 671457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-197842-2	WBGmw-006-240901-GW	Total/NA	Water	8330B	671072
280-197842-3	FBQmw-175-240901-GW	Total/NA	Water	8330B	671072
280-197842-7	WBGmw-009-240901-GW	Total/NA	Water	8330B	671072
280-197842-8	WBGmw-018-240901-GW	Total/NA	Water	8330B	671072

General Chemistry

Analysis Batch: 670541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-197842-1	LL12mw-249-240901-GW	Total/NA	Water	9056	
MB 280-670541/13	Method Blank	Total/NA	Water	9056	
LCS 280-670541/11	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-670541/12	Lab Control Sample Dup	Total/NA	Water	9056	
MRL 280-670541/10	Lab Control Sample	Total/NA	Water	9056	

Analysis Batch: 671704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-197842-1	LL12mw-249-240901-GW	Total/NA	Water	350.1	
MB 280-671704/135	Method Blank	Total/NA	Water	350.1	
LCS 280-671704/136	Lab Control Sample	Total/NA	Water	350.1	

Lab Chronicle

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Client Sample ID: LL12mw-249-240901-GW

Lab Sample ID: 280-197842-1

Date Collected: 10/09/24 08:50

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	671704	10/19/24 16:29	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	670541	10/10/24 19:38	EJS	EET DEN

Client Sample ID: WBGmw-006-240901-GW

Lab Sample ID: 280-197842-2

Date Collected: 10/09/24 09:29

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			476.9 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 03:54	JZ	EET DEN
Total/NA	Prep	3535			476.9 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671457	10/17/24 23:29	JZ	EET DEN

Client Sample ID: FBQmw-175-240901-GW

Lab Sample ID: 280-197842-3

Date Collected: 10/09/24 10:30

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			365.6 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 04:16	JZ	EET DEN
Total/NA	Prep	3535			365.6 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671457	10/18/24 00:04	JZ	EET DEN

Client Sample ID: WBGmw-020-240901-GW

Lab Sample ID: 280-197842-4

Date Collected: 10/09/24 10:43

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			458.6 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 04:38	JZ	EET DEN

Client Sample ID: WBGmw-016-240901-GW

Lab Sample ID: 280-197842-5

Date Collected: 10/09/24 10:52

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			452 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 05:00	JZ	EET DEN

Client Sample ID: WBGmw-021-240901-GW

Lab Sample ID: 280-197842-6

Date Collected: 10/09/24 11:31

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478.1 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 05:22	JZ	EET DEN

Eurofins Denver

Lab Chronicle

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Client Sample ID: WBGmw-009-240901-GW

Lab Sample ID: 280-197842-7

Date Collected: 10/09/24 12:34

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			453.4 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 05:44	JZ	EET DEN
Total/NA	Prep	3535			453.4 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671457	10/18/24 00:38	JZ	EET DEN

Client Sample ID: WBGmw-018-240901-GW

Lab Sample ID: 280-197842-8

Date Collected: 10/09/24 12:35

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			463.8 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 06:06	JZ	EET DEN
Total/NA	Prep	3535			463.8 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671457	10/18/24 01:13	JZ	EET DEN

Client Sample ID: WBGmw-017-240901-GW

Lab Sample ID: 280-197842-9

Date Collected: 10/09/24 13:37

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478.4 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 06:27	JZ	EET DEN

Client Sample ID: WBGmw-014-240901-GW

Lab Sample ID: 280-197842-10

Date Collected: 10/09/24 14:28

Matrix: Water

Date Received: 10/10/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			482.8 mL	5 mL	671072	10/16/24 10:50	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	671268	10/17/24 07:11	JZ	EET DEN

Laboratory References:

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

Accreditation/Certification Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-25

Method Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
350.1	Nitrogen, Ammonia	EPA	EET DEN
9056	Anions, Ion Chromatography	SW846	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-197842-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-197842-1	LL12mw-249-240901-GW	Water	10/09/24 08:50	10/10/24 09:20
280-197842-2	WBGmw-006-240901-GW	Water	10/09/24 09:29	10/10/24 09:20
280-197842-3	FBQmw-175-240901-GW	Water	10/09/24 10:30	10/10/24 09:20
280-197842-4	WBGmw-020-240901-GW	Water	10/09/24 10:43	10/10/24 09:20
280-197842-5	WBGmw-016-240901-GW	Water	10/09/24 10:52	10/10/24 09:20
280-197842-6	WBGmw-021-240901-GW	Water	10/09/24 11:31	10/10/24 09:20
280-197842-7	WBGmw-009-240901-GW	Water	10/09/24 12:34	10/10/24 09:20
280-197842-8	WBGmw-018-240901-GW	Water	10/09/24 12:35	10/10/24 09:20
280-197842-9	WBGmw-017-240901-GW	Water	10/09/24 13:37	10/10/24 09:20
280-197842-10	WBGmw-014-240901-GW	Water	10/09/24 14:28	10/10/24 09:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 669870Lab Sample ID: IC 280-669870/11

Client Sample ID: _____

Date Analyzed: 10/04/24 16:59Lab File ID: 10040011.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	10/04/24 17:24
HMX	6.57	Baseline	LV5D	10/04/24 17:24
DNX	6.74	Baseline	LV5D	10/04/24 17:24
MNX	7.14	Baseline	LV5D	10/04/24 17:24
Nitroglycerin	10.11	Baseline	LV5D	10/08/24 13:08

Lab Sample ID: IC 280-669870/12

Client Sample ID: _____

Date Analyzed: 10/04/24 17:21Lab File ID: 10040012.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/08/24 12:59
DNX	6.75	Baseline	LV5D	10/08/24 12:59
Nitroglycerin	10.13	Baseline	LV5D	10/08/24 13:08

Lab Sample ID: IC 280-669870/13

Client Sample ID: _____

Date Analyzed: 10/04/24 17:43Lab File ID: 10040013.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.13	Baseline	LV5D	10/08/24 13:09

Lab Sample ID: IC 280-669870/14

Client Sample ID: _____

Date Analyzed: 10/04/24 18:05Lab File ID: 10040014.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.14	Baseline	LV5D	10/08/24 13:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 669870Lab Sample ID: IC 280-669870/15

Client Sample ID: _____

Date Analyzed: 10/04/24 18:27Lab File ID: 10040015.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/08/24 13:01
HMX	6.58	Baseline	LV5D	10/08/24 13:01
DNX	6.75	Baseline	LV5D	10/08/24 13:01
Nitroglycerin	10.12	Baseline	LV5D	10/08/24 13:09

Lab Sample ID: IC 280-669870/16

Client Sample ID: _____

Date Analyzed: 10/04/24 18:49Lab File ID: 10040016.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/08/24 13:02
HMX	6.58	Baseline	LV5D	10/08/24 13:02
DNX	6.75	Baseline	LV5D	10/08/24 13:02
RDX	7.51	Baseline	LV5D	10/08/24 13:02
Picric acid	7.94	Baseline	LV5D	10/08/24 13:02
Tetryl	9.68	Baseline	LV5D	10/08/24 13:03
Nitroglycerin	10.12	Baseline	LV5D	10/08/24 13:03
2-Nitrotoluene	11.85	Baseline	LV5D	10/08/24 13:03
4-Nitrotoluene	12.22	Baseline	LV5D	10/08/24 13:03
3-Nitrotoluene	12.72	Baseline	LV5D	10/08/24 13:03
PETN	13.80	Baseline	LV5D	10/08/24 13:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 669870Lab Sample ID: IC 280-669870/17

Client Sample ID: _____

Date Analyzed: 10/04/24 19:11Lab File ID: 10040017.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	10/08/24 13:05
HMX	6.57	Baseline	LV5D	10/08/24 13:05
DNX	6.75	Baseline	LV5D	10/08/24 13:04
MNX	7.15	Baseline	LV5D	10/08/24 13:04
RDX	7.51	Baseline	LV5D	10/08/24 13:04
Picric acid	7.94	Baseline	LV5D	10/08/24 13:04
1,2-Dinitrobenzene	8.37	Baseline	LV5D	10/08/24 13:04
1,3,5-Trinitrobenzene	8.47	Baseline	LV5D	10/08/24 13:04
Nitroglycerin	10.12	Baseline	LV5D	10/08/24 13:09
PETN	13.79	Baseline	LV5D	10/08/24 13:04

Lab Sample ID: IC 280-669870/18

Client Sample ID: _____

Date Analyzed: 10/04/24 19:33Lab File ID: 10040018.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	10/08/24 13:05
HMX	6.57	Baseline	LV5D	10/08/24 13:05
DNX	6.75	Baseline	LV5D	10/08/24 13:05
MNX	7.15	Baseline	LV5D	10/08/24 13:05
RDX	7.51	Baseline	LV5D	10/08/24 13:05
Picric acid	7.94	Baseline	LV5D	10/08/24 13:05
Nitroglycerin	10.13	Baseline	LV5D	10/08/24 13:09
PETN	13.79	Baseline	LV5D	10/08/24 13:06

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 669870Lab Sample ID: IC 280-669870/19

Client Sample ID: _____

Date Analyzed: 10/04/24 19:55Lab File ID: 10040019.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/08/24 13:07
HMX	6.57	Baseline	LV5D	10/08/24 13:07
DNX	6.75	Baseline	LV5D	10/08/24 13:07
Nitroglycerin	10.12	Baseline	LV5D	10/08/24 13:09
2-Nitrotoluene	11.84	Baseline	LV5D	10/08/24 13:06
3-Nitrotoluene	12.72	Baseline	LV5D	10/08/24 13:06
PETN	13.78	Baseline	LV5D	10/08/24 13:06

Lab Sample ID: ICV 280-669870/20

Client Sample ID: _____

Date Analyzed: 10/04/24 20:16Lab File ID: 10040020.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl	9.67	Baseline	LV5D	10/08/24 13:11
Nitroglycerin	10.11	Baseline	LV5D	10/08/24 13:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 671268Lab Sample ID: MB 280-671072/1-A

Client Sample ID: _____

Date Analyzed: 10/17/24 03:10Lab File ID: 10160039.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:47

Lab Sample ID: LCS 280-671072/2-A

Client Sample ID: _____

Date Analyzed: 10/17/24 03:32Lab File ID: 10160040.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.50	Baseline	LV5D	10/17/24 11:48
1,3,5-Trinitrobenzene	8.46	Baseline	LV5D	10/17/24 11:47

Lab Sample ID: 280-197842-2Client Sample ID: WBGmw-006-240901-GWDate Analyzed: 10/17/24 03:54Lab File ID: 10160041.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.58	Baseline	LV5D	10/17/24 11:48
RDX	7.51	Baseline	LV5D	10/17/24 11:48
1,2-Dinitrobenzene	8.37	Baseline	LV5D	10/17/24 11:48
1,3-Dinitrobenzene	9.04	Baseline	LV5D	10/17/24 11:48

Lab Sample ID: 280-197842-3Client Sample ID: FBQmw-175-240901-GWDate Analyzed: 10/17/24 04:16Lab File ID: 10160042.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:49
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:49
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/17/24 11:49
HMX		Invalid Compound ID	LV5D	10/17/24 11:48

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 671268Lab Sample ID: 280-197842-4Client Sample ID: WBGmw-020-240901-GWDate Analyzed: 10/17/24 04:38Lab File ID: 10160043.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.58	Baseline	LV5D	10/17/24 11:49
1,2-Dinitrobenzene	8.36	Baseline	LV5D	10/17/24 11:49
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:49
RDX		Invalid Compound ID	LV5D	10/17/24 11:49

Lab Sample ID: 280-197842-5Client Sample ID: WBGmw-016-240901-GWDate Analyzed: 10/17/24 05:00Lab File ID: 10160044.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.36	Baseline	LV5D	10/17/24 11:52
HMX		Invalid Compound ID	LV5D	10/17/24 11:52

Lab Sample ID: 280-197842-6Client Sample ID: WBGmw-021-240901-GWDate Analyzed: 10/17/24 05:22Lab File ID: 10160045.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:52
HMX		Invalid Compound ID	LV5D	10/17/24 11:52

Lab Sample ID: 280-197842-7Client Sample ID: WBGmw-009-240901-GWDate Analyzed: 10/17/24 05:44Lab File ID: 10160046.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/17/24 11:52
RDX	7.50	Baseline	LV5D	10/17/24 11:52
1,2-Dinitrobenzene	8.36	Baseline	LV5D	10/17/24 11:52

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 671268Lab Sample ID: 280-197842-8Client Sample ID: WBGmw-018-240901-GWDate Analyzed: 10/17/24 06:06Lab File ID: 10160047.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/17/24 11:52
RDX	7.50	Baseline	LV5D	10/17/24 11:52
1,2-Dinitrobenzene	8.37	Baseline	LV5D	10/17/24 11:52
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:52
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/17/24 11:52

Lab Sample ID: 280-197842-9Client Sample ID: WBGmw-017-240901-GWDate Analyzed: 10/17/24 06:27Lab File ID: 10160048.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.36	Baseline	LV5D	10/17/24 11:53
HMX		Invalid Compound ID	LV5D	10/17/24 11:52

Lab Sample ID: 280-197842-10Client Sample ID: WBGmw-014-240901-GWDate Analyzed: 10/17/24 07:11Lab File ID: 10160050.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.36	Baseline	LV5D	10/17/24 11:53
HMX		Invalid Compound ID	LV5D	10/17/24 11:53

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Analysis Batch Number: 663590Lab Sample ID: IC 280-663590/10

Client Sample ID: _____

Date Analyzed: 08/10/24 20:22Lab File ID: 08100010.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.63	Peak assignment corrected	LV5D	08/13/24 13:45
Tetryl	21.11	Baseline Smoothing	LV5D	08/13/24 15:16
2,4,6-Trinitrotoluene	21.99	Baseline Smoothing	LV5D	08/13/24 15:11

Lab Sample ID: IC 280-663590/11

Client Sample ID: _____

Date Analyzed: 08/10/24 20:57Lab File ID: 08100011.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.76	Baseline Smoothing	LV5D	08/13/24 15:11
Tetryl	21.14	Baseline Smoothing	LV5D	08/13/24 15:16
2,4,6-Trinitrotoluene	22.01	Baseline Smoothing	LV5D	08/13/24 15:11

Lab Sample ID: IC 280-663590/12

Client Sample ID: _____

Date Analyzed: 08/10/24 21:31Lab File ID: 08100012.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.79	Baseline Smoothing	LV5D	08/13/24 15:11
Tetryl	21.13	Baseline Smoothing	LV5D	08/13/24 15:11
2,4,6-Trinitrotoluene	22.01	Baseline Smoothing	LV5D	08/13/24 15:11

Lab Sample ID: IC 280-663590/13

Client Sample ID: _____

Date Analyzed: 08/10/24 22:06Lab File ID: 08100013.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.83	Baseline Smoothing	LV5D	08/13/24 15:11
Tetryl	21.17	Baseline Smoothing	LV5D	08/13/24 15:12
2,4,6-Trinitrotoluene	22.05	Baseline Smoothing	LV5D	08/13/24 15:12

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Analysis Batch Number: 663590Lab Sample ID: IC 280-663590/14

Client Sample ID: _____

Date Analyzed: 08/10/24 22:41Lab File ID: 08100014.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.81	Baseline Smoothing	LV5D	08/13/24 15:12
Tetryl	21.10	Baseline Smoothing	LV5D	08/13/24 15:12
2,4,6-Trinitrotoluene	21.98	Baseline Smoothing	LV5D	08/13/24 15:12

Lab Sample ID: IC 280-663590/15

Client Sample ID: _____

Date Analyzed: 08/10/24 23:16Lab File ID: 08100015.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.86	Baseline Smoothing	LV5D	08/13/24 15:12
Tetryl	21.15	Baseline Smoothing	LV5D	08/13/24 15:12
2,4,6-Trinitrotoluene	22.03	Baseline Smoothing	LV5D	08/13/24 15:12

Lab Sample ID: IC 280-663590/16

Client Sample ID: _____

Date Analyzed: 08/10/24 23:51Lab File ID: 08100016.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.87	Baseline Smoothing	LV5D	08/13/24 15:12
Tetryl	21.16	Baseline Smoothing	LV5D	08/13/24 15:12
2,4,6-Trinitrotoluene	22.03	Baseline Smoothing	LV5D	08/13/24 15:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Analysis Batch Number: 663590Lab Sample ID: IC 280-663590/17

Client Sample ID: _____

Date Analyzed: 08/11/24 00:26Lab File ID: 08100017.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.87	Baseline Smoothing	LV5D	08/13/24 15:12
Nitrobenzene	11.02	Baseline Smoothing	LV5D	08/13/24 15:13
1,2-Dinitrobenzene	11.84	Baseline Smoothing	LV5D	08/13/24 15:13
3,5-Dinitroaniline	13.52	Baseline Smoothing	LV5D	08/13/24 15:13
1,3-Dinitrobenzene	13.86	Baseline Smoothing	LV5D	08/13/24 15:13
Nitroglycerin	14.53	Baseline Smoothing	LV5D	08/13/24 15:13
2-Nitrotoluene	15.04	Baseline Smoothing	LV5D	08/13/24 15:13
4-Nitrotoluene	15.28	Baseline Smoothing	LV5D	08/13/24 15:13
4-Amino-2,6-dinitrotoluene	15.62	Baseline Smoothing	LV5D	08/13/24 15:13
3-Nitrotoluene	16.10	Baseline Smoothing	LV5D	08/13/24 15:13
2-Amino-4,6-dinitrotoluene	16.36	Baseline Smoothing	LV5D	08/13/24 15:13
1,3,5-Trinitrobenzene	16.58	Baseline Smoothing	LV5D	08/13/24 15:13
Tetryl	21.15	Baseline Smoothing	LV5D	08/13/24 15:14
2,4,6-Trinitrotoluene	22.02	Baseline Smoothing	LV5D	08/13/24 15:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Analysis Batch Number: 663590Lab Sample ID: IC 280-663590/18

Client Sample ID: _____

Date Analyzed: 08/11/24 01:01Lab File ID: 08100018.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.32	Baseline Smoothing	LV5D	08/13/24 15:15
Picric acid	7.86	Baseline Smoothing	LV5D	08/13/24 15:14
Nitrobenzene	11.00	Baseline Smoothing	LV5D	08/13/24 15:15
1,2-Dinitrobenzene	11.83	Baseline Smoothing	LV5D	08/13/24 15:15
3,5-Dinitroaniline	13.51	Baseline Smoothing	LV5D	08/13/24 15:15
1,3-Dinitrobenzene	13.85	Baseline Smoothing	LV5D	08/13/24 15:15
2-Nitrotoluene	15.03	Baseline Smoothing	LV5D	08/13/24 15:15
4-Nitrotoluene	15.28	Baseline Smoothing	LV5D	08/13/24 15:15
4-Amino-2,6-dinitrotoluene	15.61	Baseline Smoothing	LV5D	08/13/24 15:15
3-Nitrotoluene	16.09	Baseline Smoothing	LV5D	08/13/24 15:15
2-Amino-4,6-dinitrotoluene	16.36	Baseline Smoothing	LV5D	08/13/24 15:15
1,3,5-Trinitrobenzene	16.58	Baseline Smoothing	LV5D	08/13/24 15:15
2,6-Dinitrotoluene	17.69	Baseline Smoothing	LV5D	08/13/24 15:15
2,4-Dinitrotoluene	18.13	Baseline Smoothing	LV5D	08/13/24 15:15
Tetryl	21.15	Baseline Smoothing	LV5D	08/13/24 15:14
2,4,6-Trinitrotoluene	22.02	Baseline Smoothing	LV5D	08/13/24 15:14

Lab Sample ID: ICV 280-663590/19

Client Sample ID: _____

Date Analyzed: 08/11/24 01:36Lab File ID: 08100019.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl	21.14	Baseline Smoothing	LV5D	08/13/24 15:17
2,4,6-Trinitrotoluene	22.01	Baseline Smoothing	LV5D	08/13/24 15:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Analysis Batch Number: 671457Lab Sample ID: 280-197842-2Client Sample ID: WBGmw-006-240901-GWDate Analyzed: 10/17/24 23:29Lab File ID: 10170020.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.24	Baseline Smoothing	LV5D	10/18/24 12:18
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:17
4-Nitrotoluene	15.04	Baseline Smoothing	LV5D	10/18/24 12:17
1,3,5-Trinitrobenzene	16.41	Baseline Smoothing	LV5D	10/18/24 12:17

Lab Sample ID: 280-197842-3Client Sample ID: FBQmw-175-240901-GWDate Analyzed: 10/18/24 00:04Lab File ID: 10170021.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:18
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:18
4-Nitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:18
Nitrobenzene		Invalid Compound ID	LV5D	10/18/24 12:18
Nitroglycerin		Invalid Compound ID	LV5D	10/18/24 12:18
1,3,5-Trinitrobenzene	16.40	Baseline Smoothing	LV5D	10/18/24 12:18
Tetryl	20.95	Baseline Smoothing	LV5D	10/18/24 12:18

Lab Sample ID: 280-197842-7Client Sample ID: WBGmw-009-240901-GWDate Analyzed: 10/18/24 00:38Lab File ID: 10170022.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.23	Baseline Smoothing	LV5D	10/18/24 12:24
RDX	8.32	Baseline Smoothing	LV5D	10/18/24 12:24
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:24
4-Nitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:24
1,3,5-Trinitrobenzene	16.42	Baseline Smoothing	LV5D	10/18/24 12:24

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: CHHPLC_X5 Analysis Batch Number: 671457
Lab Sample ID: 280-197842-8 Client Sample ID: WBGmw-018-240901-GW
Date Analyzed: 10/18/24 01:13 Lab File ID: 10170023.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.21	Baseline Smoothing	LV5D	10/18/24 12:30
RDX	8.31	Baseline Smoothing	LV5D	10/18/24 12:30
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/18/24 12:29
4-Nitrotoluene	15.03	Baseline Smoothing	LV5D	10/18/24 12:30
1,3,5-Trinitrobenzene	16.41	Baseline Smoothing	LV5D	10/18/24 12:30

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_IonChrom17 Analysis Batch Number: 670541
Lab Sample ID: STD 280-670541/5 IC Client Sample ID: _____
Date Analyzed: 10/10/24 17:12 Lab File ID: STD L5_07_CD_1_Total.d GC Column: Ion Pac AS18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	5.92	Baseline Smoothing	XAY4	10/11/24 17:30

Lab Sample ID: STD 280-670541/6 IC Client Sample ID: _____
Date Analyzed: 10/10/24 17:23 Lab File ID: STD L6_08_CD_1_Total.d GC Column: Ion Pac AS18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	5.90	Baseline Smoothing	XAY4	10/11/24 17:30

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal 00648	10/24/24	10/17/24	Di Water, Lot na	100 mL	NH3 ICV STD 00034	10 mL	Ammonia as N	100.2 mg/L
.NH3 ICV STD 00034	01/25/25		Inorganic Ventures, Lot S2-NH700817		(Purchased Reagent)		Ammonia as N	1002 mg/L
350.1 ICV 00626	10/24/24	10/17/24	na, Lot na	100 mL	NH3 CAL STD 00036	10 mL	Ammonia as N	100 mg/L
.NH3 CAL STD 00036	06/30/25		Ricca, Lot 2312g14		(Purchased Reagent)		Ammonia as N	1000 mg/L
8330 DMT_00018	03/28/25	09/28/24	Acetonitrile, Lot ACN_00243	5 mL	MNX,TNX,DNX_00118	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00118	07/31/25		Agilent, Lot 0006801476		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 LCS_00136	01/04/25	07/04/24	Acetonitrile, Lot Acetonitrile_00092	100 mL	8330 LCSTMix2_00117	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
					8330 NG Stk 00149	1 mL	Nitroglycerin	100 ug/mL
					8330 NG Stk 00151	1 mL	Nitroglycerin	100 ug/mL
					8330 PETN Stk 00157	1 mL	PETN	100 ug/mL
					8330 PETN Stk 00158	1 mL	PETN	100 ug/mL
					8330LCSTMix1_00153	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
.8330 LCSTMix2_00117	07/04/25		Restek, Lot A199657		(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 Stk 00149	07/04/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 NG Stk 00151	07/04/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 PETN Stk 00157	07/04/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330 PETN Stk 00158	07/04/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSTMix1_00153	07/04/25		Restek, Lot A196548		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
8330 LCS_00137	02/14/25	08/14/24	Acetonitrile, Lot Acetonitrile_00092	100 mL	3,5-DNA Stock_00058	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00118	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
					8330 NG Stk 00152	1 mL	Nitroglycerin	100 ug/mL
					8330 NG Stk 00153	1 mL	Nitroglycerin	100 ug/mL
					8330 PETN Stk 00159	1 mL	PETN	100 ug/mL
					8330 PETN Stk 00160	1 mL	PETN	100 ug/mL
					8330LCSMix1_00154	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
					PicricARestek_00125	1 mL	2,4,6-Trinitrophenol	10 ug/mL
							Ammonium Picrate	10.74 ug/mL
.3,5-DNA Stock 00058	08/14/25		Restek, Lot A0202640		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00118	08/14/25		Restek, Lot A199657		(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 Stk 00152	08/14/25		Restek, Lot A0211998		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 NG Stk 00153	08/14/25		Restek, Lot A0211998		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 PETN Stk 00159	08/14/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330 PETN Stk 00160	08/14/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00154	08/14/25		Restek, Lot A196548		(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_00125	08/14/25		Restek, Lot A0195778		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
							Ammonium Picrate	1074 ug/mL
8330IntermStk_00082	01/06/25	08/02/24	Acetonitrile, Lot ACN_242	10 mL	8330_NG1000_00015	1 mL	Nitroglycerin	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8330 PETN1000_00018	1 mL	PETN	100 ug/mL
					833035DNASTk_00062	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00035	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
							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
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PASTkPS_00077	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 NG1000_00015	08/02/25		Restek, Lot A0208632		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330 PETN1000_00018	08/02/25		Restek, Lot A0207895		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNASTk_00062	01/06/25		Accustandard, Lot 223041214-01		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25		Agilent, Lot 0006684308		(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
							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
							HMX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock 00173	01/23/25		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PASTkPS 00077	08/02/25		AccuStandard, Lot 223031306-01		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00083	04/04/25	10/04/24	Acetonitrile, Lot ACN_244	10 mL	8330_NG1000_00017	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00020	1 mL	PETN	100 ug/mL
					833035DNASTk 00064	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00036	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
							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
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PASTkPS 00078	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 NG1000 00017	10/04/25		Restek, Lot A0213231		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330 PETN1000 00020	10/04/25		Restek, Lot A0211856		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNASTk 00064	10/04/25		Accustandard, Lot 223011692-04		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00036	06/05/25	10/04/24	Acetonitrile, Lot ACN_244	10 mL	8330 Stock_TS_00025	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock 00174	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00025	06/05/25		Agilent, Lot 0006684308		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	1000 ug/mL
							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
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock 00174	10/04/25		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PASTkPS 00078	10/04/25		AccuStandard, Lot 223031306-01		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00158	02/09/25	08/09/24	Acetonitrile, Lot Acetonitrile_00092	500 mL	8330SurrStkSS_00324	0.7 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00325	1.1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00326	1.2 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00327	1.2 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00328	0.8 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00324	07/15/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00325	08/09/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00326	08/09/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00327	08/09/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00328	08/09/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00159	03/19/25	09/19/24	Acetonitrile, Lot Acetonitrile_00092	500 mL	8330SurrStkSS_00329	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00336	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00337	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00339	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00329	09/19/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00336	09/19/25		Restek, Lot A0211455		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00337	09/19/25		Restek, Lot A0211455		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00339	09/19/25		Restek, Lot A0211455		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00340	09/19/25		Restek, Lot A0211455		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
IC Cal low_00812	10/13/24	10/10/24	Di Water, Lot NA	100 mL	IC NO3 ICV 00020	5 mL	Nitrate as N	50 mg/L
					NO2 ICV std_00042	5 mL	Nitrite as N	50 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC NO3 ICV 00020	10/13/24		ERA, Lot 341022m		(Purchased Reagent)		Nitrate as N	1000 mg/L
.NO2 ICV std 00042	04/05/25		ERA, Lot 050423m		(Purchased Reagent)		Nitrite as N	1000 mg/L
IC ICV 5 00447	10/17/24	10/10/24	Di Water, Lot na	100 mL	IC NO3 cal 00030	5 mL	Nitrate as N	50 mg/L
.IC NO3 cal 00030	10/31/24		Ricca, Lot 1304R00		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS 02126	10/13/24	10/10/24	Di Water, Lot 27	200 mL	IC Cal low 00812	20 mL	Nitrate as N	5 mg/L
.IC Cal low 00812	10/13/24	10/10/24	Di Water, Lot NA	100 mL	IC NO3 ICV 00020	5 mL	Nitrate as N	50 mg/L
..IC NO3 ICV 00020	10/13/24		ERA, Lot 341022m		(Purchased Reagent)		Nitrate as N	1000 mg/L

Reagent

3,5-DNA Stock_00058



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



10/21/2024
7:17:47 AM



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. : 31661 Lot No.: A0202640
Description : 3,5-Dinitroaniline Standard
3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : April 30, 2028 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,008.0 µg/mL	+/- 37.5994

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

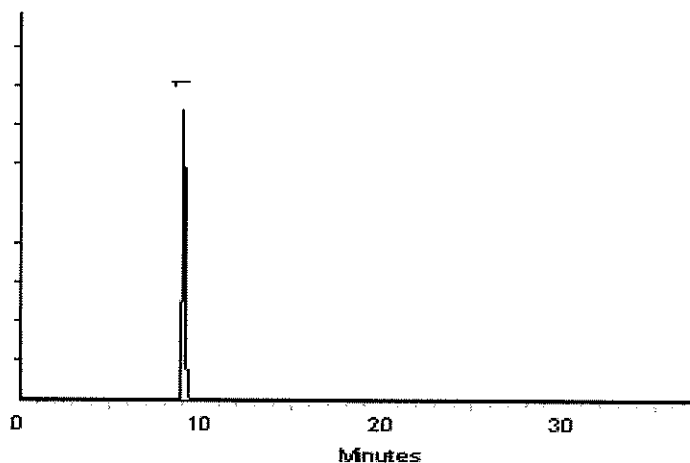
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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.

[Signature]
Dakota Parson - Operations Technician I

Date Mixed: 29-Sep-2023

Balance Serial # 1128342314

[Signature]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Oct-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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 LCS_00136

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240709-135286.b\07090012.D

Lims ID: 8330LCS136

Inj. Date: 09-Jul-2024 17:15:14

Worklist ID: 280-0135286-012

Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
4 HMX	0.5000	0.4360	87.2	65-135	66-115
8 RDX	0.5000	0.4659	93.2	68-130	69-122
9 2,4,6-Trinitrophenol	0.5000	0.5251	105.0	80-120	63-135
11 1,3,5-Trinitrobenzene	0.5000	0.5198	104.0	73-125	62-127
12 1,3-Dinitrobenzene	0.5000	0.5209	104.2	78-120	59-131
13 Nitrobenzene	0.5000	0.5223	104.5	65-134	46-144
14 3,5-Dinitroaniline	0.5000	0.5227	104.5	71-117	55-119
15 Tetryl	0.5000	0.5226	104.5	64-128	56-131
16 Nitroglycerin	5.00	5.08	101.7	74-127	70-125
17 2,4,6-Trinitrotoluene	0.5000	0.5032	100.6	71-123	46-139
18 4-Amino-2,6-dinitrotolu	0.5000	0.4896	97.9	76-125	43-120
19 2-Amino-4,6-dinitrotolu	0.5000	0.5095	101.9	79-120	46-124
20 2,6-Dinitrotoluene	0.5000	0.4875	97.5	77-127	51-130
21 2,4-Dinitrotoluene	0.5000	0.4975	99.5	78-120	53-127
22 o-Nitrotoluene	0.5000	0.5031	100.6	70-127	37-138
23 p-Nitrotoluene	0.5000	0.5028	100.6	71-127	41-137
24 m-Nitrotoluene	0.5000	0.5003	100.1	73-125	31-140
25 PETN	5.00	5.33	106.7	73-127	67-127

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

280-193262-A-1-A

280-193262-B-2-A

280-193262-B-3-A

280-193262-A-4-A

280-193262-B-5-A

280-193262-A-6-A

280-193578-G-1-A

280-193578-F-2-A

280-193578-F-3-A

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

280-193627-B-1-A

Reagent

8330 LCS_00137

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240814-136489.b\08140011.D

Lims ID: 8330LCS137

Inj. Date: 14-Aug-2024 18:04:14

Worklist ID: 280-0136489-011

Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4297	85.9	65-135
8 RDX	0.5000	0.4576	91.5	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5132	102.6	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5094	101.9	73-125
12 1,3-Dinitrobenzene	0.5000	0.5076	101.5	78-120
13 Nitrobenzene	0.5000	0.5129	102.6	65-134
14 3,5-Dinitroaniline	0.5000	0.4881	97.6	71-117
15 Tetryl	0.5000	0.5447	108.9	64-128
16 Nitroglycerin	5.00	4.99	99.8	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4855	97.1	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4859	97.2	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4949	99.0	79-120
20 2,6-Dinitrotoluene	0.5000	0.4816	96.3	77-127
21 2,4-Dinitrotoluene	0.5000	0.4875	97.5	78-120
22 o-Nitrotoluene	0.5000	0.4945	98.9	70-127
23 p-Nitrotoluene	0.5000	0.4946	98.9	71-127
24 m-Nitrotoluene	0.5000	0.4967	99.3	73-125
25 PETN	5.00	5.25	105.1	73-127

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

280-195171-B-1-A

280-195171-B-2-A

280-195171-B-3-A

280-195171-B-4-A

280-195171-C-5-A

280-195171-C-6-A

280-195171-B-7-A

280-195171-C-8-A

Reagent

8330 LCSM~~i~~x2_00117



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0199657

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

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

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

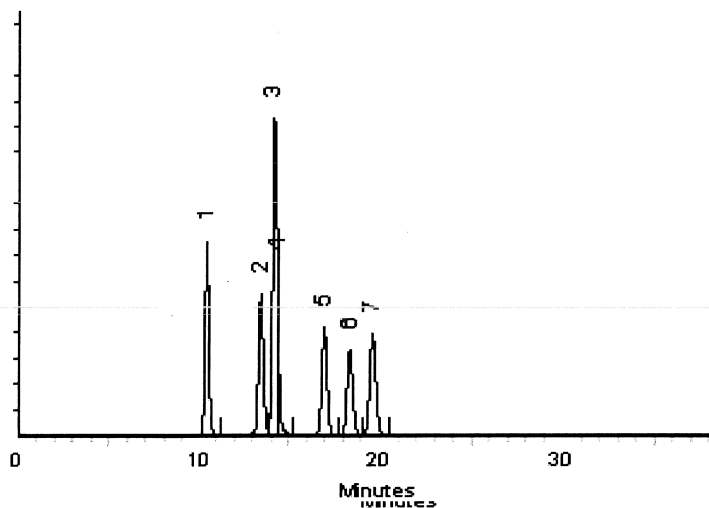
100%A

Det. Type:

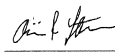
Wavelength: 210nm & 254nm

Inj. Vol

5µl

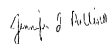


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023

Balance Serial # B251644995


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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 LCSM~~i~~x2_00118



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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. : 31451 **Lot No.:** A0199657

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

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

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

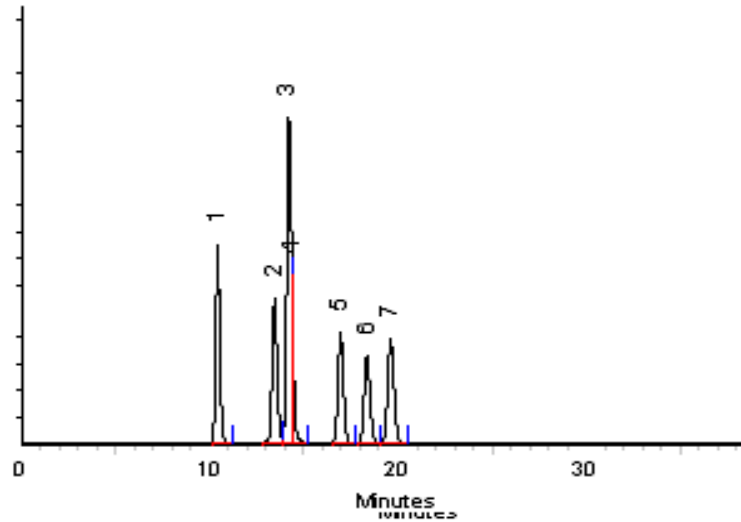
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

5µl



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.

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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 Stock_TS_00024

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Lot Number: 0006684308

Product Number: NAIM-833E-1

Lot Issue Date: 01-Jun-2022

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

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
HMX	1001	± 5 µg/mL		002691-41-0	RM06237
RDX	1001	± 5 µg/mL		000121-82-4	RM10915
1,3,5-trinitrobenzene	1001	± 5 µg/mL		000099-35-4	RM17843
m-dinitrobenzene	1002	± 5 µg/mL		000099-65-0	RM14290
nitrobenzene	1002	± 5 µg/mL		000098-95-3	RM11472
2,4,6-trinitrotoluene (TNT)	1001	± 5 µg/mL		000118-96-7	RM16204
2,4-dinitrotoluene	1002	± 5 µg/mL		000121-14-2	RM10279
tetryl	1003	± 5 µg/mL		000479-45-8	RM14651
2,6-dinitrotoluene	1003	± 5 µg/mL		000606-20-2	RM16636
2-nitrotoluene	1003	± 5 µg/mL		000088-72-2	NT01996
3-nitrotoluene	1002	± 5 µg/mL		000099-08-1	NT02212
4-nitrotoluene	1003	± 5 µg/mL		000099-99-0	NT02096
2-amino-4,6-dinitrotoluene	1003	± 5 µg/mL		035572-78-2	RM04232
4-amino-2,6-dinitrotoluene	1004	± 5 µg/mL		019406-51-0	RM04226

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard 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 above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL 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 analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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.

Reagent

8330 Stock_TS_00025

Reference Material Certificate
Product Information Sheet

Product Name: Stock Standard

Lot Number: 0006684308

Product Number: NAIM-833E-1

Lot Issue Date: 01-Jun-2022

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

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
HMX	1001	± 5 µg/mL		002691-41-0	RM06237
RDX	1001	± 5 µg/mL		000121-82-4	RM10915
1,3,5-trinitrobenzene	1001	± 5 µg/mL		000099-35-4	RM17843
m-dinitrobenzene	1002	± 5 µg/mL		000099-65-0	RM14290
nitrobenzene	1002	± 5 µg/mL		000098-95-3	RM11472
2,4,6-trinitrotoluene (TNT)	1001	± 5 µg/mL		000118-96-7	RM16204
2,4-dinitrotoluene	1002	± 5 µg/mL		000121-14-2	RM10279
tetryl	1003	± 5 µg/mL		000479-45-8	RM14651
2,6-dinitrotoluene	1003	± 5 µg/mL		000606-20-2	RM16636
2-nitrotoluene	1003	± 5 µg/mL		000088-72-2	NT01996
3-nitrotoluene	1002	± 5 µg/mL		000099-08-1	NT02212
4-nitrotoluene	1003	± 5 µg/mL		000099-99-0	NT02096
2-amino-4,6-dinitrotoluene	1003	± 5 µg/mL		035572-78-2	RM04232
4-amino-2,6-dinitrotoluene	1004	± 5 µg/mL		019406-51-0	RM04226

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard 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 above.

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 analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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.

Reagent

8330_NG_Stk_00149



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



10/21/2024
7:17:47 AM

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.:** A0203257

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

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

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty* (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Page 65 of 663

Quality Confirmation Test

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:

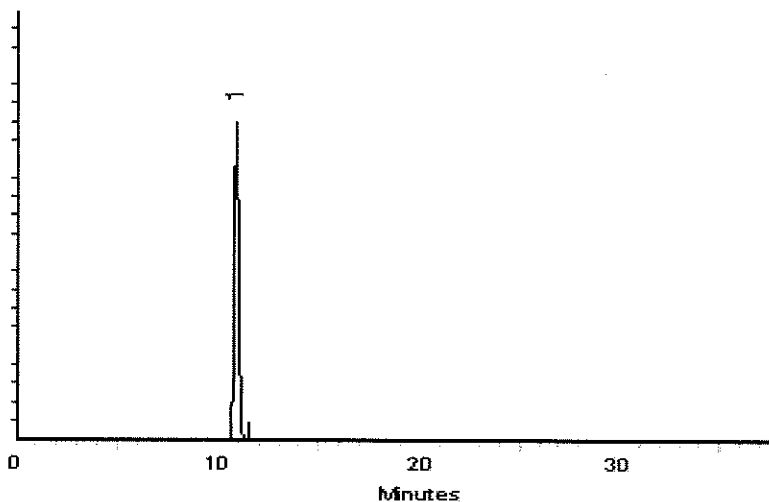
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023

Balance Serial # B442140311

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

Printed: 10/21/2024 7:17:47 AM

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_00151



110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



10/21/2024
7:17:47 AM

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.:** A0203257

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

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

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty* (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Page 69 of 663

Quality Confirmation Test

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:

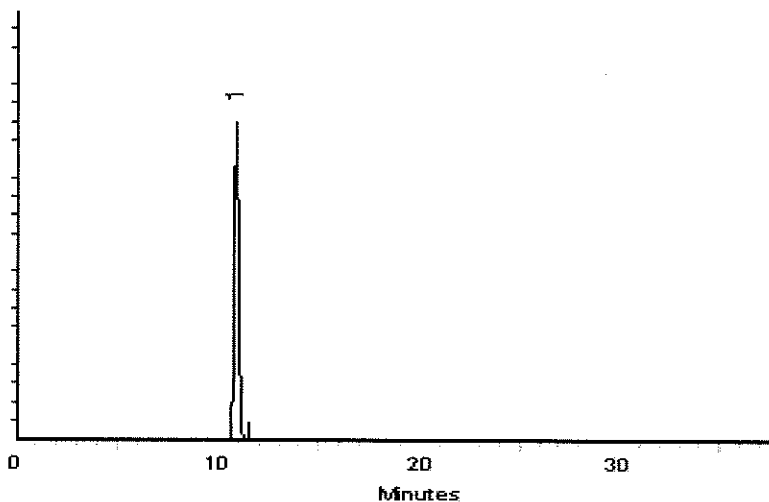
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023

Balance Serial # B442140311

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_00152



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0211998

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

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

Expiration Date : May 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,000.0 µg/mL	+/- 235.9867

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

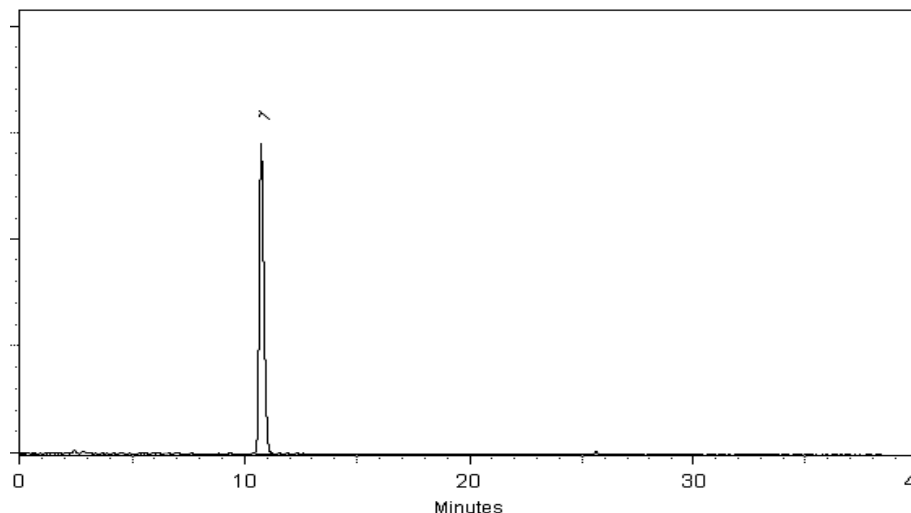
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

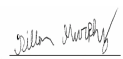
2.0µl



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: 24-May-2024 Balance Serial # 1127510105


Dillan Murphy - Operations Technician I

Date Passed: 03-Jun-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_00153



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0211998

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

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

Expiration Date : May 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,000.0 µg/mL	+/- 235.9867

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

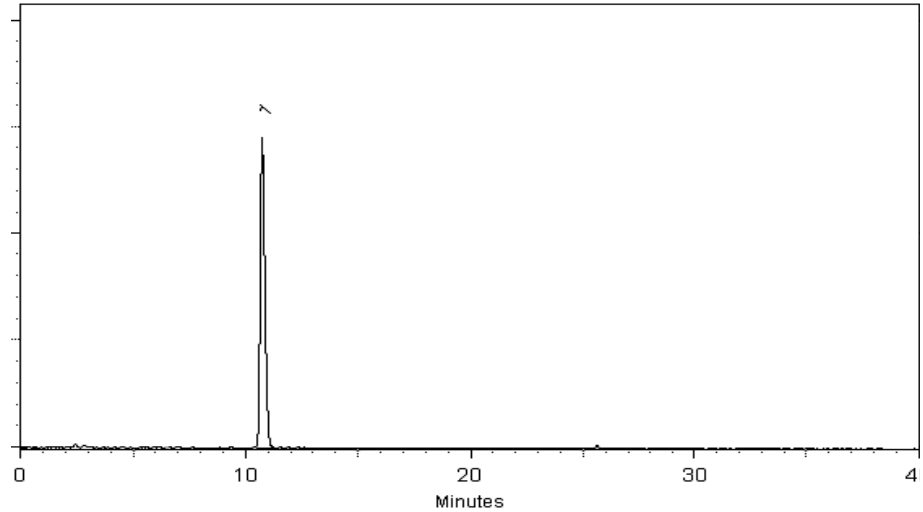
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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: 24-May-2024

Balance Serial # 1127510105


Dillan Murphy - Operations Technician I

Date Passed: 03-Jun-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_NG1000_00015



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0208632
Description : Nitroglycerin Standard
Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2029 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,002.0 µg/mL	+/- 46.7451

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

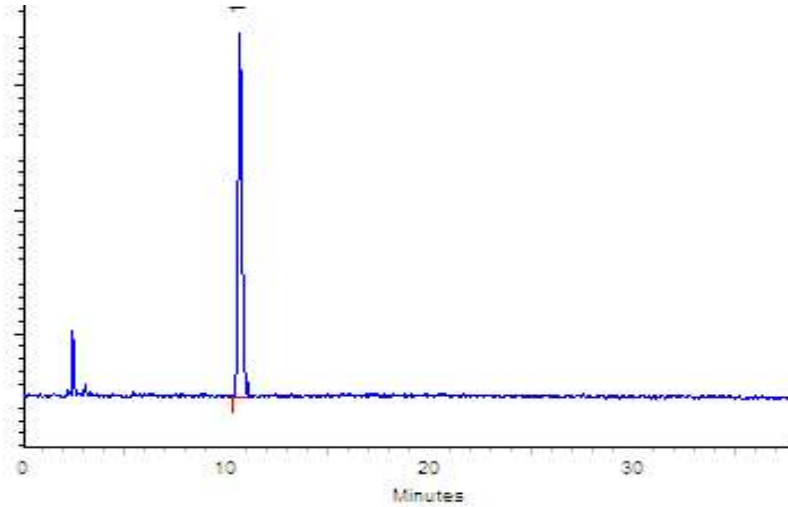
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

5µl



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.

Morgan Craighead - Mix Technician

Date Mixed: 04-Mar-2024

Balance Serial # 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Mar-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_NG1000_00017



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0213231

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

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

Expiration Date : June 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,004.0 µg/mL	+/- 46.8384

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

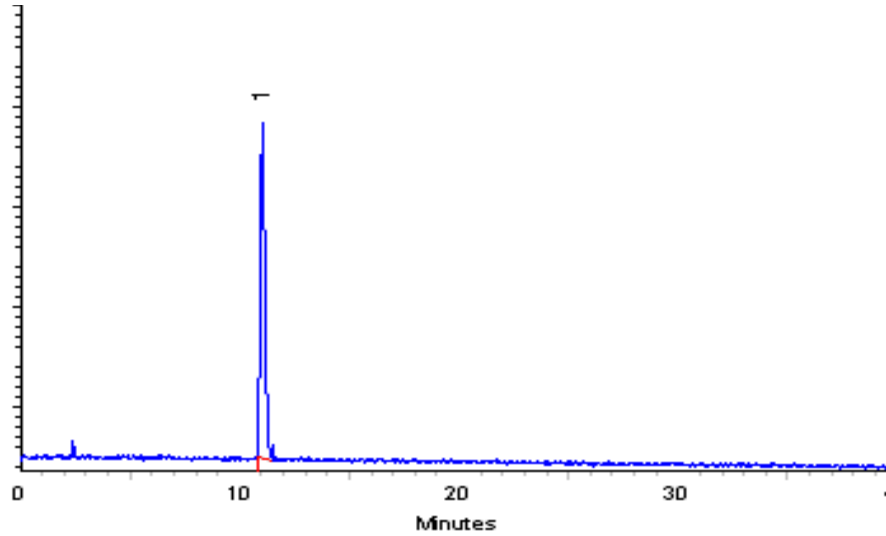
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

5µl

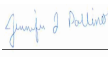


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Brittany Federinko - Operations Tech I

Date Mixed: 26-Jun-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-Jul-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_PETN_Stk_00157



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0205209
Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

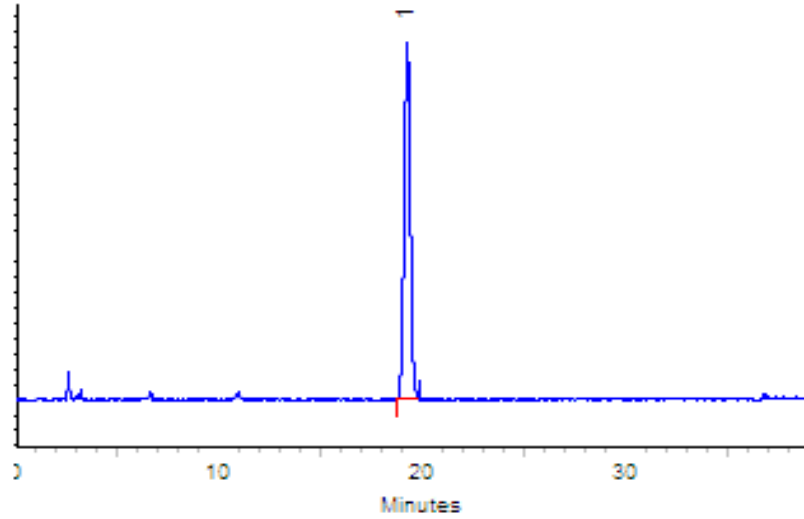
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

1µl



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.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_PETN_Stk_00158



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

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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. : 568872 **Lot No.:** A0205209

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

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

Expiration Date : December 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

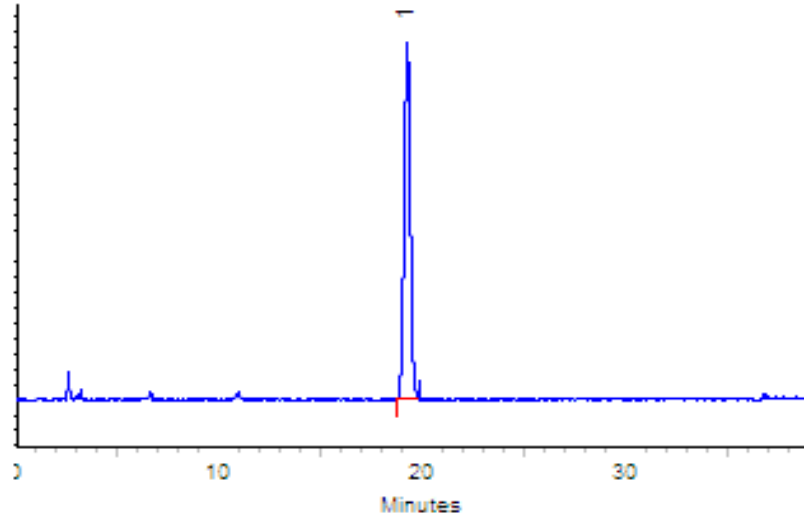
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

1µl



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Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

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:

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_PETN_Stk_00159



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0205209

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

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

Expiration Date : December 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

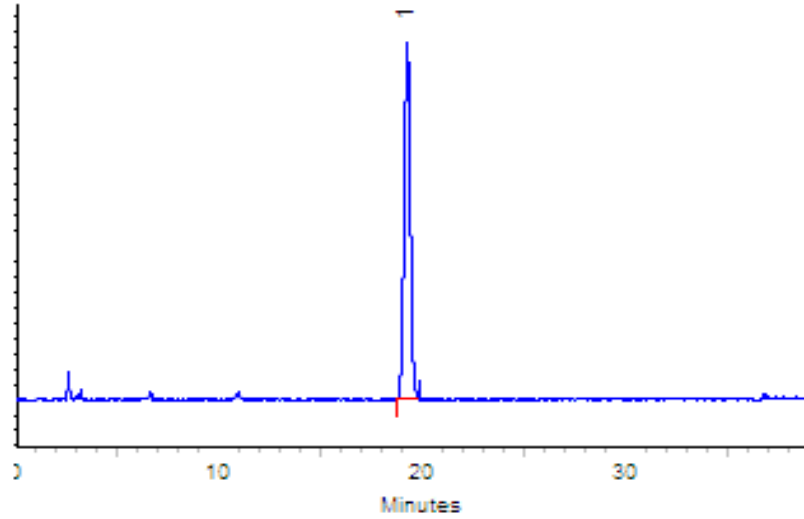
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

1µl



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.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

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.
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- 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:

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_PETN_Stk_00160



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0205209
Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

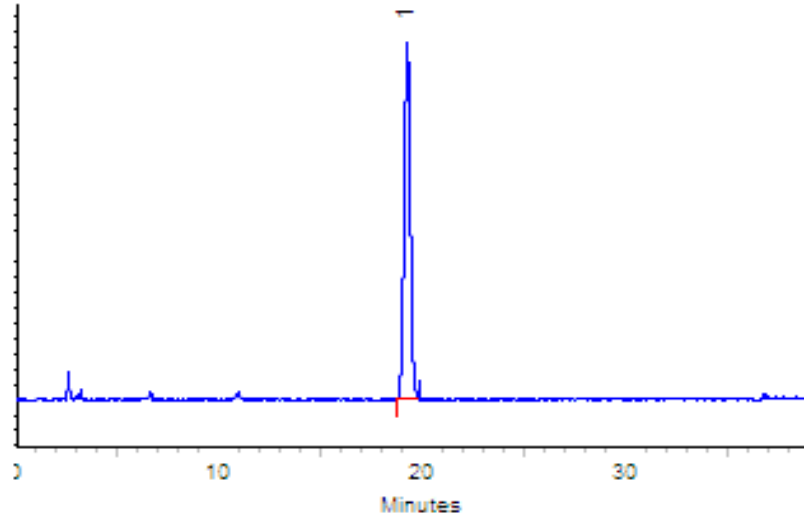
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

1µl



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.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

REVIEWED

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.
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Reagent

8330_PETN1000_00018



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Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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. : 31600 **Lot No.:** A0207895

Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul

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

Expiration Date : February 28, 2029 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,006.3 µg/mL	+/- 46.9434

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

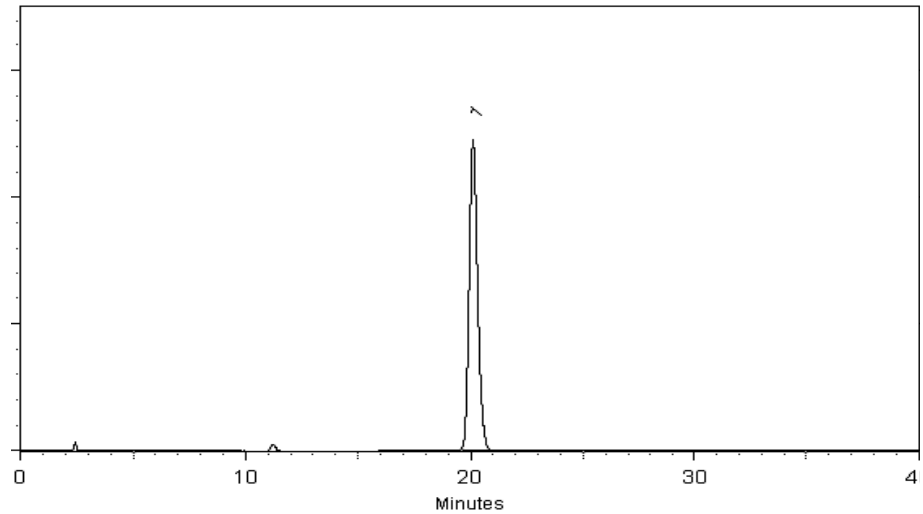
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2µl



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.

John Friedline - Operations Technician I

Date Mixed: 15-Feb-2024

Balance Serial # 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 20-Feb-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_PETN1000_00020



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Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 31600 **Lot No.:** A0211856
Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2029 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,003.8 µg/mL	+/- 46.8267

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

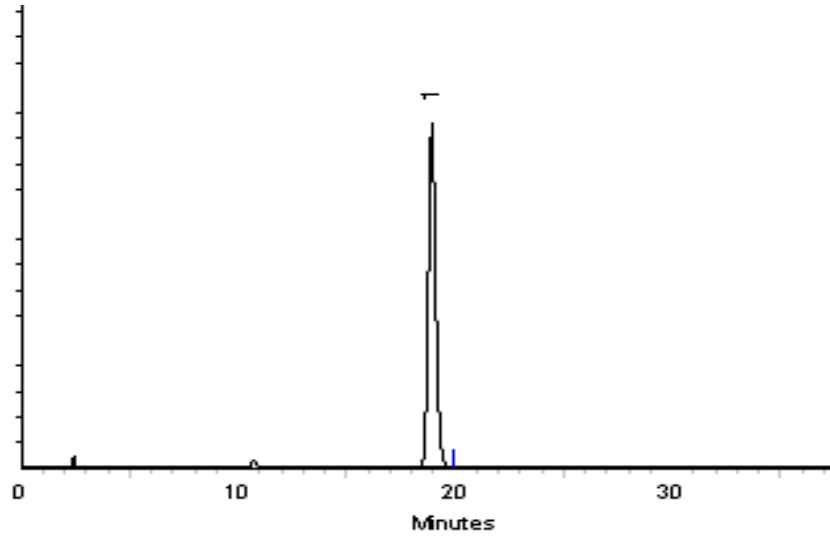
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Brittany Federinko - Operations Tech I

Date Mixed: 22-May-2024

Balance Serial # 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-May-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

833035DNASTk_00062



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4

Description: 3,5-Dinitroaniline

Lot: 223041214-01

Solvent: Methanol (50%)
Acetonitrile (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Dec 6, 2023

Expiration: Jan 6, 2025

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity ³ %	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.8	100.8

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

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 Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. 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.

² All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

833035DNASTk_00064



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4

Description: 3,5-Dinitroaniline

Lot: 222011692-04

Solvent: Methanol (50%)
Acetonitrile (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Jun 17, 2024

Expiration: Jul 17, 2026

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



AR-1463

Component	CAS #	Purity ³ %	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

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 Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$ and was determined in accordance with ISO 17034. 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.

² All weights are traceable through NIST, Test No. 684/289871-17

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8330LCSMix1_00153



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0196548

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

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

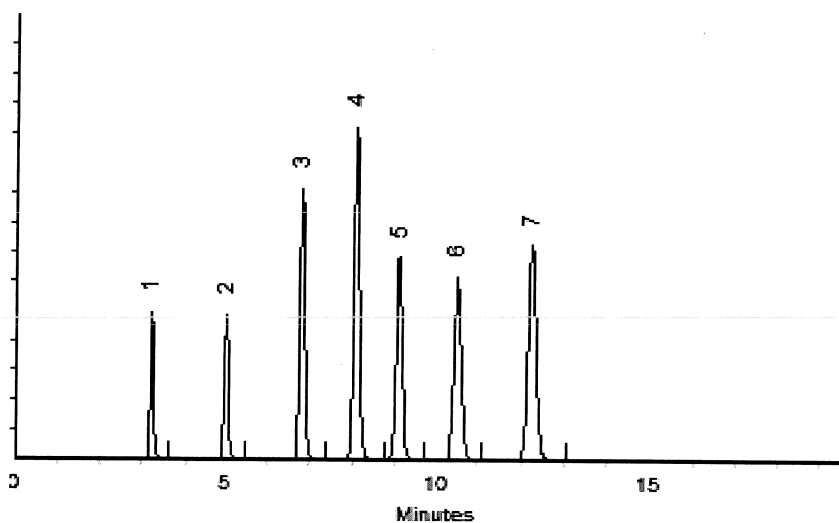
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2µl



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.

Sam Moodler

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023

Balance Serial # B251644995

Jennifer J. Pollino

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330LCSMix1_00154



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0196548

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

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

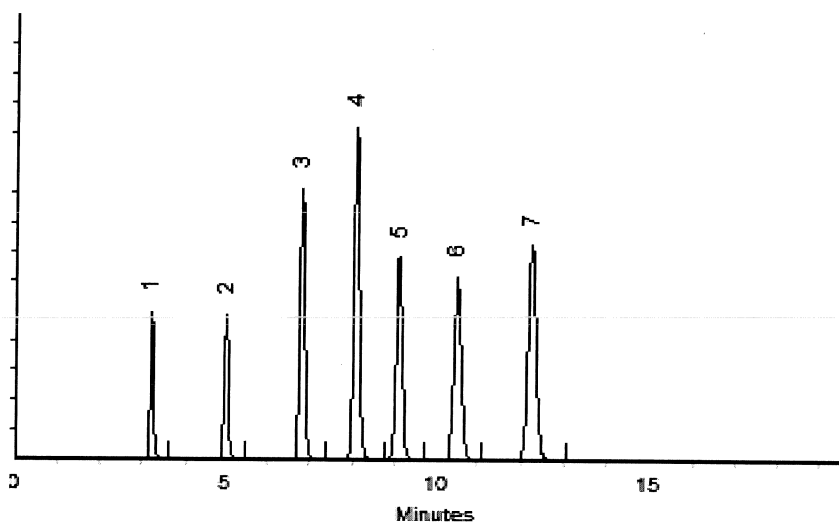
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2µl



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.

Sam Moodler

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023

Balance Serial # B251644995

Jennifer J. Pollino

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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_00077



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 223031306-01

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information

Date Certified: Oct 27, 2023

Expiration: Nov 27, 2025

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Signal Word: Danger



AR-1463

Component	CAS #	Purity ³ %	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

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 Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. 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.

² All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8330PAsTkPS_00078



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 223031306-01

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Oct 27, 2023

Expiration: Nov 27, 2025

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



AR-1463

Component	CAS #	Purity ³ %	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

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 Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. 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.

² All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

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- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8330Surrogate_00158

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240809-136341.b\08090011.D

Lims ID: 8330Surr158Inj. Date: 09-Aug-2024 15:22:10

Worklist ID: 280-0136341-011Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
\$ 10 1,2-Dinitrobenzene	0.5000	0.5401	108.0	83-119

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

- 280-194788-A-1-A280-194788-B-2-A280-194788-B-3-A
- 280-194788-B-4-A280-194788-A-5-A280-194788-B-6-A
- 280-194788-B-7-A280-194788-B-8-A280-194788-A-9-A
- 280-194788-A-10-A280-194788-B-11-A280-194788-B-12-A
- 280-194788-A-13-A280-194788-A-14-A280-194788-A-15-A
- 280-194788-A-16-A280-194788-B-17-A280-194788-B-18-A
- 280-194788-A-19-A280-194788-B-20-A

Reagent

8330Surrogate_00159

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240919-137694.b\09190011.D

Lims ID: 8330Surr159Inj. Date: 19-Sep-2024 15:53:23

Worklist ID: 280-0137694-011Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
\$ 10 1,2-Dinitrobenzene	0.5000	0.5089	101.8	83-119

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

280-196605-A-1-A280-196605-A-2-A280-196605-B-3-A

280-196715-B-1-A280-196715-A-2-A280-196715-B-3-A

280-196715-A-4-A

Reagent

8330SurrStkSS_00324



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

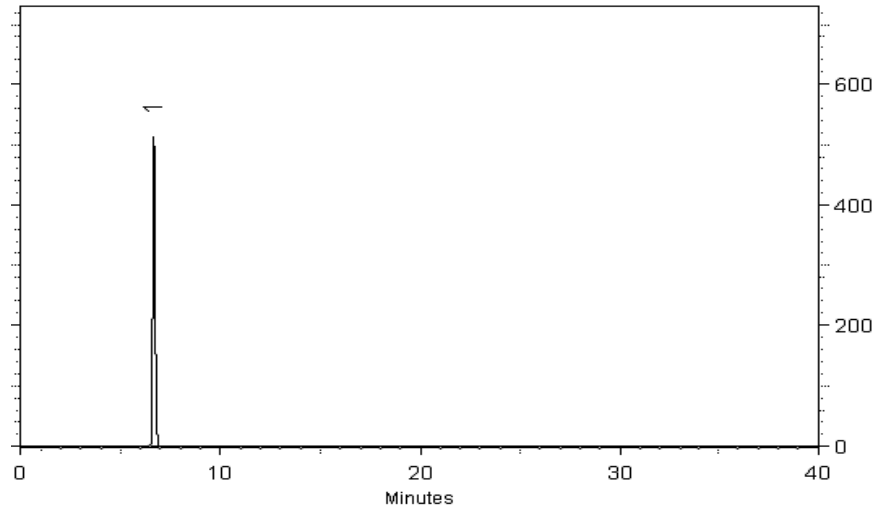
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00325



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460

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

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

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

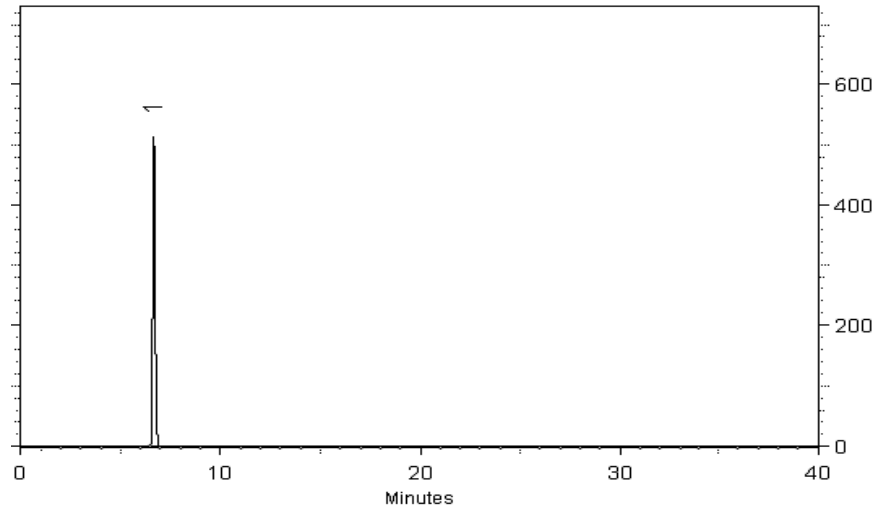
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00326



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

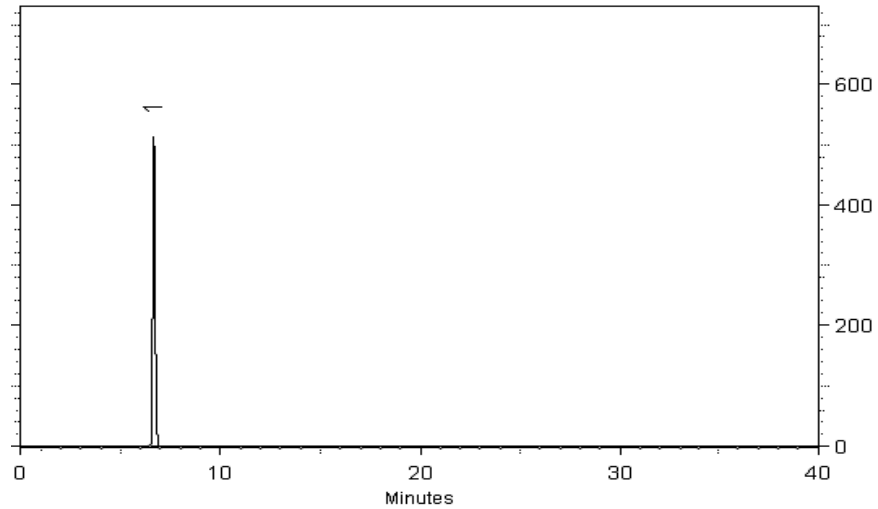
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00327



110 Benner Circle
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Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

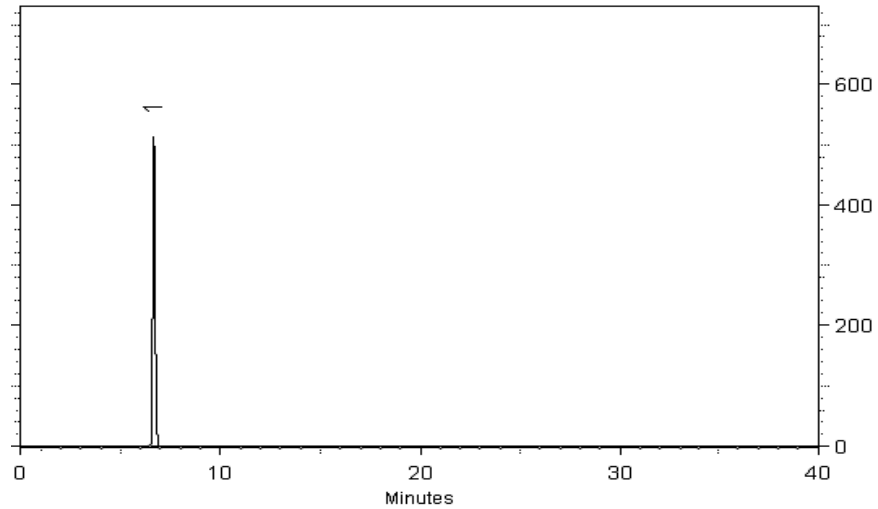
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00328



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

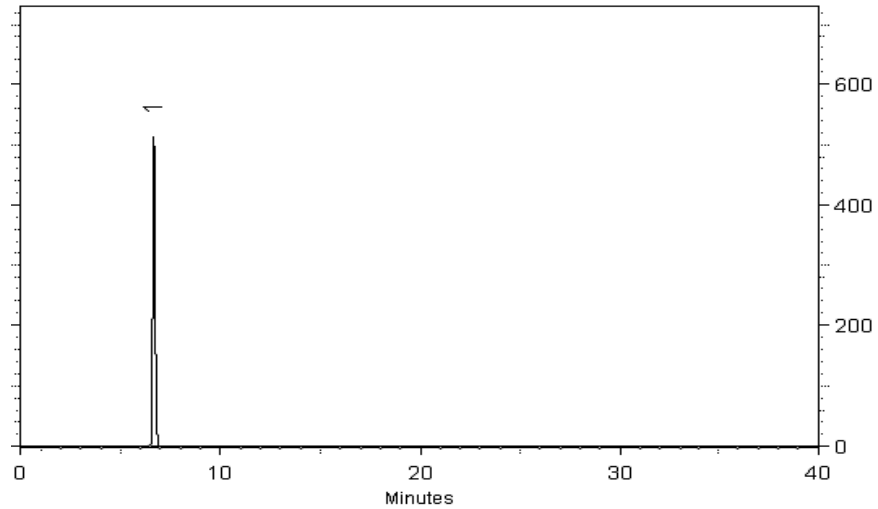
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00329



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

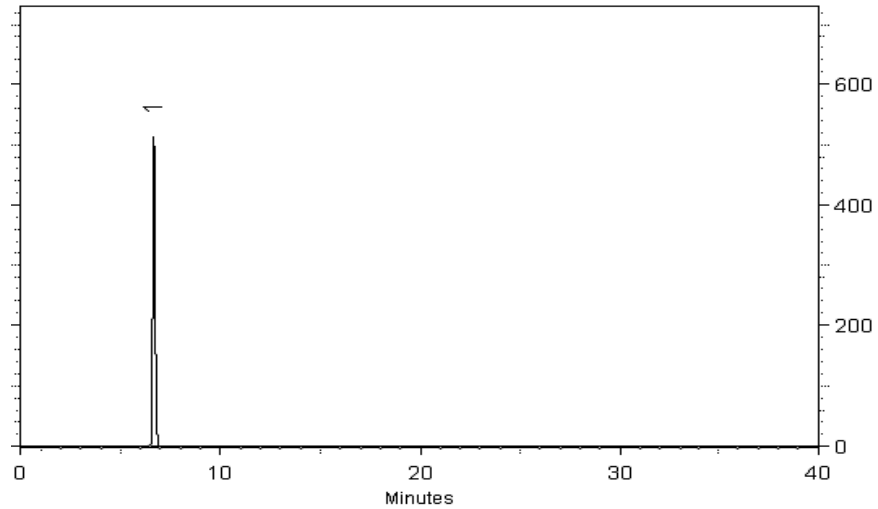
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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

8330SurrStkSS_00336



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0211455

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

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

Expiration Date : May 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231229CTH	99%	1,000.0 µg/mL	+/- 56.1888

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

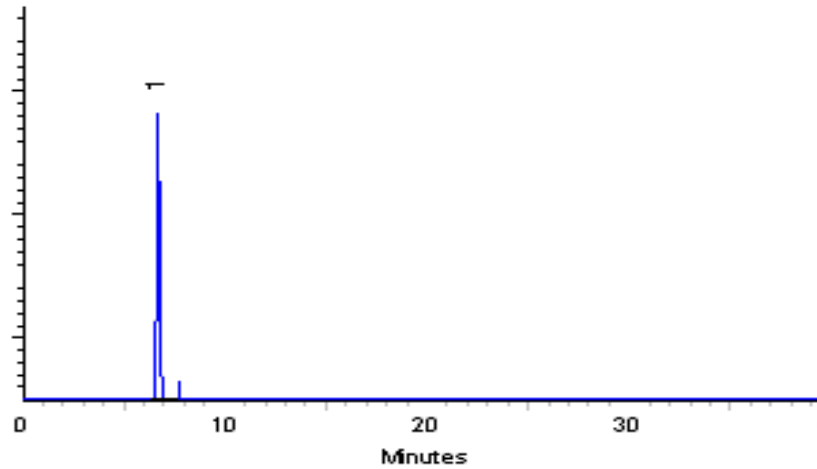
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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.

Wilner Torres
Wilner Torres - Operation Tech I

Date Mixed: 15-May-2024 **Balance Serial #** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-May-2024

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.

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00337



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 31453 **Lot No.:** A0211455

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

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

Expiration Date : May 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231229CTH	99%	1,000.0 µg/mL	+/- 56.1888

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

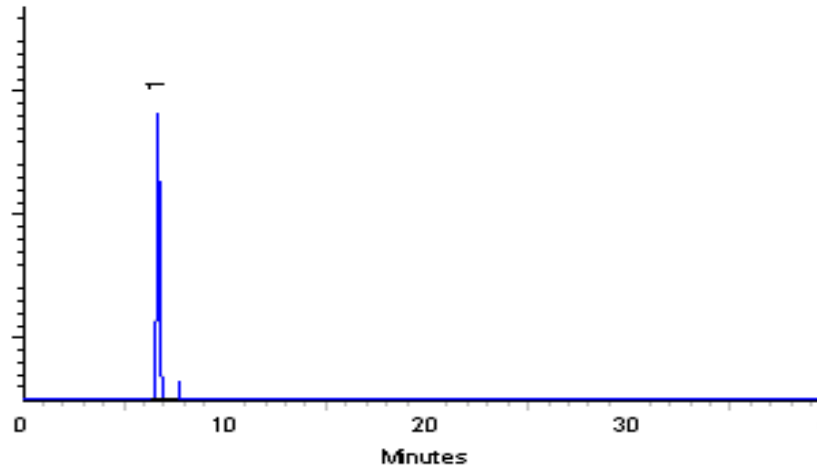
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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Wilner Torres
Wilner Torres - Operation Tech I

Date Mixed: 15-May-2024 **Balance Serial #** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-May-2024

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.
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Certified Uncertainty Value Notes:

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Manufacturing Notes:

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Handling Notes:

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Reagent

8330SurrStkSS_00339



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 31453 **Lot No.:** A0211455

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

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

Expiration Date : May 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231229CTH	99%	1,000.0 µg/mL	+/- 56.1888

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

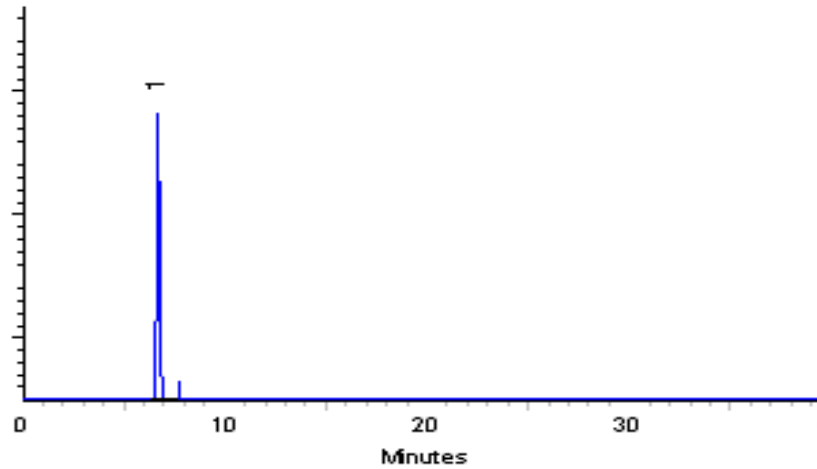
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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Wilner Torres
Wilner Torres - Operation Tech I

Date Mixed: 15-May-2024 **Balance Serial #** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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Handling Notes:

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Reagent

8330SurrStkSS_00340



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0211455

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

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

Expiration Date : May 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231229CTH	99%	1,000.0 µg/mL	+/- 56.1888

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

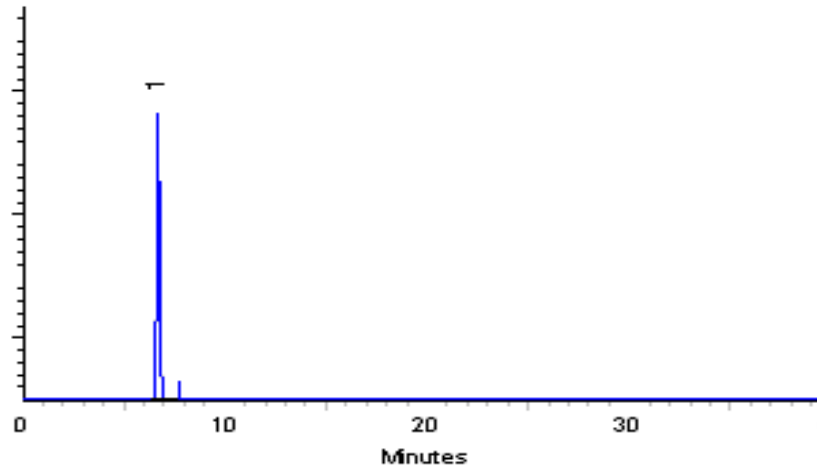
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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Wilner Torres
Wilner Torres - Operation Tech I

Date Mixed: 15-May-2024 **Balance Serial #** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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

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Reagent

8330SurrStock_00173



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS

Description: 1,2-Dinitrobenzene

Lot: 219051500

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: May 22, 2019

Expiration: May 22, 2029

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/FID)	(µg/mL)	(µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

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. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. 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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

8330SurrStock_00174



CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS

Description: 1,2-Dinitrobenzene

Lot: 219051500

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: May 22, 2019

Expiration: May 22, 2029

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/FID)	(µg/mL)	(µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

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. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. 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

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

IC N03 cal_00030

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO₃)

Lot Number: 1304R00

Product Number: 5459

Manufacture Date: APR 27, 2023

Expiration Date: OCT 2024

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
Chloroform	67-66-3	
Potassium Nitrate	7757-79-1	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO ₃ -N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO ₃ -N	EPA (353.3)

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)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

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



Heidi J Green (04/27/2023)

Operations Manager

This document 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 NO3 ICV_00020

▪ Certificate of Analysis ▪

Product: 1000 mg/L Nitrate as N (NO₃-N)
Catalog Number: 052-125mL, 991-500mL
Lot No. 341022m
Starting Material: Potassium Nitrate (KNO₃)
Matrix: 18 megohm deionized water
Density: 1.0066 ± 0.0003 g/mL, 20.8 °C and 766 mm Hg
Verification Method: Ion Chromatography
Certificate Issue Date: December 13, 2022
Expiration Date: October 13, 2024
Revision Number: Original

CERTIFICATION

Parameter	Certified Value ¹	Uncertainty ²	NIST Traceability	
	mg/L	%	SRM Number ³	Recovery %
Nitrate as N (NO ₃ -N)	1000	0.672	3185	102

▪ Certificate of Analysis ▪

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the 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.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor ($k=2$). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:

$$U_{\text{expanded}} = k * \text{SQRT}((U_{\text{char}})^2 + (U_{\text{homogen}})^2 + (U_{\text{LTS}})^2 + (U_{\text{STS}})^2 + (U_{\text{RSS}})^2)$$

Where:

U_{expanded} = Expanded uncertainty.

k = Coverage factor.

U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.

U_{homogen} = Standard uncertainty of the homogeneity assessment.

U_{LTS} = Standard uncertainty associated with long-term stability.

U_{STS} = Standard uncertainty associated with short-term (transport) stability.

U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = $[(\% \text{ recovery ERA certified reference material}) / (\% \text{ recovery NIST SRM})] * 100$

The traceability data shown were compiled by analyzing this ERA certified reference material and/or its associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability.** This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage:** 20-25°C

6. **Intended Use:** This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size:** ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling:** Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety:** ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller

Quality Officer
Matthew Seebeck





Reagent

MNX , TNX , DNX _ 00118

Reference Material Certificate
Product Information Sheet

Product Name: Custom Standard

Lot Number: 0006801479

Product Number: CUS-23984

Lot Issue Date: 21-Jun-2024

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

Expiration Date: 31-Jul-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3 ±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1 ±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7 ±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard 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 above.

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 analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard 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.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

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

Reagent

NH3 CAL STD_00036

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH₃)

Lot Number: 2312G14

Product Number: 5455

Manufacture Date: DEC 22, 2023

Expiration Date: JUN 2025

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 NH ₃ -N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -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
5455-4	120 mL natural poly	18 months

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



Jose Pena (12/22/2023)

Operations Manager

This document 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_00034

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Ion Chromatography Solution
Catalog Number: ICNNH41
Lot Number: S2-NH700817
Matrix: H₂O
Value / Analyte(s): 1 000 µg/mL ea:
Ammonium as N
Starting Material: Ammonium chloride
Starting Material Lot#: 1736
Starting Material Purity: 99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 4 µg/mL
Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	995 ± 4 µg/mL Fajans NIST SRM 999c Lot Number: 999c
Assay Method #2	1002 ± 4 µg/mL IC Assay NIST SRM 194a Lot Number: 194a

- 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/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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.

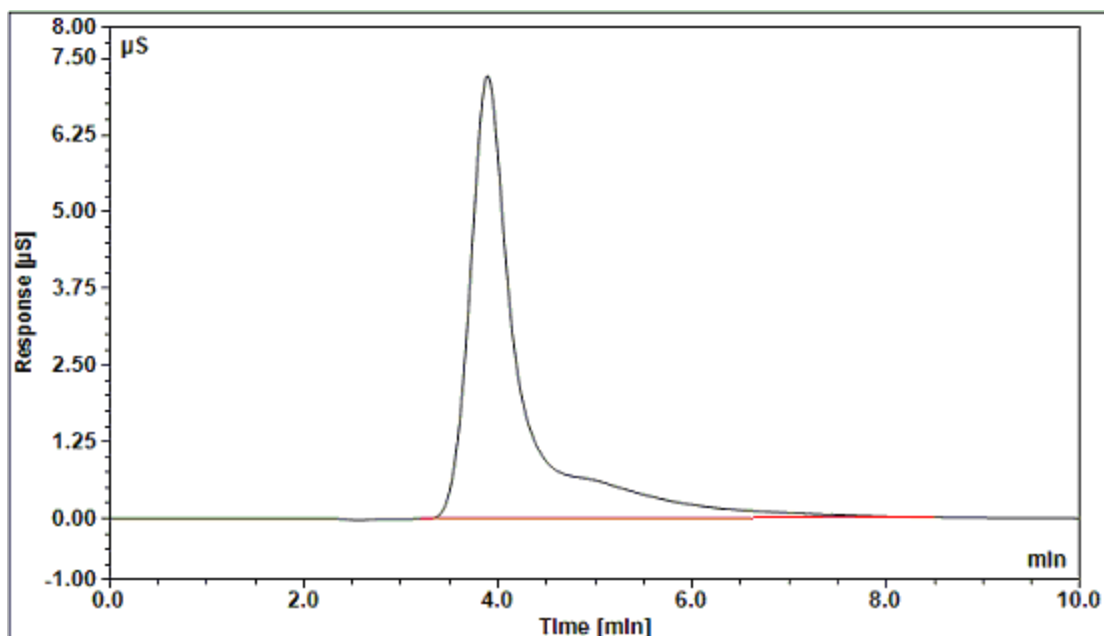
4.2 Balance Calibration

- 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

Column Temp: 30°C

Suppressor/ N/A

Cell Temp: 35°C

Chemical

Suppression:

Scale X-Axis: minutes

Cation Self Regen

Scale Y-Axis: 8 µS/cm

Suppressor/ CERS 500 2mm

Chemical

Concentration: 10 µg/g

Suppression:

Suppressor 8 mA

Current/ Chemical

Suppressant:

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 17034 "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

January 25, 2021

- 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

- **January 25, 2025**

- 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:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Reagent

NO2 ICV std_00042



A Waters Company

Certified Reference Material

▪ **Certificate of Analysis** ▪

Product: 1000 mg/L Nitrite as N ($\text{NO}_2\text{-N}$)
Catalog Number: 053-125mL, 990-500mL
Lot No. 050423m
Starting Material: Sodium Nitrite (NaNO_2)
Matrix: 18 megohm deionized water
Density: 1.0004 ± 0.0003 g/mL 21.7 °C and 762 mm Hg
Verification Method: Ion Chromatography
Certificate Issue Date: April 26, 2023
Expiration Date: April 5, 2025
Revision Number: Original

CERTIFICATION

Parameter	Certified Value ¹	Uncertainty ²	NIST Traceability	
	mg/L	%	SRM Number ³	Recovery %
Nitrite as N ($\text{NO}_2\text{-N}$)	1000	0.961	-	-

Reagent

PicricARestek_00125



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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.:** A0195778

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX
REQUIRED* SHIP FED EX GROUND ONLY

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

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Picric Acid	88-89-1	06130CU	99%	1,002.0 µg/mL	+/- 46.7451

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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:**

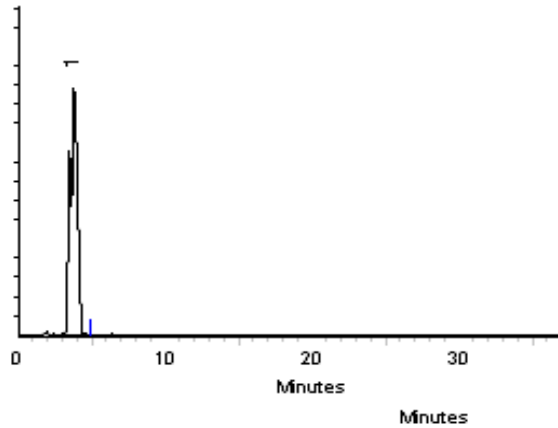
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

0.2µl



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.

Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023

Balance Serial # 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Mar-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
WBGmw-006-240901-G W	280-197842-2	94 M	
WBGmw-006-240901-G W	280-197842-2		92
FBQmw-175-240901-G W	280-197842-3	93	
FBQmw-175-240901-G W	280-197842-3		103
WBGmw-020-240901-G W	280-197842-4	103 M	
WBGmw-016-240901-G W	280-197842-5	89 M	
WBGmw-021-240901-G W	280-197842-6	92	
WBGmw-009-240901-G W	280-197842-7	102 M	
WBGmw-009-240901-G W	280-197842-7		97
WBGmw-018-240901-G W	280-197842-8	91 M	
WBGmw-018-240901-G W	280-197842-8		91
WBGmw-017-240901-G W	280-197842-9	97 M	
WBGmw-014-240901-G W	280-197842-10	93 M	
	MB 280-671072/1-A	101	
	LCS 280-671072/2-A	101	

12DNB = 1,2-Dinitrobenzene

QC LIMITS
83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 10160040.D
 Lab ID: LCS 280-671072/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.27	113	73-125	M
1,3-Dinitrobenzene	2.00	2.12	106	78-120	
2,4,6-Trinitrotoluene	2.00	2.05	102	71-123	
2,4-Dinitrotoluene	2.00	2.02	101	78-120	
2,6-Dinitrotoluene	2.00	2.03	102	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.06	103	79-120	
2-Nitrotoluene	2.00	1.62	81	70-127	
3-Nitrotoluene	2.00	1.70	85	73-125	
4-Amino-2,6-dinitrotoluene	2.00	2.03	101	76-125	
4-Nitrotoluene	2.00	1.69	84	71-127	
HMX	2.00	1.94	97	65-135	
Nitrobenzene	2.00	1.84	92	65-134	
Nitroglycerin	20.0	23.3	117	74-127	
PETN	20.0	22.4	112	73-127	
RDX	2.00	2.07	104	68-130	M
Tetryl	2.00	2.11	105	64-128	

Column to be used to flag recovery and RPD values

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Lab Sample ID: MB 280-671072/1-A
Matrix: Water Date Extracted: 10/16/2024 10:50
Lab File ID: (1) 10160039.D Lab File ID: (2) _____
Date Analyzed: (1) 10/17/2024 03:10 Date Analyzed: (2) _____
Instrument ID: (1) CHHPLC_X3 Instrument ID: (2) CHHPLC_X5
GC Column: (1) UltraCarb5uO ID: 4.6 (mm) GC Column: (2) Luna-phenylh ID: 4.6 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-671072/2-A	10/17/2024 03:32	
WBGmw-006-240901-GW	280-197842-2	10/17/2024 03:54	10/17/2024 23:29
FBQmw-175-240901-GW	280-197842-3	10/17/2024 04:16	10/18/2024 00:04
WBGmw-020-240901-GW	280-197842-4	10/17/2024 04:38	
WBGmw-016-240901-GW	280-197842-5	10/17/2024 05:00	
WBGmw-021-240901-GW	280-197842-6	10/17/2024 05:22	
WBGmw-009-240901-GW	280-197842-7	10/17/2024 05:44	10/18/2024 00:38
WBGmw-018-240901-GW	280-197842-8	10/17/2024 06:06	10/18/2024 01:13
WBGmw-017-240901-GW	280-197842-9	10/17/2024 06:27	
WBGmw-014-240901-GW	280-197842-10	10/17/2024 07:11	

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Client Sample ID: WBGmw-006-240901-GW Lab Sample ID: 280-197842-2
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 10/17/2024 03:54 Date Analyzed (2): 10/17/2024 23:29
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.58	6.42	6.72	3.3		4.5
	2		6.24	6.09	6.39	3.2		
RDX	1		7.51	7.34	7.64	7.3		5.2
	2		8.33	8.17	8.47	6.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: FBQmw-175-240901-GW Lab Sample ID: 280-197842-3
Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
Date Analyzed (1): 10/17/2024 04:16 Date Analyzed (2): 10/18/2024 00:04
GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Tetryl	1		9.67	9.51	9.81	0.12		3.7
	2		20.95	20.74	21.04	0.13		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Client Sample ID: WBGmw-009-240901-GW Lab Sample ID: 280-197842-7
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 10/17/2024 05:44 Date Analyzed (2): 10/18/2024 00:38
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.57	6.42	6.72	1.3		31.5
	2		6.23	6.09	6.39	0.93		
RDX	1		7.50	7.34	7.64	2.1		9.4
	2		8.32	8.17	8.47	1.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: WBGmw-018-240901-GW Lab Sample ID: 280-197842-8
Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
Date Analyzed (1): 10/17/2024 06:06 Date Analyzed (2): 10/18/2024 01:13
GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.50	7.34	7.64	0.12		7.0
	2		8.31	8.17	8.47	0.13		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-006-240901-GW</u>	Lab Sample ID: <u>280-197842-2</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160041.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 09:29</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>476.9(mL)</u>	Date Analyzed: <u>10/17/2024 03:54</u>
Con. Extract Vol.: <u>5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100(uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	3.3	M	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.97
78-11-5	PETN	1.0	U	1.2	1.0	0.47
121-82-4	RDX	7.3	M	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.12	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160041.D
Lims ID: 280-197842-A-2-A
Client ID: WBGmw-006-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 03:54:22 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-2-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:48:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.578	6.567	0.011	30682	0.3174	M
8 RDX	1	7.505	7.494	0.011	72921	0.6939	M
\$ 10 1,2-Dinitrobenzene	1	8.365	8.360	0.005	24500	0.1879	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1	9.038	9.020	0.018	4445	0.0149	M
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 17-Oct-2024 12:00:42

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160041.d

Injection Date: 17-Oct-2024 03:54:22

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-2-A

Lab Sample ID: 280-197842-2

Worklist Smp#: 41

Client ID: WBGmw-006-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

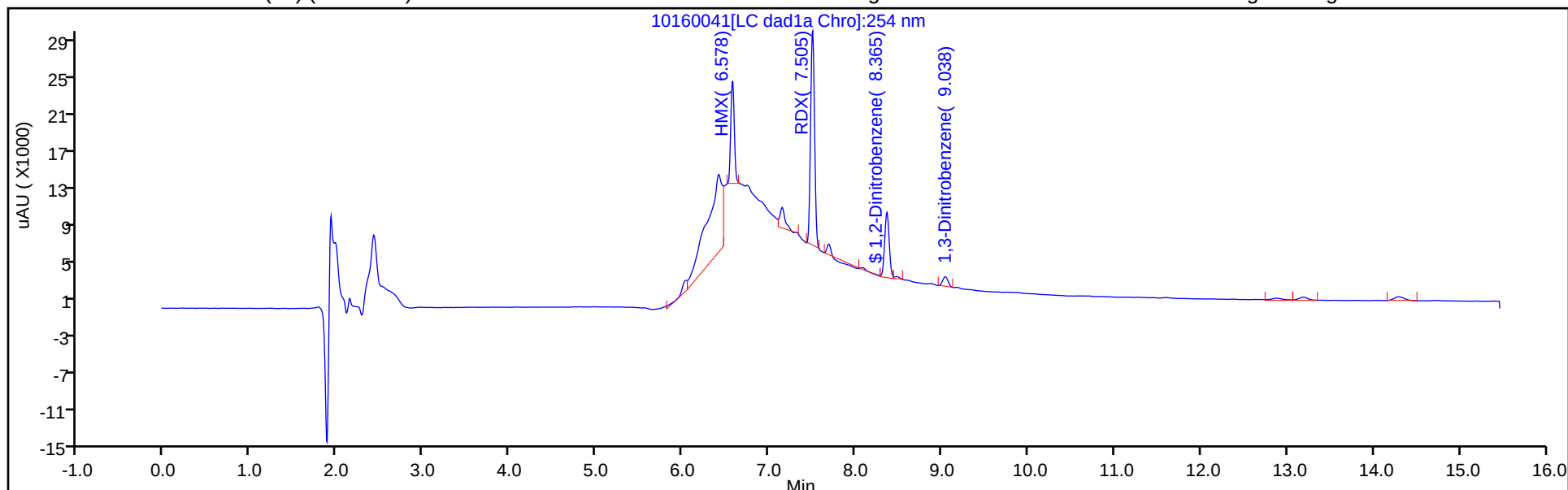
ALS Bottle#: 41

Method: 8330_X3

Limit Group: GCSV - 8330

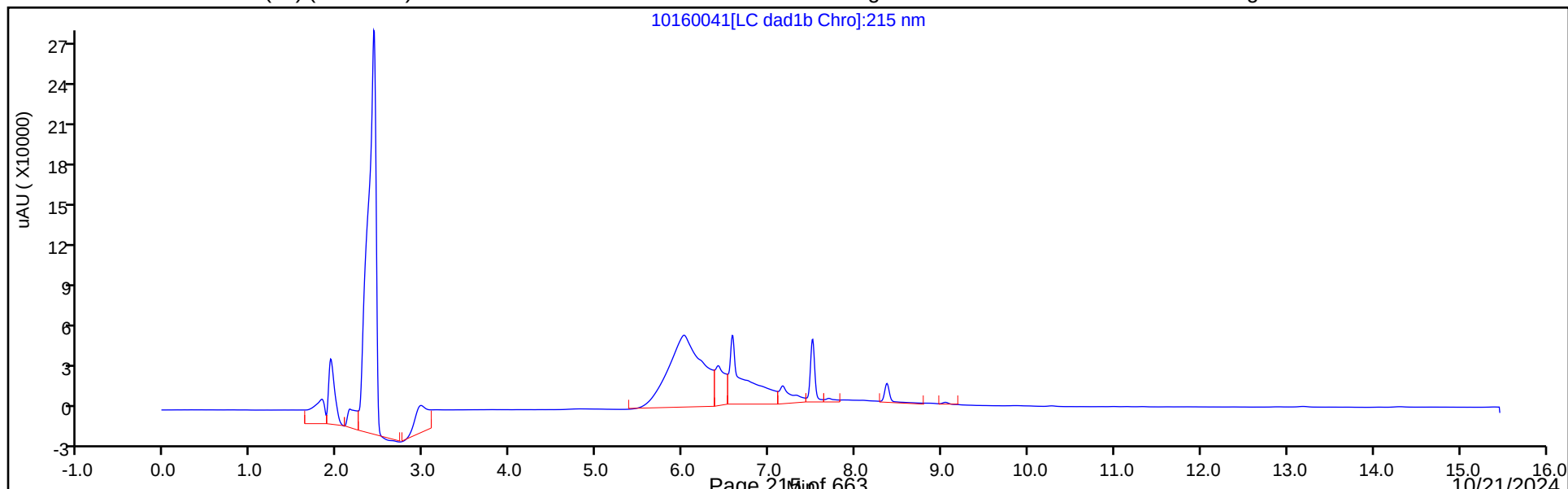
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160041.D
Lims ID: 280-197842-A-2-A
Client ID: WBGmw-006-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 03:54:22 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-2-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:48:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1879	93.93

Eurofins Denver

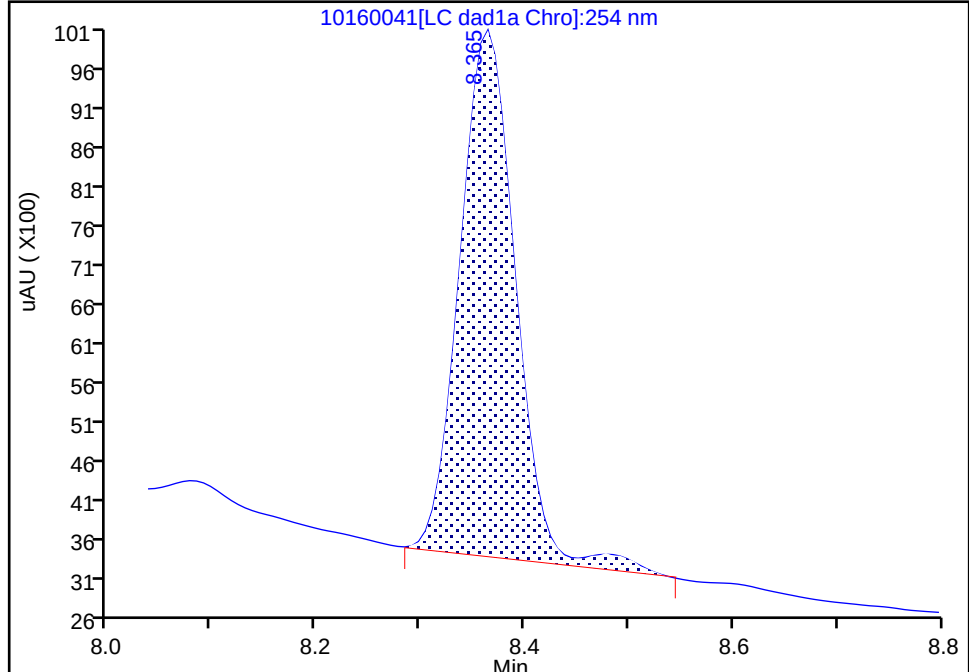
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160041.d
Injection Date: 17-Oct-2024 03:54:22 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

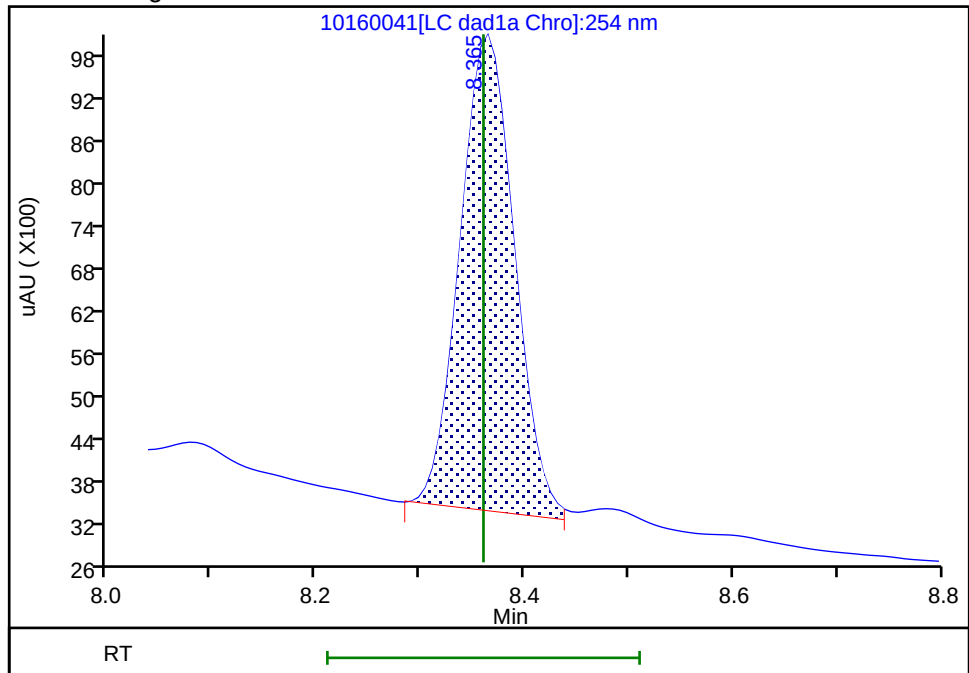
RT: 8.36
Area: 25295
Amount: 0.193966
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 24500
Amount: 0.187869
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:48:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

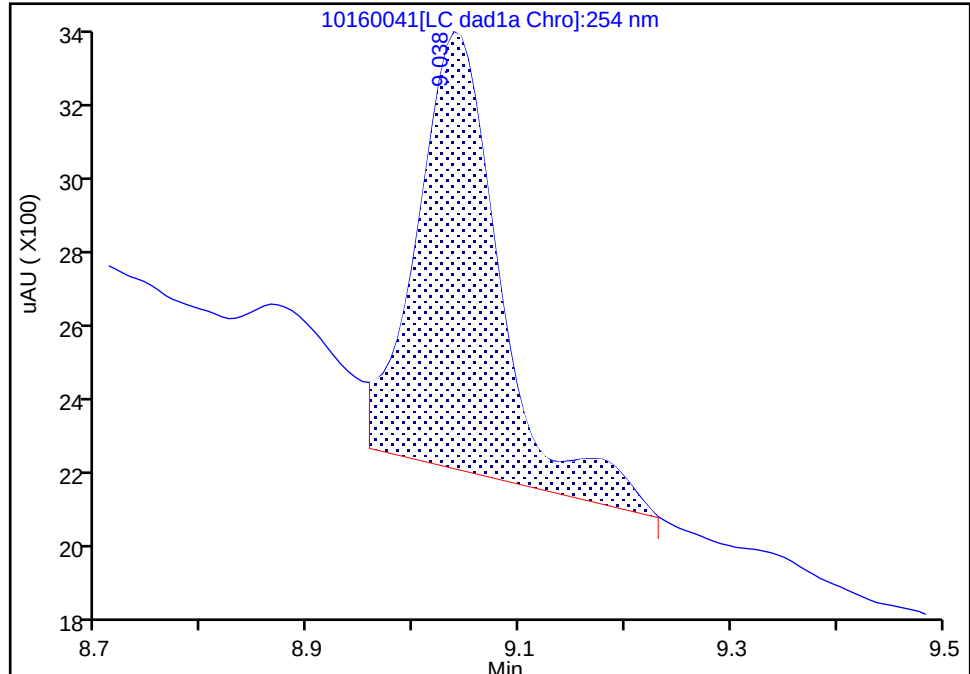
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160041.d
Injection Date: 17-Oct-2024 03:54:22 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

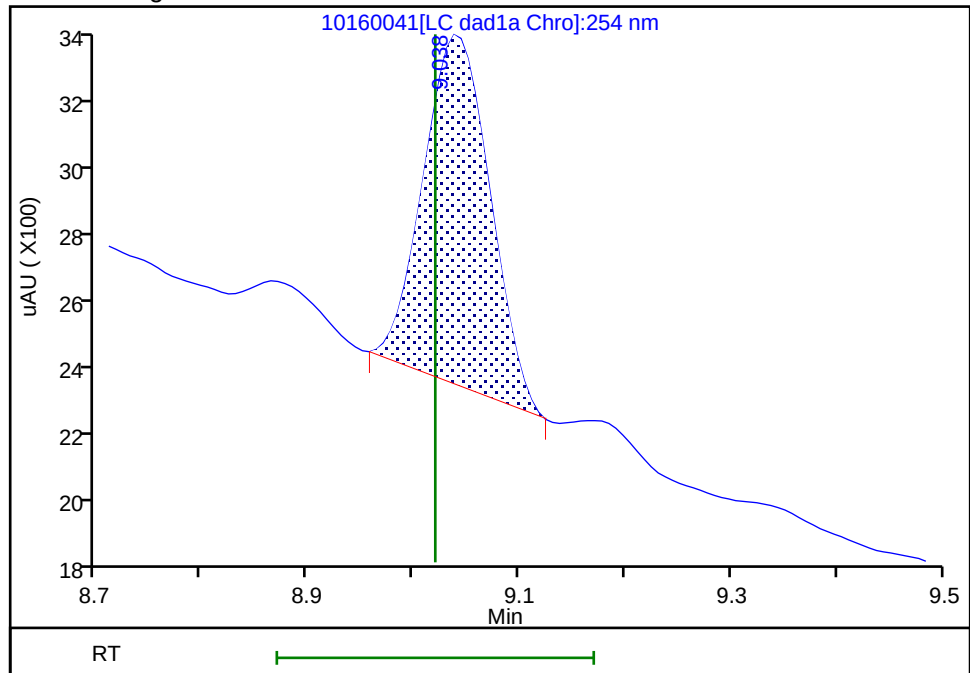
RT: 9.04
Area: 6274
Amount: 0.021037
Amount Units: ug/mL

Processing Integration Results



RT: 9.04
Area: 4445
Amount: 0.014905
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:48:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

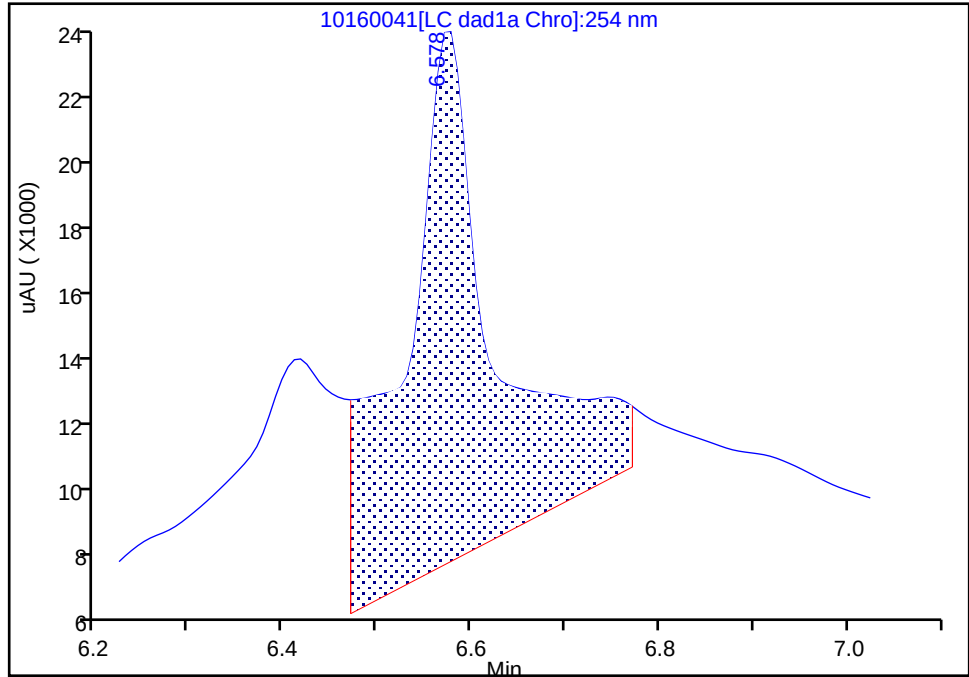
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160041.d
Injection Date: 17-Oct-2024 03:54:22 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

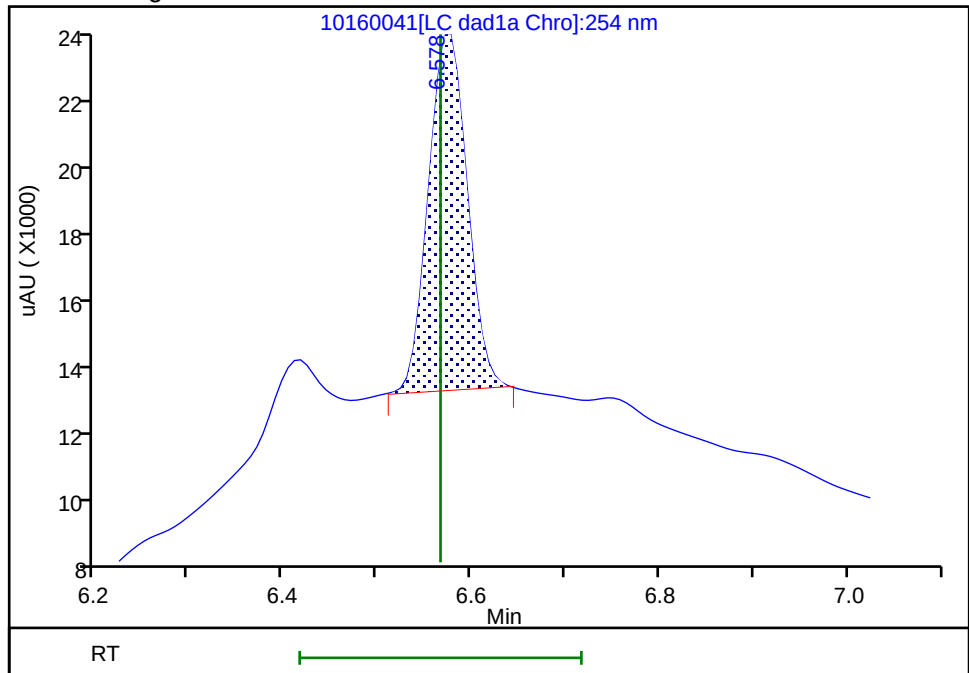
RT: 6.58
Area: 110091
Amount: 1.139034
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 30682
Amount: 0.317445
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:48:44 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

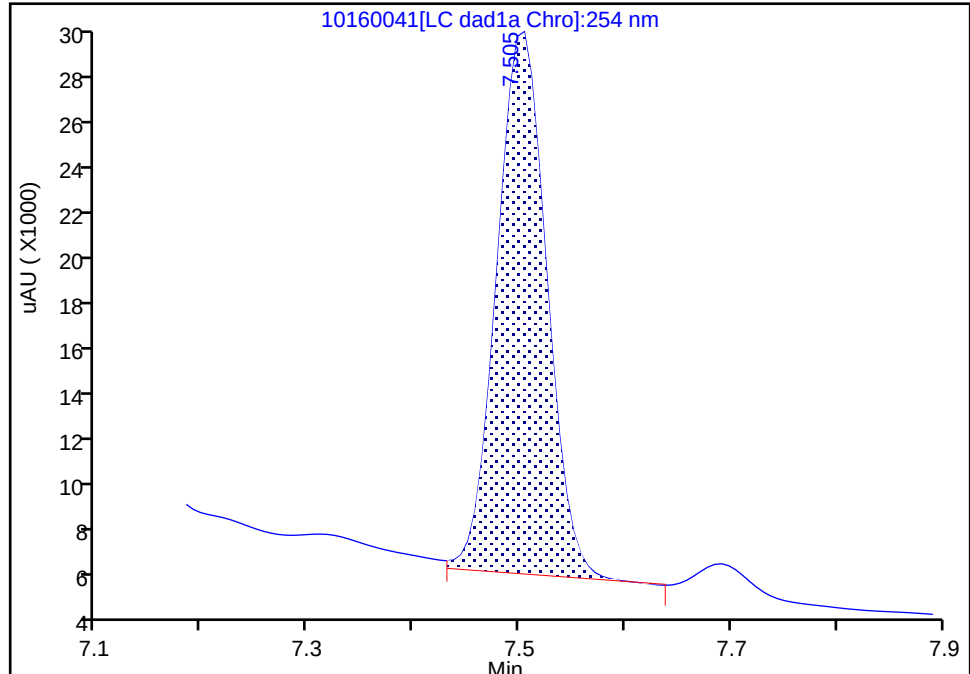
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160041.d
Injection Date: 17-Oct-2024 03:54:22 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

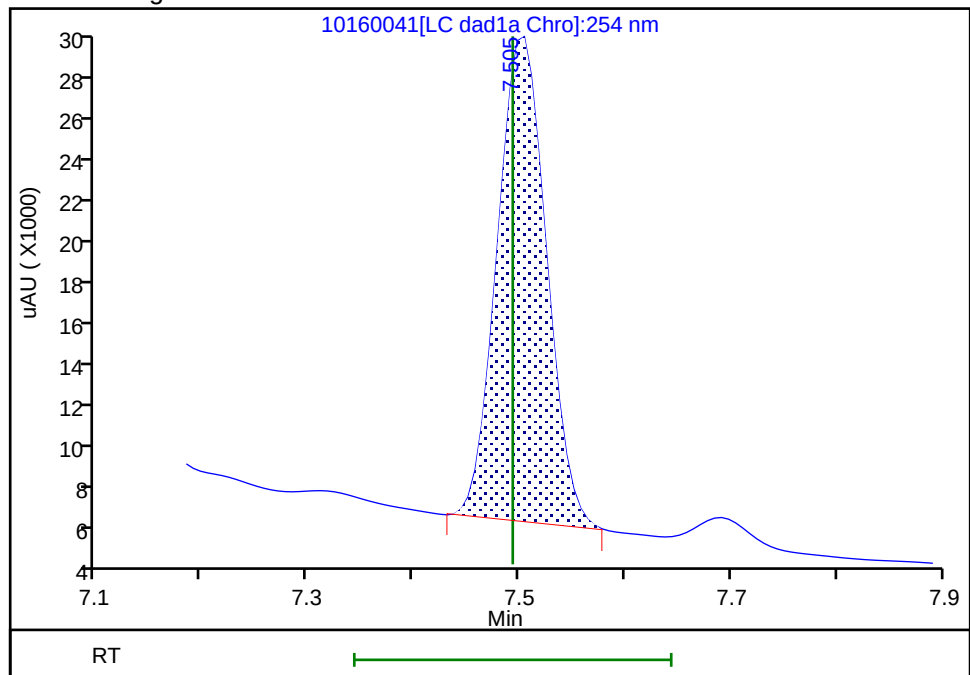
RT: 7.50
Area: 75622
Amount: 0.719707
Amount Units: ug/mL

Processing Integration Results



RT: 7.50
Area: 72921
Amount: 0.693942
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:48:47 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: WBGmw-006-240901-GW Lab Sample ID: 280-197842-2
Matrix: Water Lab File ID: 10170020.D
Analysis Method: 8330B Date Collected: 10/09/2024 09:29
Extraction Method: 3535 Date Extracted: 10/16/2024 10:50
Sample wt/vol: 476.9 (mL) Date Analyzed: 10/17/2024 23:29
Con. Extract Vol.: 5 (mL) Dilution Factor: 1
Injection Volume: 100 (uL) GC Column: Luna-phenylhex ID: 4.6 (mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 671457 Units: ug/L
Preparation Batch No.: 671072 Instrument ID: CHHPLC_X5

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.10	U	0.12	0.10	0.039

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D
Lims ID: 280-197842-A-2-A
Client ID: WBGmw-006-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 23:29:03 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-2-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:18:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.241	6.237	0.004	54736	0.3035	M
8 RDX	1	8.328	8.324	0.004	145200	0.6589	
9 Nitrobenzene	1		10.877			ND	
\$ 10 1,2-Dinitrobenzene	1	11.681	11.677	0.004	48134	0.1834	
12 1,3-Dinitrobenzene	1		13.691			ND	
13 Nitroglycerin	2		14.324			ND	
14 o-Nitrotoluene	1		14.871			ND	
16 p-Nitrotoluene	1	15.041	15.097	-0.056	3069	0.0145	M
17 4-Amino-2,6-dinitrotoluene	1		15.411			ND	U
18 m-Nitrotoluene	1		15.917			ND	
19 2-Amino-4,6-dinitrotoluene	1		16.137			ND	
20 1,3,5-Trinitrobenzene	1	16.414	16.384	0.030	3578	0.008443	M
21 2,6-Dinitrotoluene	1		17.504			ND	
22 2,4-Dinitrotoluene	1		17.931			ND	
23 Tetryl	1		20.891			ND	
24 2,4,6-Trinitrotoluene	1		21.777			ND	
25 PETN	2		23.231			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 18-Oct-2024 12:32:02

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D

Injection Date: 17-Oct-2024 23:29:03

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: 280-197842-A-2-A

Lab Sample ID: 280-197842-2

Worklist Smp#: 20

Client ID: WBGmw-006-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

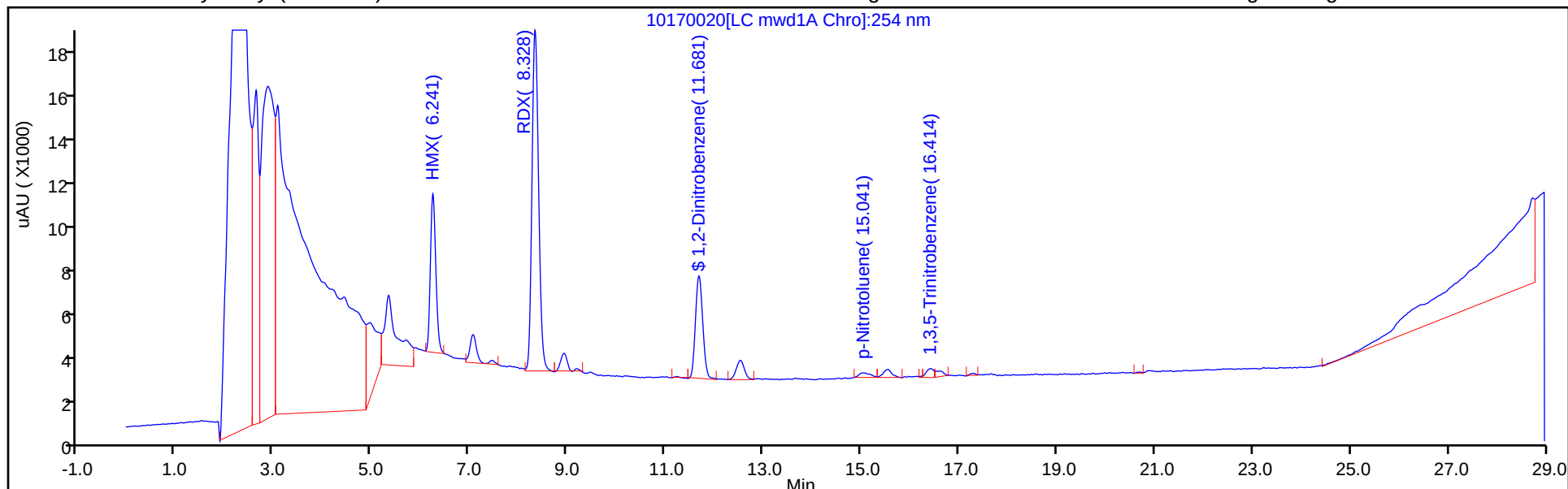
ALS Bottle#: 20

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

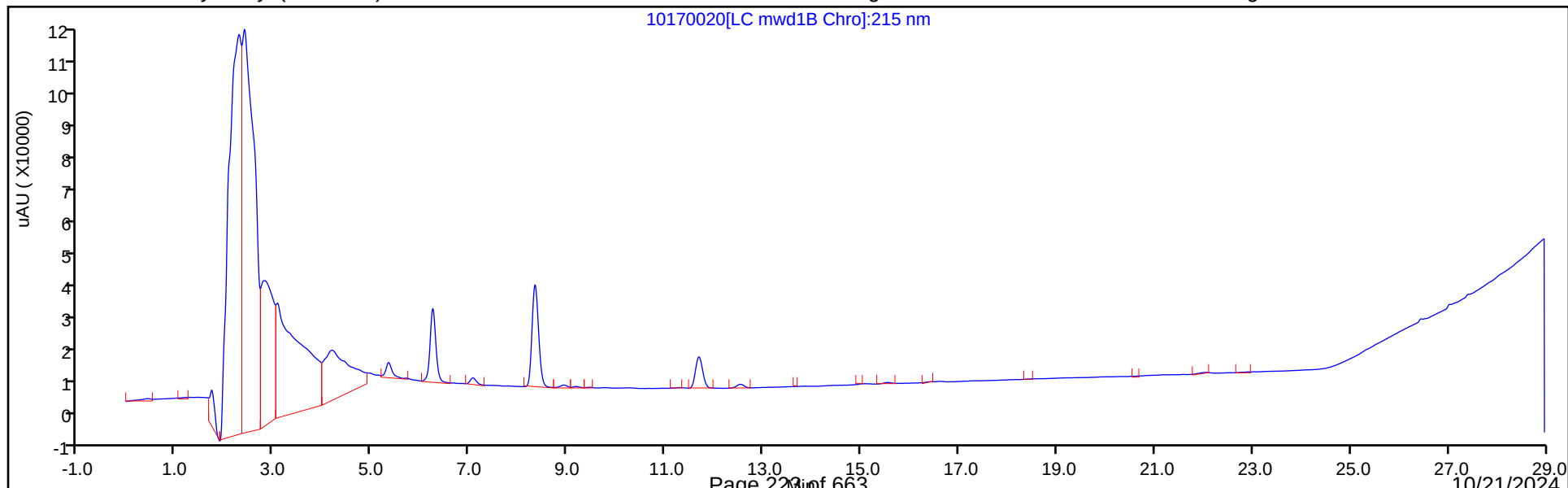
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D
Lims ID: 280-197842-A-2-A
Client ID: WBGmw-006-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 23:29:03 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-2-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:18:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1834	91.69

Eurofins Denver

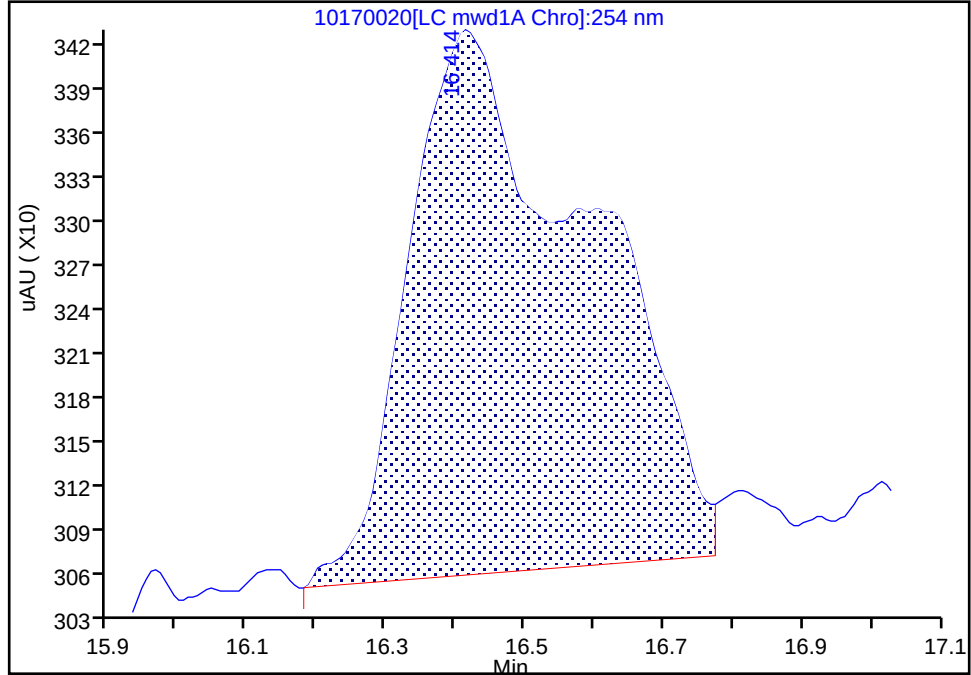
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D
Injection Date: 17-Oct-2024 23:29:03 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

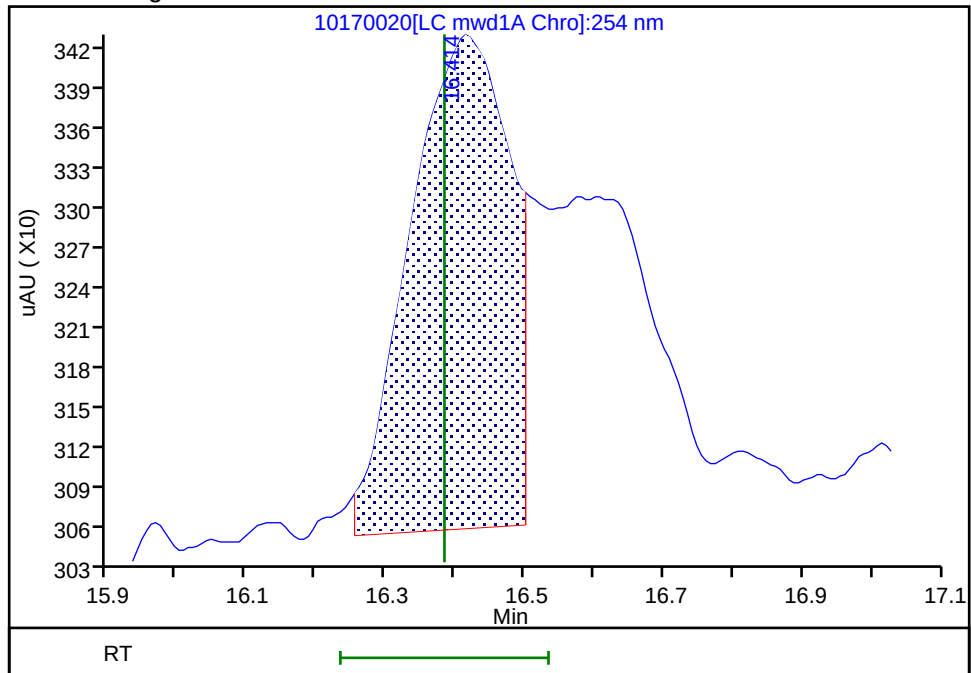
RT: 16.41
Area: 6483
Amount: 0.015298
Amount Units: ug/ml

Processing Integration Results



RT: 16.41
Area: 3578
Amount: 0.008443
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:17:51 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D

Injection Date: 17-Oct-2024 23:29:03

Instrument ID: CHHPLC_X5

Lims ID: 280-197842-A-2-A

Lab Sample ID: 280-197842-2

Client ID: WBGmw-006-240901-GW

Operator ID: JZ

ALS Bottle#: 20 Worklist Smp#: 20

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

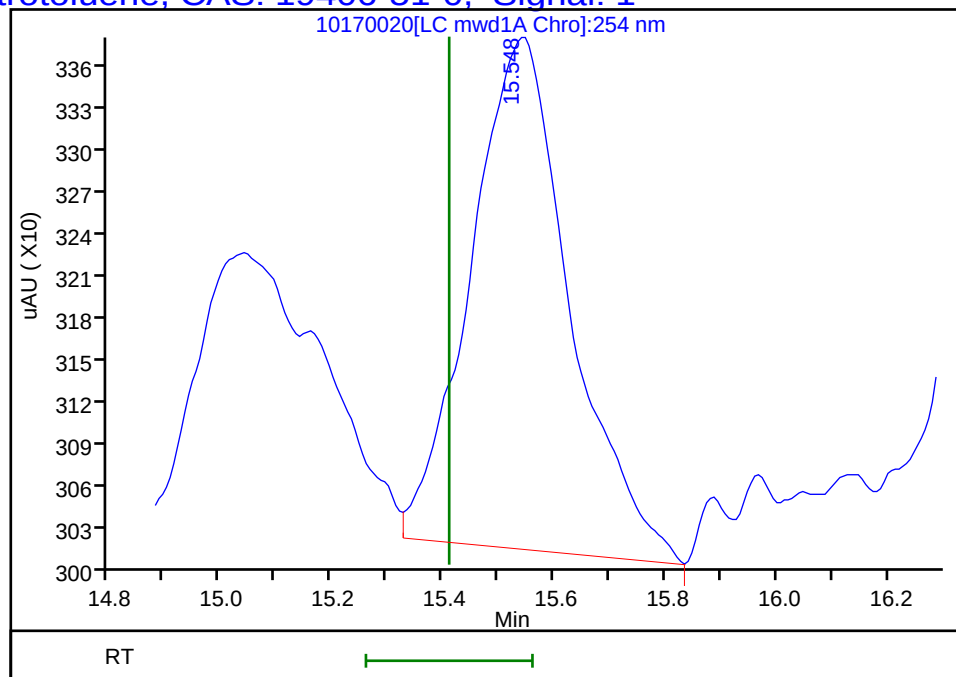
Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 15.55

Response: 4552

Amount: 0.016340



Reviewer: LV5D, 18-Oct-2024 12:18:10

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

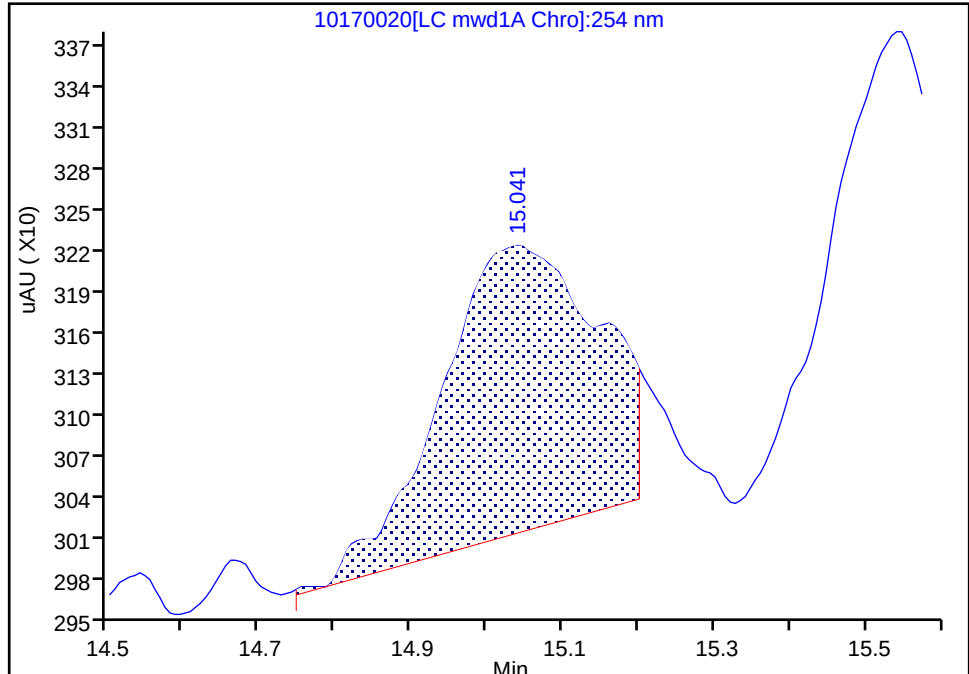
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D
Injection Date: 17-Oct-2024 23:29:03 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

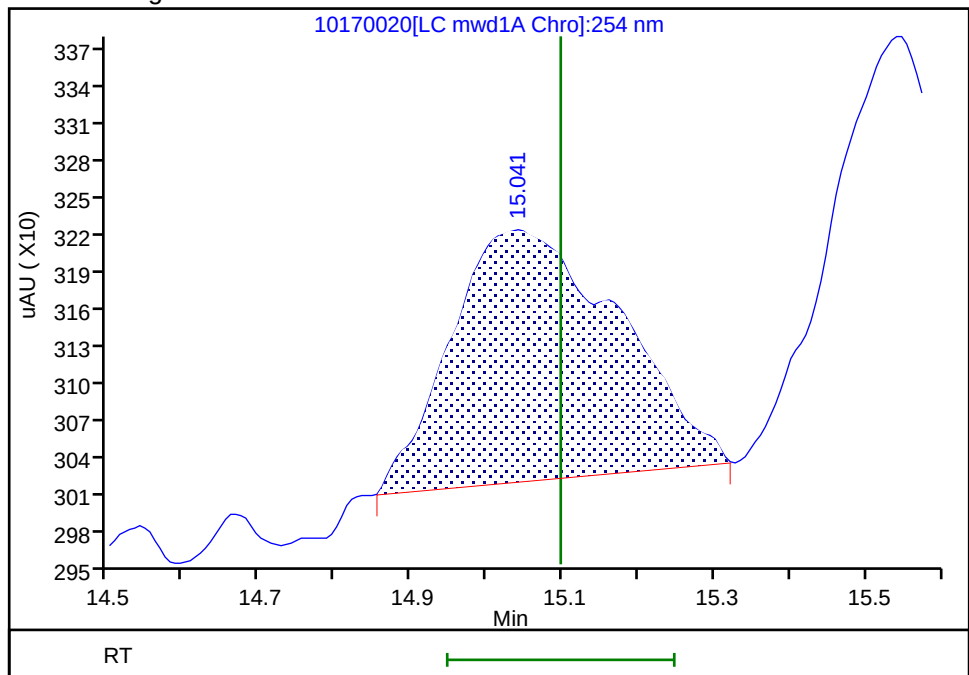
RT: 15.04
Area: 2971
Amount: 0.014036
Amount Units: ug/ml

Processing Integration Results



RT: 15.04
Area: 3069
Amount: 0.014499
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:17:57 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

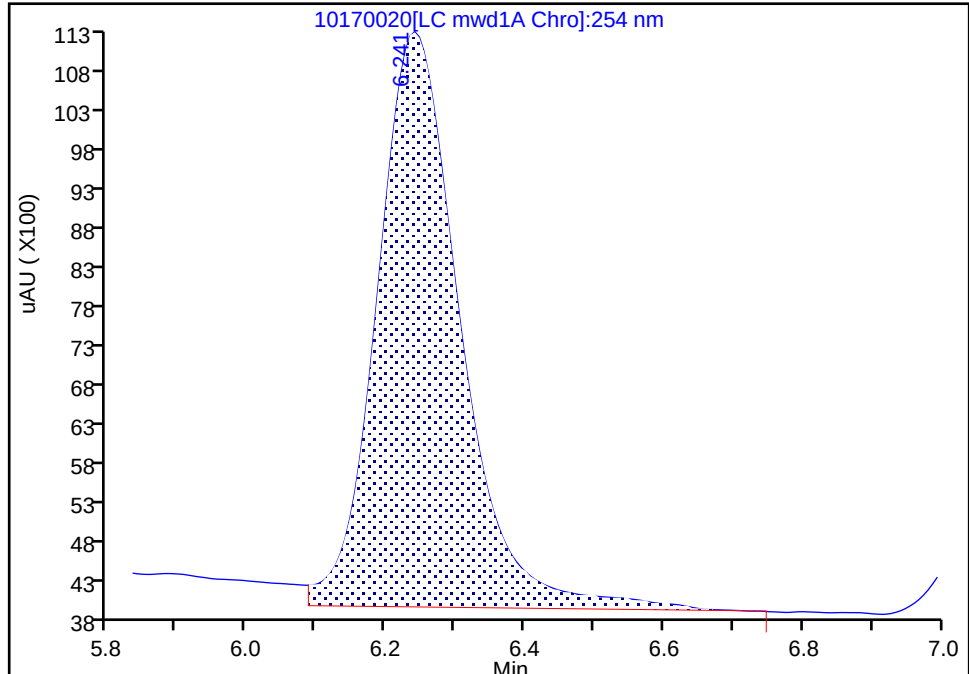
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170020.D
Injection Date: 17-Oct-2024 23:29:03 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-2-A Lab Sample ID: 280-197842-2
Client ID: WBGmw-006-240901-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

5 HMX, CAS: 2691-41-0

Signal: 1

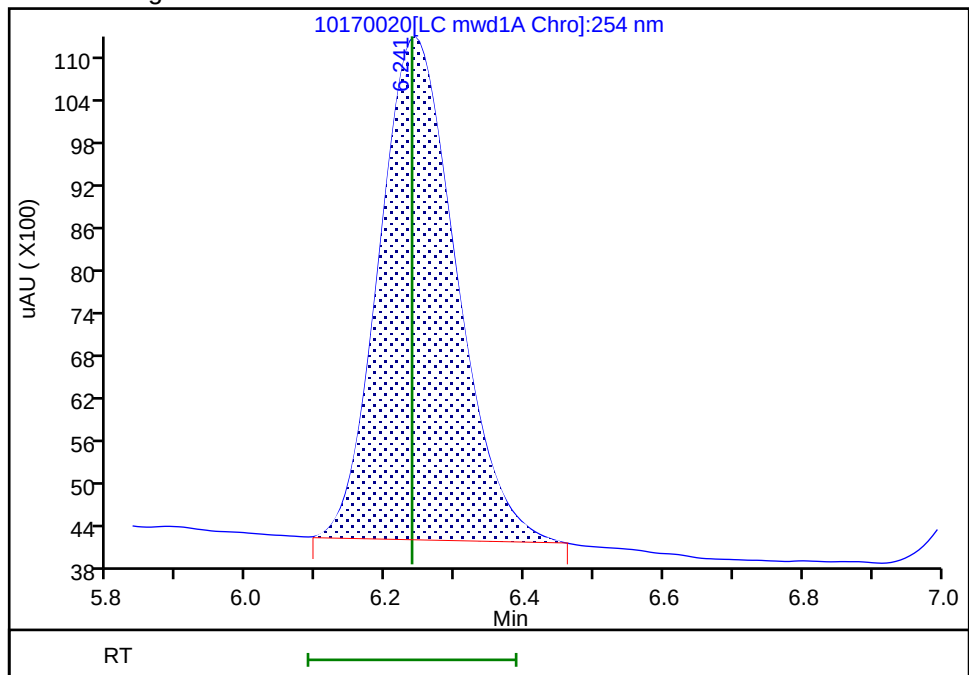
RT: 6.24
Area: 61361
Amount: 0.340255
Amount Units: ug/ml

Processing Integration Results



RT: 6.24
Area: 54736
Amount: 0.303519
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:18:07 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>FBQmw-175-240901-GW</u>	Lab Sample ID: <u>280-197842-3</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160042.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 10:30</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>365.6(mL)</u>	Date Analyzed: <u>10/17/2024 04:16</u>
Con. Extract Vol.: <u>5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100(uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.27	U M	0.29	0.27	0.12
99-65-0	1,3-Dinitrobenzene	0.14	U M	0.15	0.14	0.050
118-96-7	2,4,6-Trinitrotoluene	0.14	U	0.15	0.14	0.062
121-14-2	2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.037
606-20-2	2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.055
35572-78-2	2-Amino-4,6-dinitrotoluene	0.14	U M	0.15	0.14	0.069
88-72-2	2-Nitrotoluene	0.27	U	0.29	0.27	0.12
99-08-1	3-Nitrotoluene	0.48	U	0.55	0.48	0.27
19406-51-0	4-Amino-2,6-dinitrotoluene	0.16	U	0.21	0.16	0.079
99-99-0	4-Nitrotoluene	0.55	U	0.56	0.55	0.14
2691-41-0	HMX	0.27	U M	0.29	0.27	0.12
98-95-3	Nitrobenzene	0.27	U	0.29	0.27	0.12
55-63-0	Nitroglycerin	2.7	U	2.9	2.7	1.3
78-11-5	PETN	1.4	U	1.5	1.4	0.61
121-82-4	RDX	0.27	U	0.29	0.27	0.070
479-45-8	Tetryl	0.12	J	0.15	0.14	0.043

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160042.D
 Lims ID: 280-197842-A-3-A
 Client ID: FBQmw-175-240901-GW
 Sample Type: Client
 Inject. Date: 17-Oct-2024 04:16:17 ALS Bottle#: 42 Worklist Smp#: 42
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-197842-A-3-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:49:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.567			ND	U
8 RDX	1		7.494			ND	
\$ 10 1,2-Dinitrobenzene	1	8.358	8.360	-0.002	24225	0.1858	
11 1,3,5-Trinitrobenzene	1		8.467			ND	U
12 1,3-Dinitrobenzene	1		9.020			ND	U
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1	9.671	9.660	0.011	1444	0.009115	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	U
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	7
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:43

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160042.d

Injection Date: 17-Oct-2024 04:16:17

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-3-A

Lab Sample ID: 280-197842-3

Worklist Smp#: 42

Client ID: FBQmw-175-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

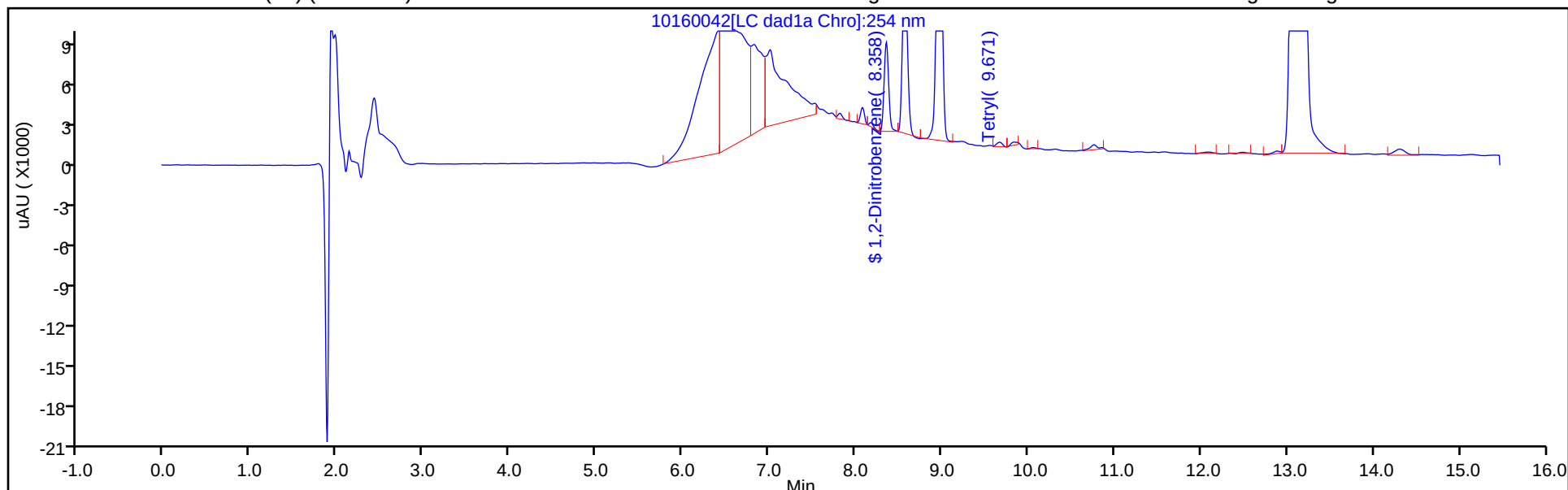
ALS Bottle#: 42

Method: 8330_X3

Limit Group: GCSV - 8330

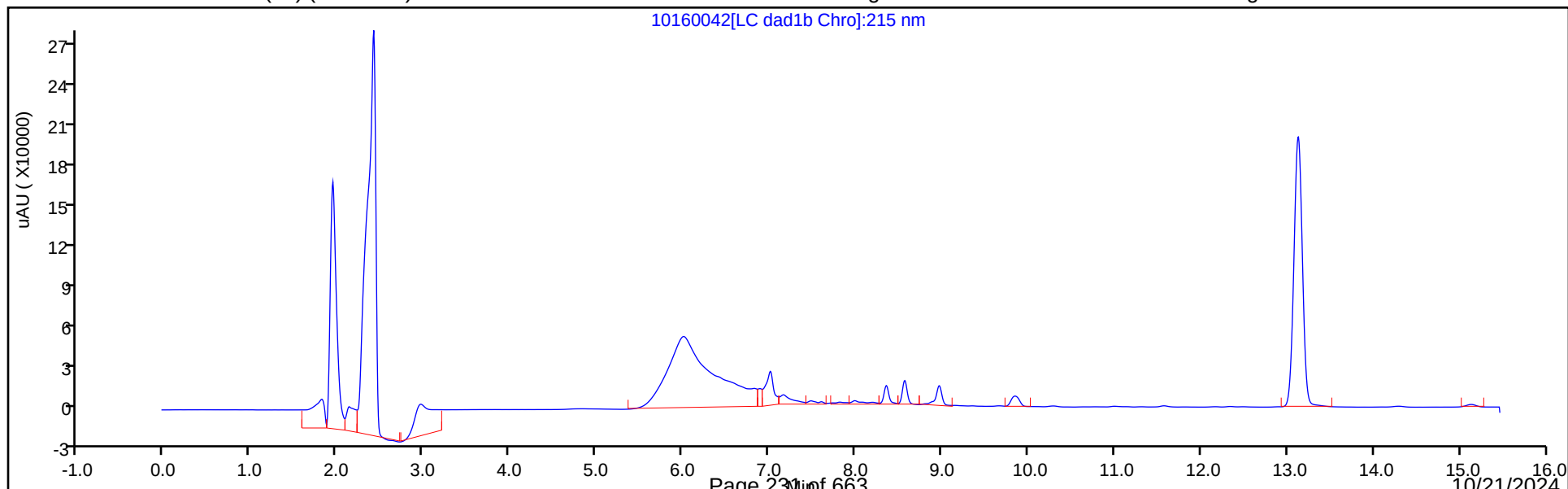
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160042.D
Lims ID: 280-197842-A-3-A
Client ID: FBQmw-175-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 04:16:17 ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-3-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:49:43

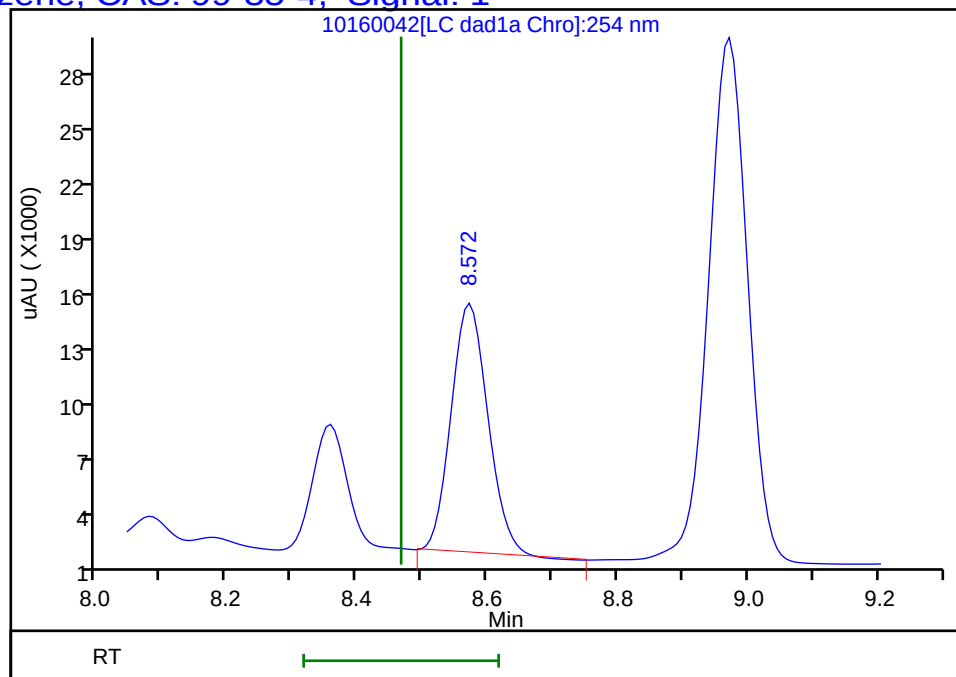
Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1858	92.88

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160042.d
Injection Date: 17-Oct-2024 04:16:17 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 42 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

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.57
Response: 51869
Amount: 0.238643



Reviewer: LV5D, 17-Oct-2024 11:49:43

Audit Action: Marked Compound Undetected

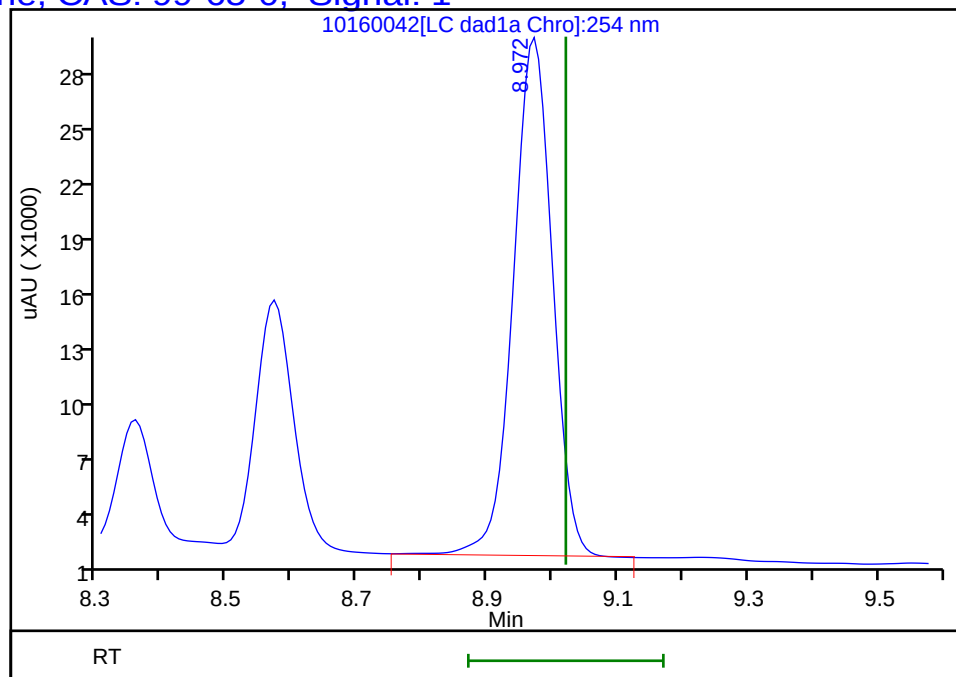
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160042.d
Injection Date: 17-Oct-2024 04:16:17 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 42 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

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 8.97
Response: 114751
Amount: 0.384771



Reviewer: LV5D, 17-Oct-2024 11:49:43

Audit Action: Marked Compound Undetected

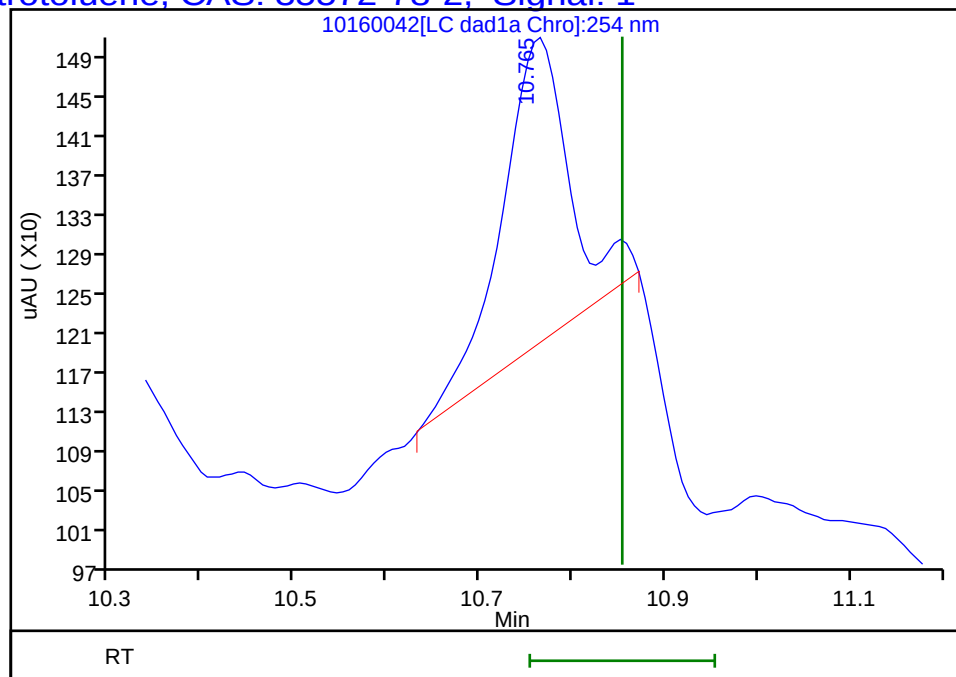
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160042.d
Injection Date: 17-Oct-2024 04:16:17 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 42 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

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 10.76
Response: 1577
Amount: 0.007710



Reviewer: LV5D, 17-Oct-2024 11:49:43

Audit Action: Marked Compound Undetected

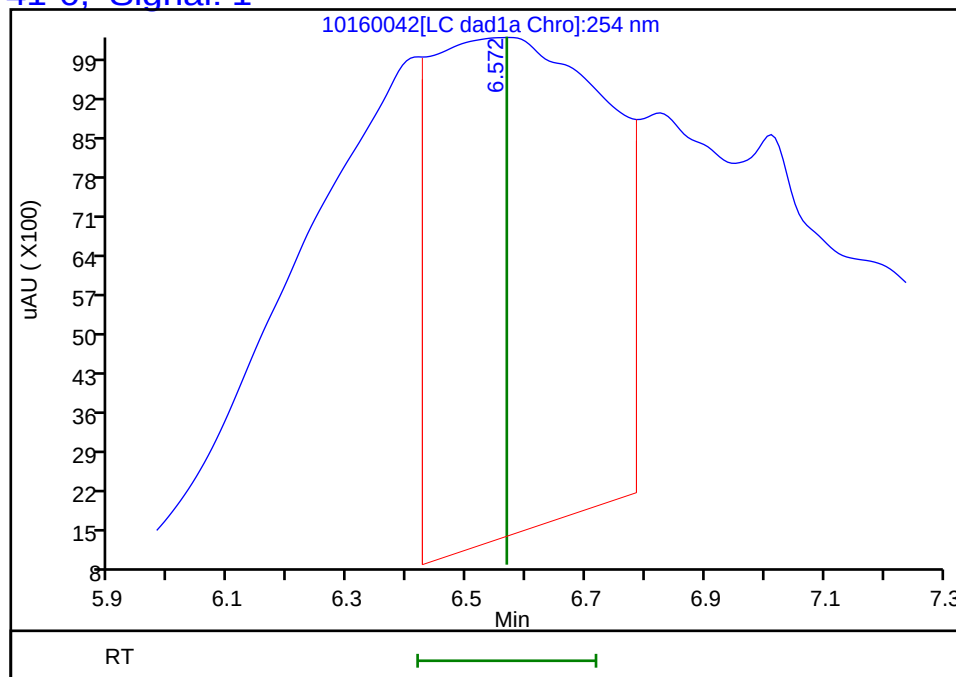
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160042.d
Injection Date: 17-Oct-2024 04:16:17 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 42 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

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.57
Response: 178141
Amount: 1.843100



Reviewer: LV5D, 17-Oct-2024 11:49:43

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: FBQmw-175-240901-GW Lab Sample ID: 280-197842-3
Matrix: Water Lab File ID: 10170021.D
Analysis Method: 8330B Date Collected: 10/09/2024 10:30
Extraction Method: 3535 Date Extracted: 10/16/2024 10:50
Sample wt/vol: 365.6(mL) Date Analyzed: 10/18/2024 00:04
Con. Extract Vol.: 5(mL) Dilution Factor: 1
Injection Volume: 100(uL) GC Column: Luna-phenylhex ID: 4.6(mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 671457 Units: ug/L
Preparation Batch No.: 671072 Instrument ID: CHHPLC_X5

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
 Lims ID: 280-197842-A-3-A
 Client ID: FBQmw-175-240901-GW
 Sample Type: Client
 Inject. Date: 18-Oct-2024 00:04:00 ALS Bottle#: 21 Worklist Smp#: 21
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-197842-A-3-A
 Operator ID: JZ Instrument ID: CHHPLC_X5
 Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
 Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:18:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1		6.237			ND	
8 RDX	1		8.324			ND	
9 Nitrobenzene	1		10.877			ND	U
\$ 10 1,2-Dinitrobenzene	1	11.680	11.677	0.003	53825	0.2051	
12 1,3-Dinitrobenzene	1		13.691			ND	7
13 Nitroglycerin	2		14.324			ND	U
14 o-Nitrotoluene	1		14.871			ND	
16 p-Nitrotoluene	1		15.097			ND	U
17 4-Amino-2,6-dinitrotoluene	1		15.411			ND	U
18 m-Nitrotoluene	1		15.917			ND	
19 2-Amino-4,6-dinitrotoluene	1	16.073	16.137	-0.064	2866	0.007360	
20 1,3,5-Trinitrobenzene	1	16.400	16.384	0.016	4567	0.0108	M
21 2,6-Dinitrotoluene	1		17.504			ND	
22 2,4-Dinitrotoluene	1		17.931			ND	
23 Tetryl	1	20.947	20.891	0.056	2680	0.009459	M
24 2,4,6-Trinitrotoluene	1		21.777			ND	U
25 PETN	2		23.231			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 18-Oct-2024 12:32:02

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D

Injection Date: 18-Oct-2024 00:04:00

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: 280-197842-A-3-A

Lab Sample ID: 280-197842-3

Worklist Smp#: 21

Client ID: FBQmw-175-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

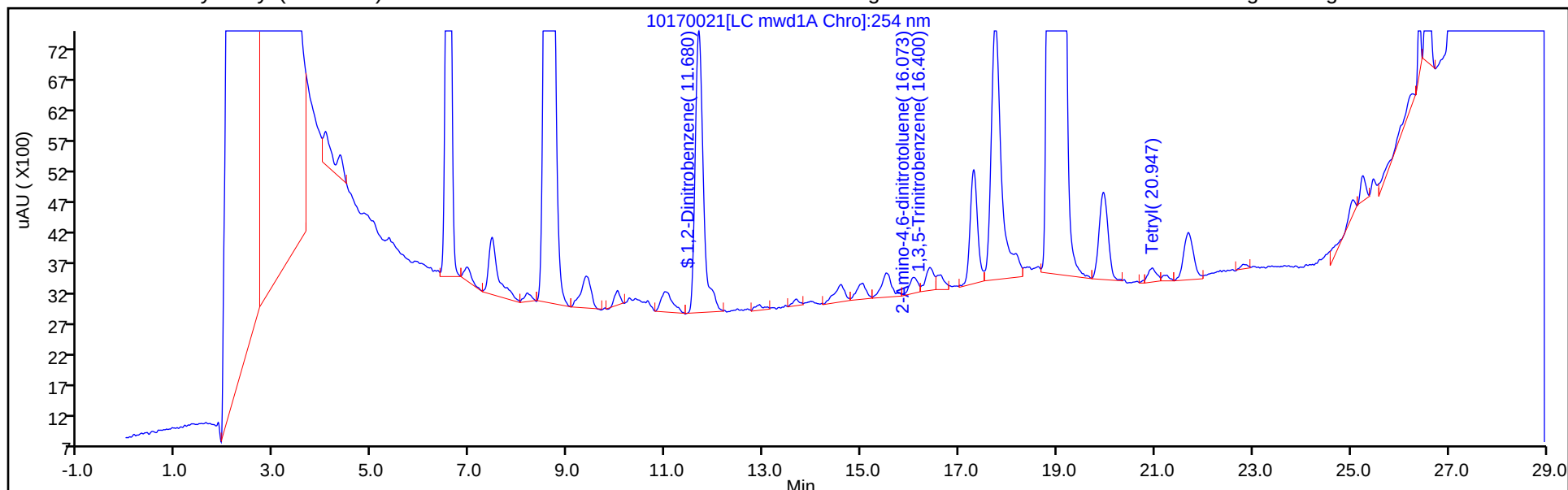
ALS Bottle#: 21

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

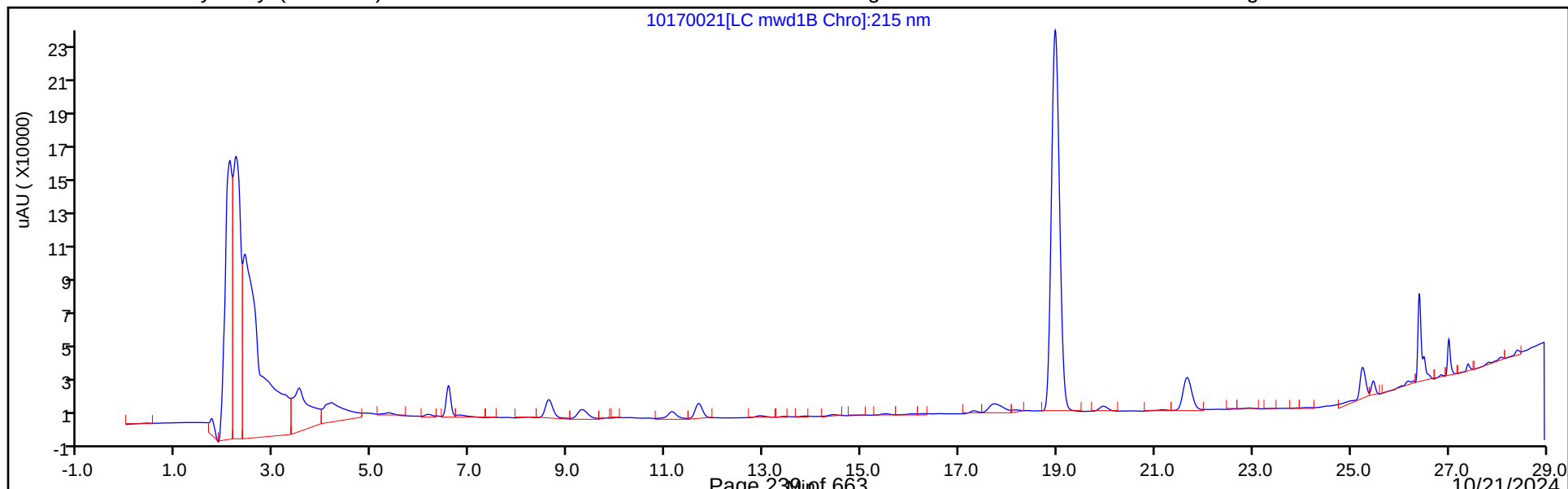
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
Lims ID: 280-197842-A-3-A
Client ID: FBQmw-175-240901-GW
Sample Type: Client
Inject. Date: 18-Oct-2024 00:04:00 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-3-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:18:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2051	102.53

Eurofins Denver

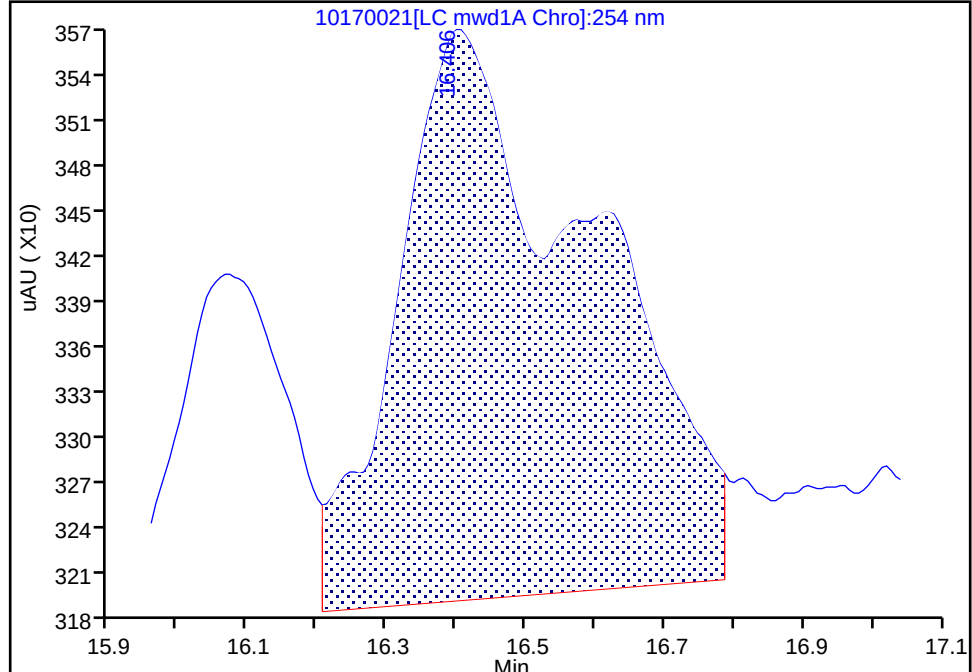
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
Injection Date: 18-Oct-2024 00:04:00 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

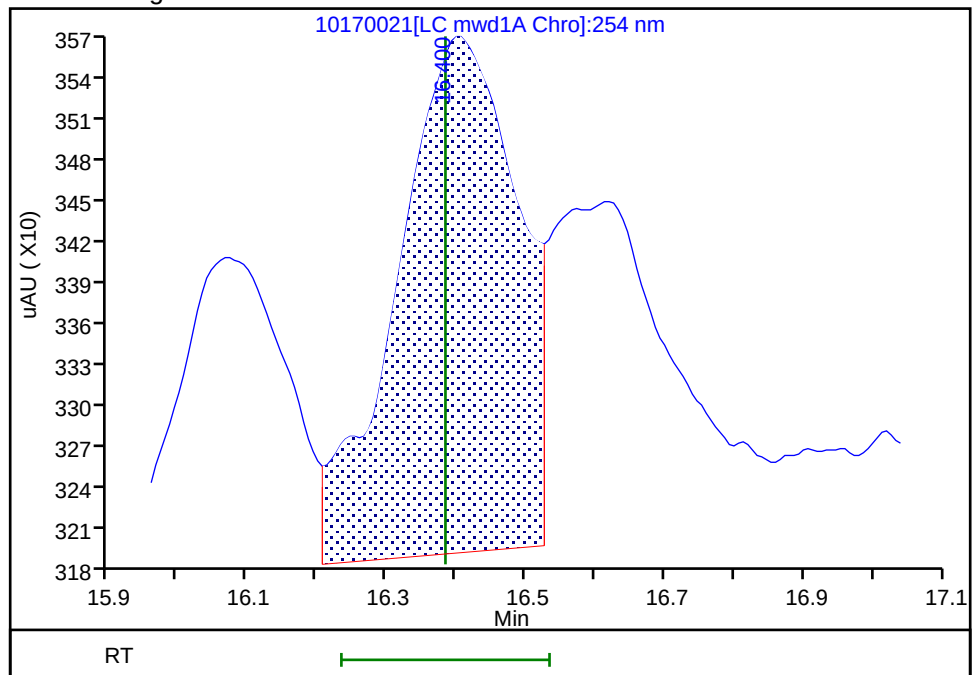
RT: 16.41
Area: 7410
Amount: 0.017485
Amount Units: ug/ml

Processing Integration Results



RT: 16.40
Area: 4567
Amount: 0.010776
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:18:44 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

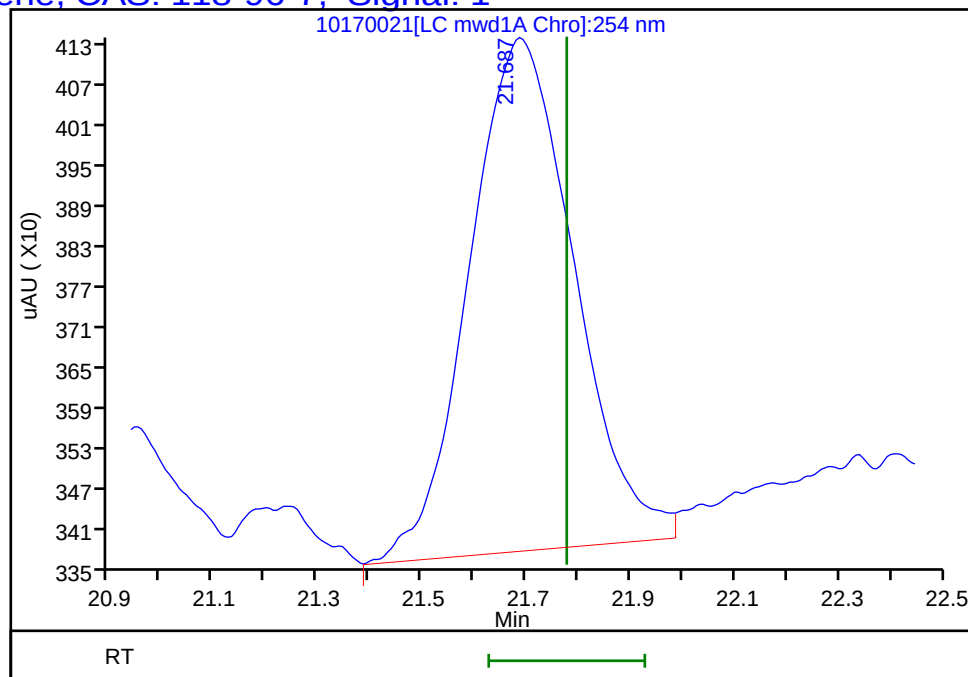
Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
Injection Date: 18-Oct-2024 00:04:00 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 21.69
Response: 10675
Amount: 0.025647



Reviewer: LV5D, 18-Oct-2024 12:18:47

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D

Injection Date: 18-Oct-2024 00:04:00

Instrument ID: CHHPLC_X5

Lims ID: 280-197842-A-3-A

Lab Sample ID: 280-197842-3

Client ID: FBQmw-175-240901-GW

Operator ID: JZ

ALS Bottle#: 21

Worklist Smp#: 21

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

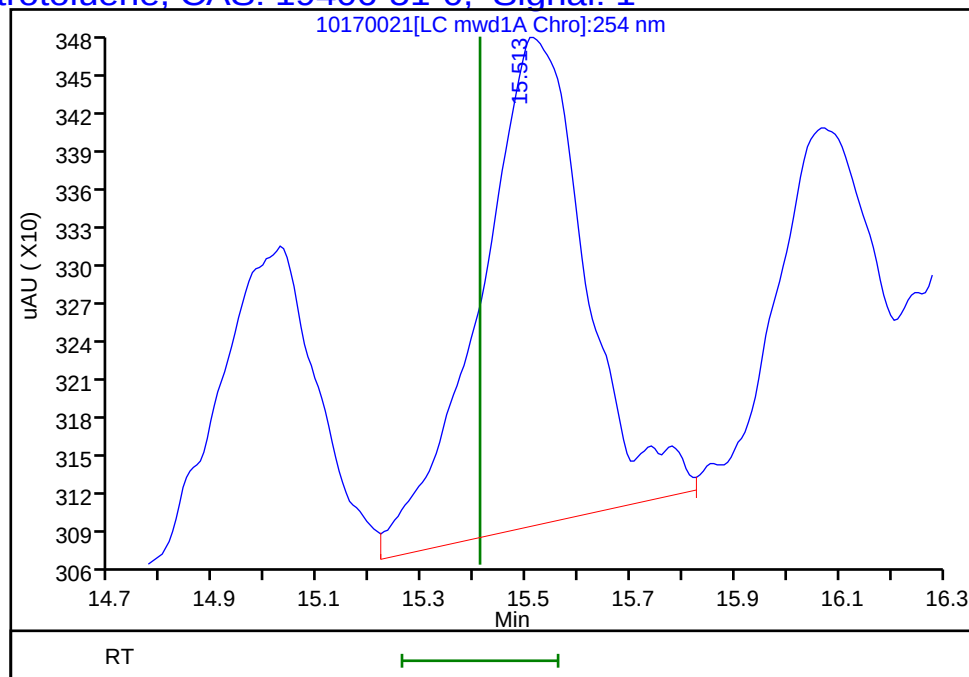
Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 15.51

Response: 5503

Amount: 0.019753



Reviewer: LV5D, 18-Oct-2024 12:18:47

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D

Injection Date: 18-Oct-2024 00:04:00

Instrument ID: CHHPLC_X5

Lims ID: 280-197842-A-3-A

Lab Sample ID: 280-197842-3

Client ID: FBQmw-175-240901-GW

Operator ID: JZ

ALS Bottle#: 21 Worklist Smp#: 21

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

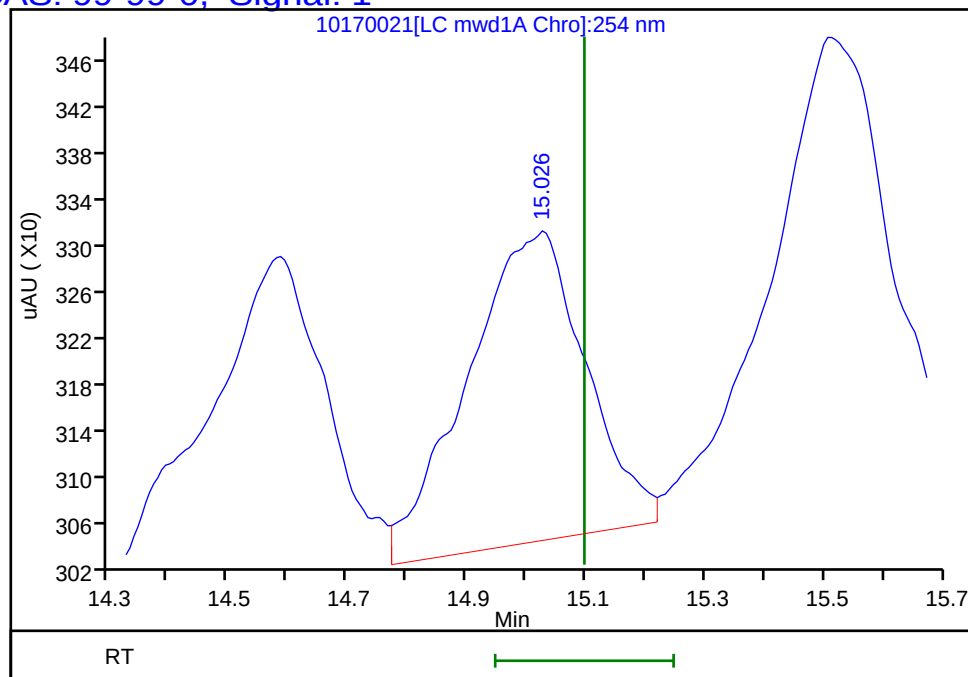
Detector LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 15.03

Response: 3694

Amount: 0.017452



Reviewer: LV5D, 18-Oct-2024 12:18:47

Audit Action: Marked Compound Undetected

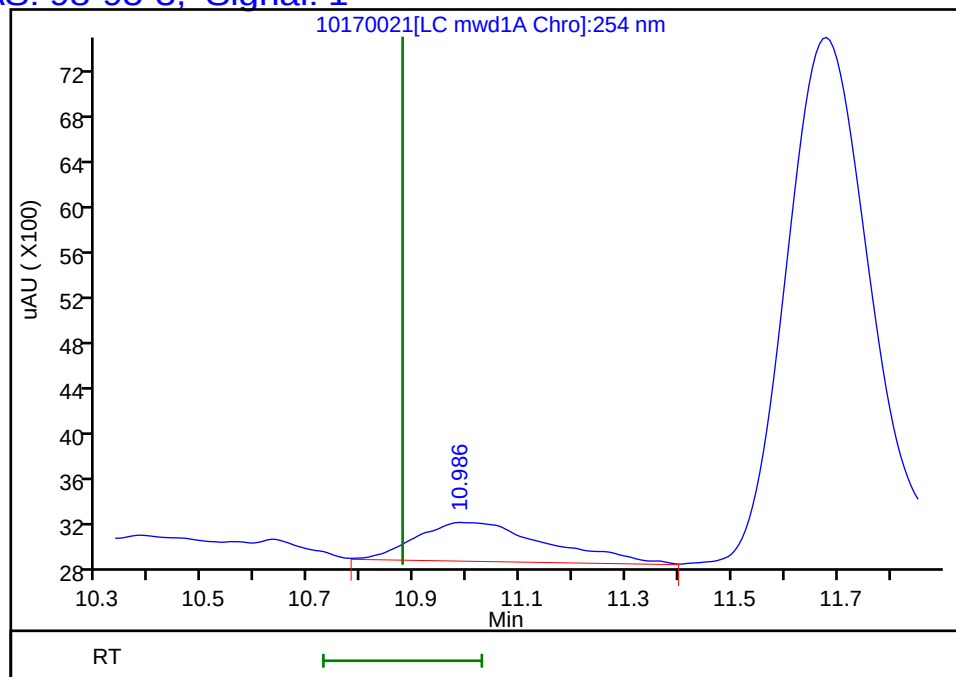
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
Injection Date: 18-Oct-2024 00:04:00 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 10.99
Response: 5665
Amount: 0.015029



Reviewer: LV5D, 18-Oct-2024 12:18:47

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

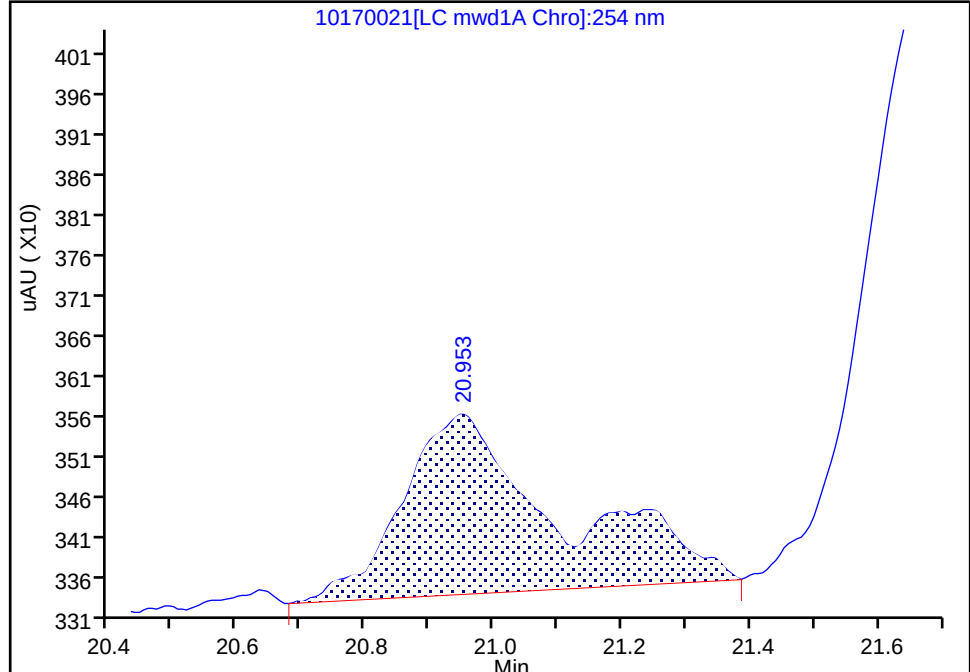
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170021.D
Injection Date: 18-Oct-2024 00:04:00 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-3-A Lab Sample ID: 280-197842-3
Client ID: FBQmw-175-240901-GW
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

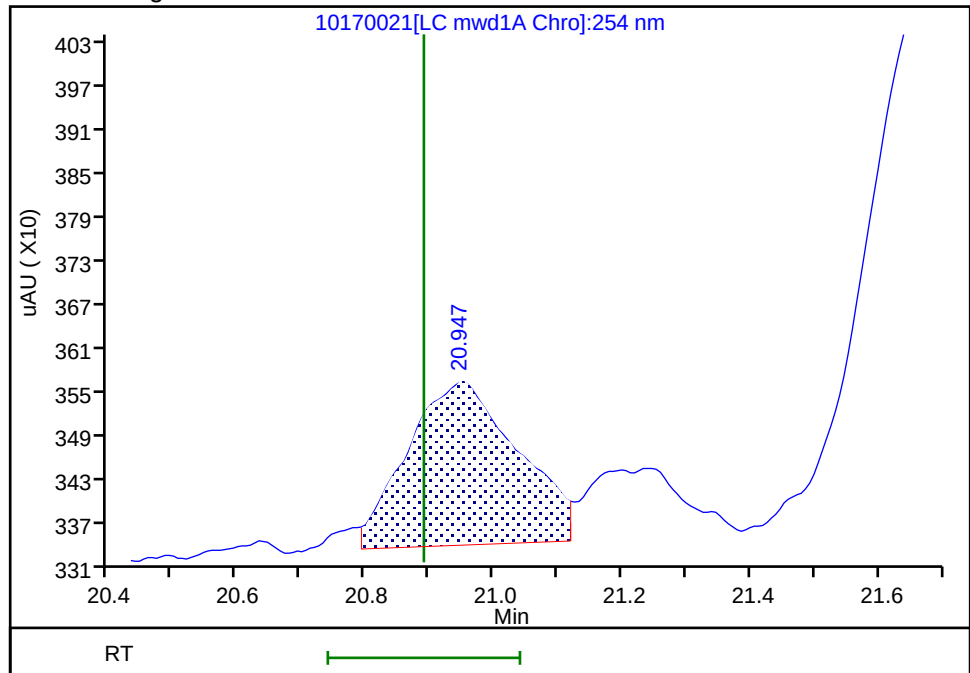
RT: 20.95
Area: 3725
Amount: 0.013147
Amount Units: ug/ml

Processing Integration Results



RT: 20.95
Area: 2680
Amount: 0.009459
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:18:41 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-020-240901-GW</u>	Lab Sample ID: <u>280-197842-4</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160043.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 10:43</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>458.6(mL)</u>	Date Analyzed: <u>10/17/2024 04:38</u>
Con. Extract Vol.: <u>5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100(uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092
99-65-0	1,3-Dinitrobenzene	0.11	U M	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	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	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	0.38	U	0.44	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.44	U	0.45	0.44	0.11
2691-41-0	HMX	0.22	U M	0.23	0.22	0.096
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.099
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.49
121-82-4	RDX	0.22	U M	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160043.D
Lims ID: 280-197842-A-4-A
Client ID: WBGmw-020-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 04:38:11 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:49:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.579	6.567	0.012	183	0.001893	7M
8 RDX	1		7.494			ND	U
\$ 10 1,2-Dinitrobenzene	1	8.359	8.360	-0.001	26963	0.2068	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	U
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:44

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160043.d

Injection Date: 17-Oct-2024 04:38:11

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-4-A

Lab Sample ID: 280-197842-4

Worklist Smp#: 43

Client ID: WBGmw-020-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

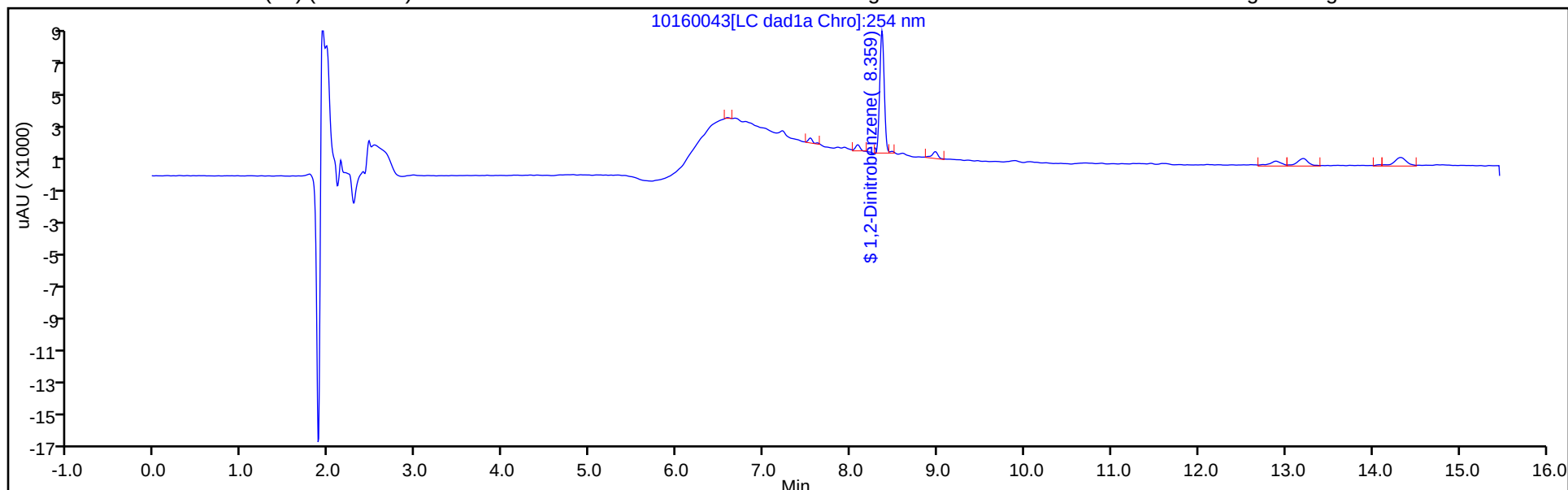
ALS Bottle#: 43

Method: 8330_X3

Limit Group: GCSV - 8330

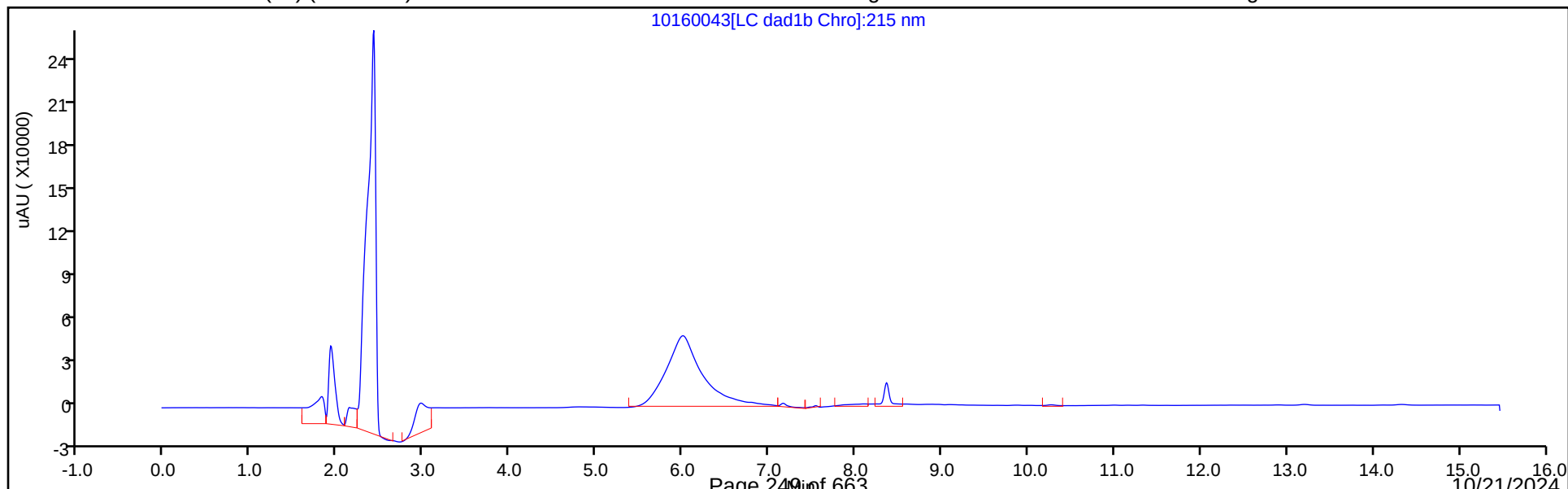
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160043.D
Lims ID: 280-197842-A-4-A
Client ID: WBGmw-020-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 04:38:11 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-Oct-2024 11:49:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2068	103.38

Eurofins Denver

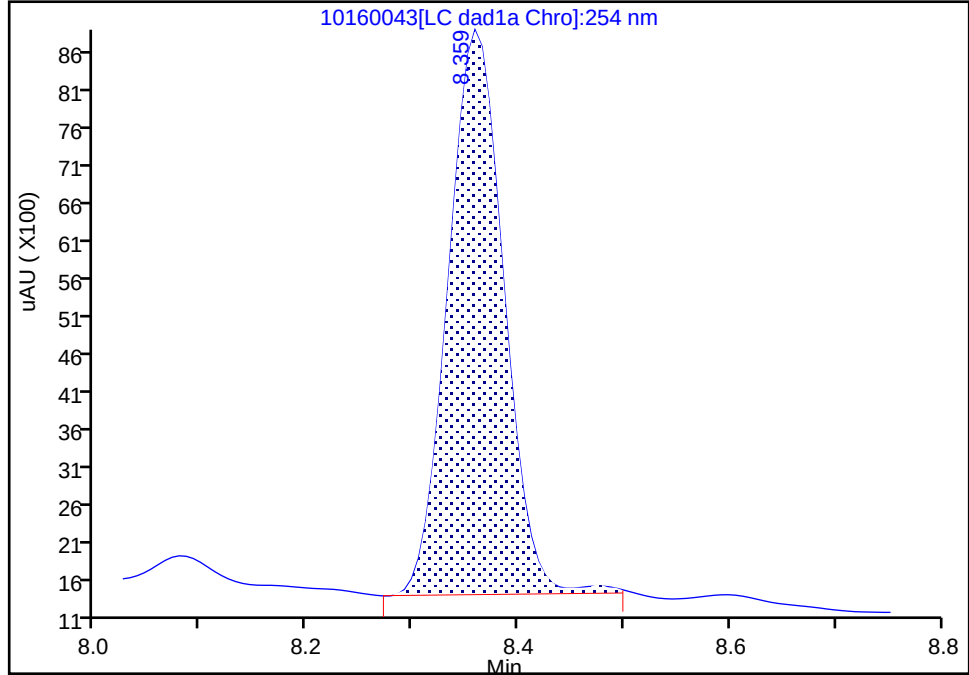
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160043.d
Injection Date: 17-Oct-2024 04:38:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-4-A Lab Sample ID: 280-197842-4
Client ID: WBGmw-020-240901-GW
Operator ID: JZ ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

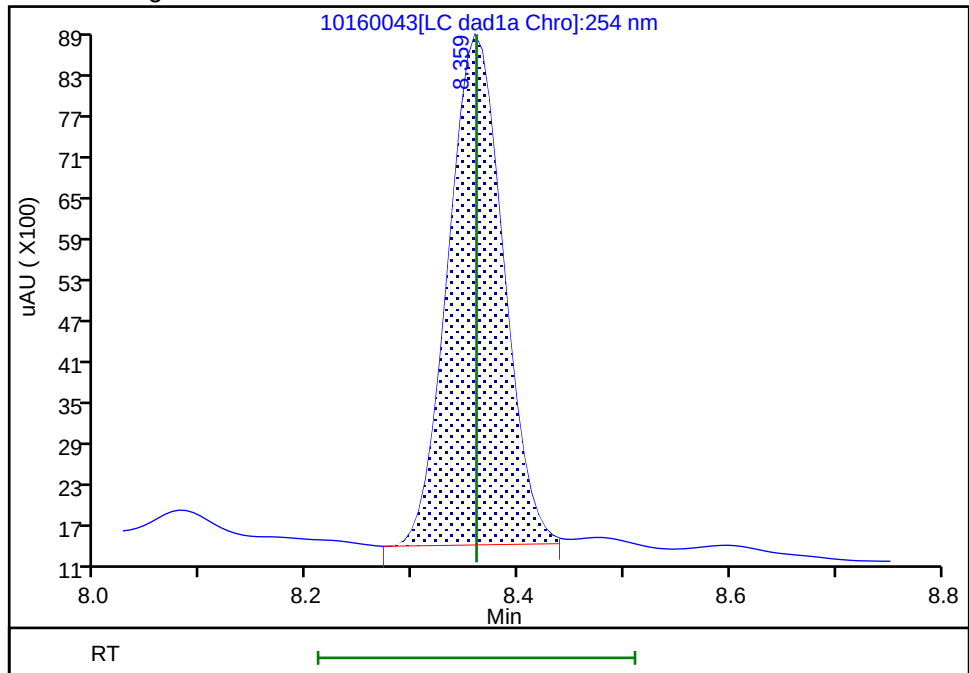
RT: 8.36
Area: 27246
Amount: 0.208926
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 26963
Amount: 0.206756
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:49:53 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

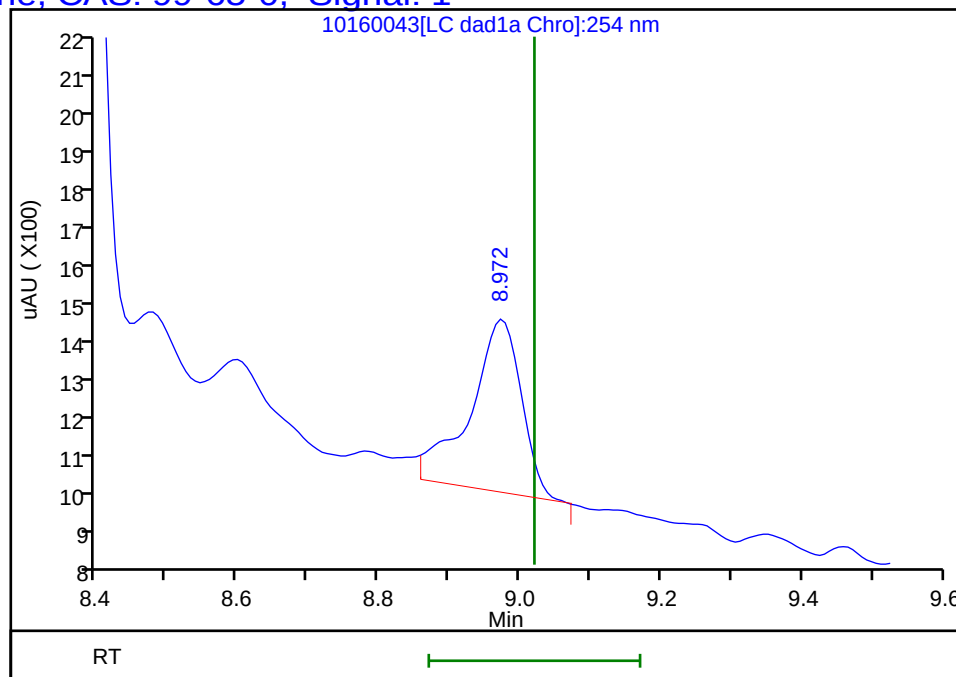
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160043.d
Injection Date: 17-Oct-2024 04:38:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-4-A Lab Sample ID: 280-197842-4
Client ID: WBGmw-020-240901-GW
Operator ID: JZ
Injection Vol: 100.0 ul
Method: 8330_X3

ALS Bottle#: 43 Worklist Smp#: 43
Dil. Factor: 1.0000
Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 8.97
Response: 2106
Amount: 0.007062



Reviewer: LV5D, 17-Oct-2024 11:49:59

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

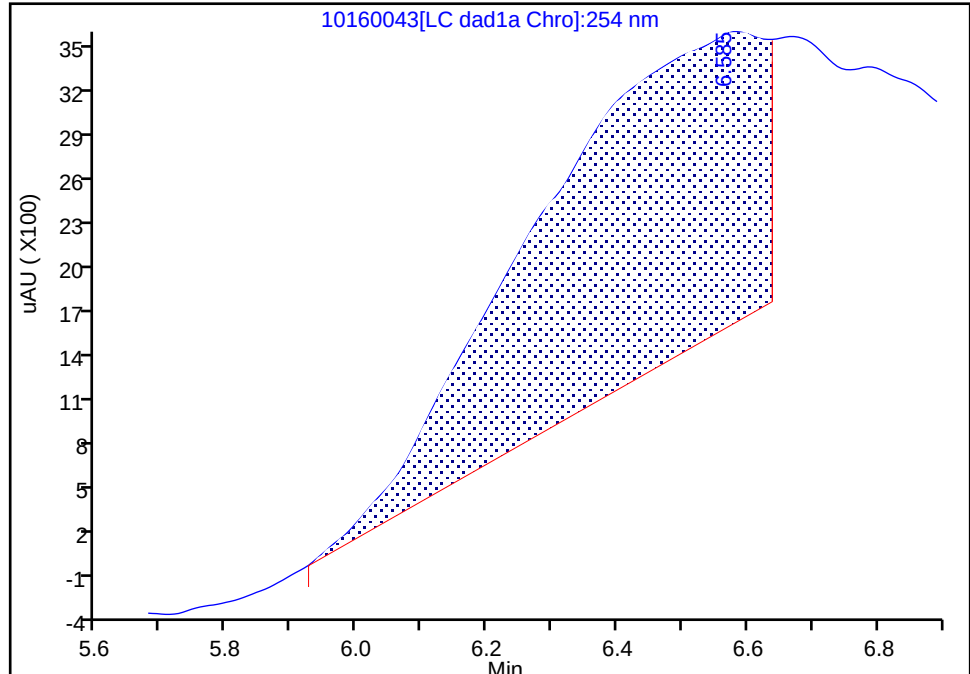
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160043.d
Injection Date: 17-Oct-2024 04:38:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-4-A Lab Sample ID: 280-197842-4
Client ID: WBGmw-020-240901-GW
Operator ID: JZ ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

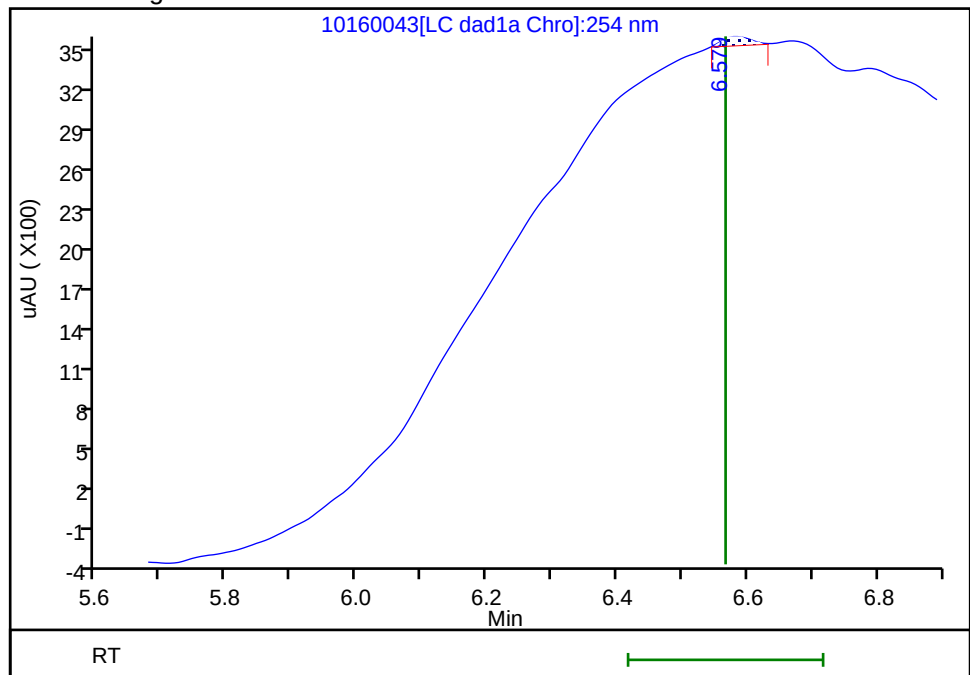
RT: 6.59
Area: 51832
Amount: 0.536269
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 183
Amount: 0.001893
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:49:57 -06:00:00 (UTC)

Audit Action: Manually Integrated

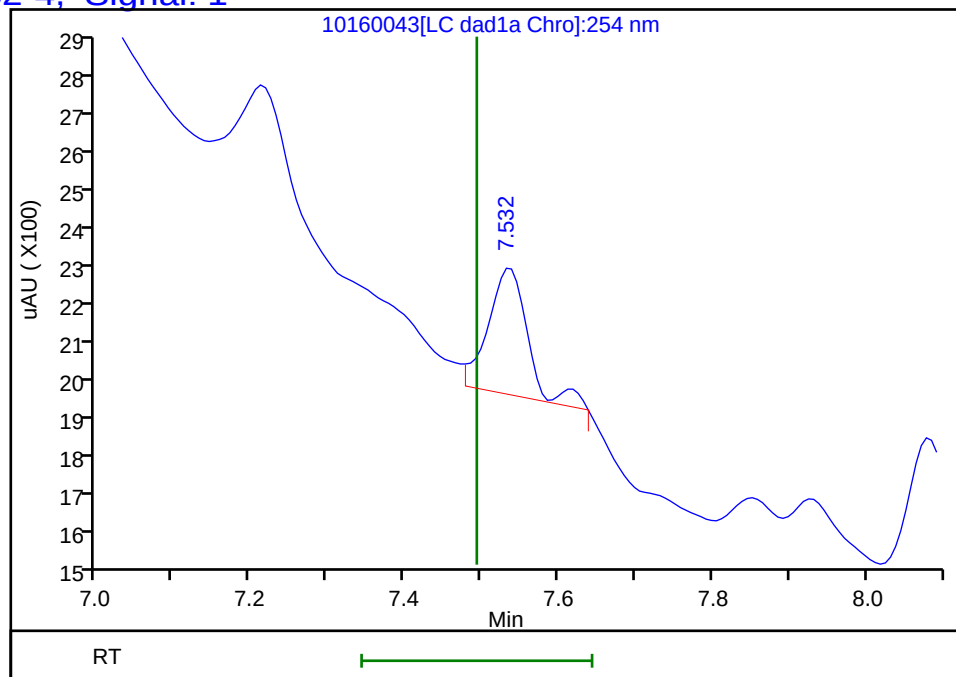
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160043.d
Injection Date: 17-Oct-2024 04:38:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-4-A Lab Sample ID: 280-197842-4
Client ID: WBGmw-020-240901-GW
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

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.53
Response: 1108
Amount: 0.008914



Reviewer: LV5D, 17-Oct-2024 11:49:59

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-016-240901-GW</u>	Lab Sample ID: <u>280-197842-5</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160044.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 10:52</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>452 (mL)</u>	Date Analyzed: <u>10/17/2024 05:00</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030
606-20-2	2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.095
99-08-1	3-Nitrotoluene	0.39	U	0.44	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.064
99-99-0	4-Nitrotoluene	0.44	U	0.45	0.44	0.11
2691-41-0	HMX	0.22	U M	0.23	0.22	0.097
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.10
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.49
121-82-4	RDX	0.22	U	0.23	0.22	0.057
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160044.D
 Lims ID: 280-197842-A-5-A
 Client ID: WBGmw-016-240901-GW
 Sample Type: Client
 Inject. Date: 17-Oct-2024 05:00:11 ALS Bottle#: 44 Worklist Smp#: 44
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-197842-A-5-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.567			ND	U
8 RDX	1		7.494			ND	
\$ 10 1,2-Dinitrobenzene	1	8.357	8.360	-0.003	23249	0.1783	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:45

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160044.d

Injection Date: 17-Oct-2024 05:00:11

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-5-A

Lab Sample ID: 280-197842-5

Worklist Smp#: 44

Client ID: WBGmw-016-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

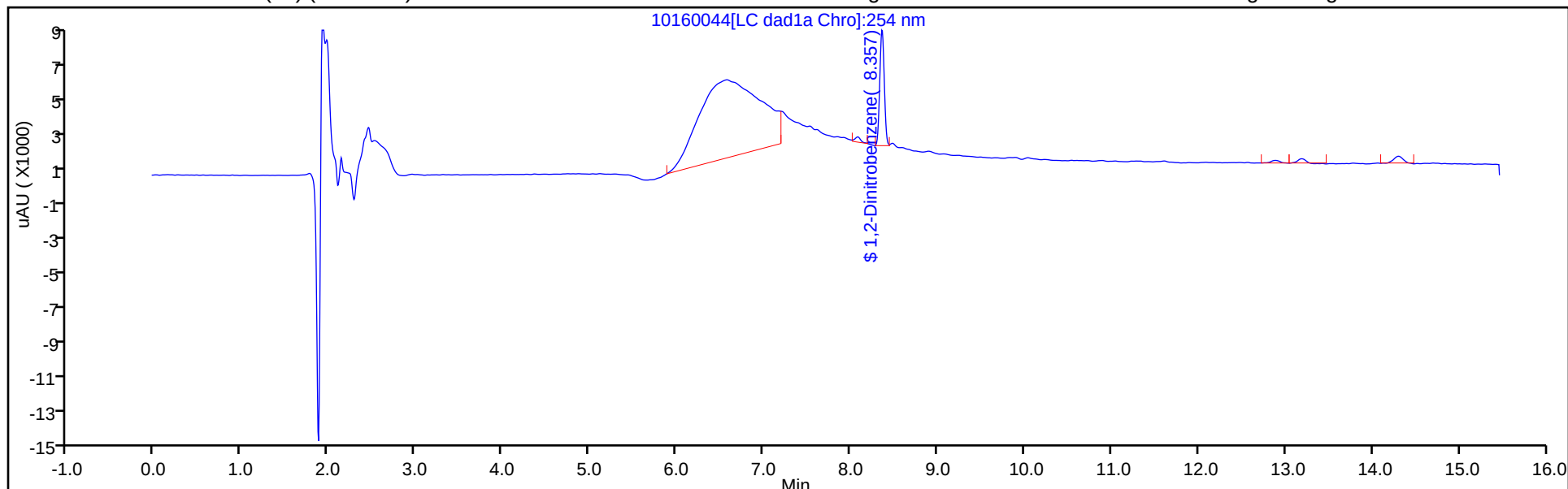
ALS Bottle#: 44

Method: 8330_X3

Limit Group: GCSV - 8330

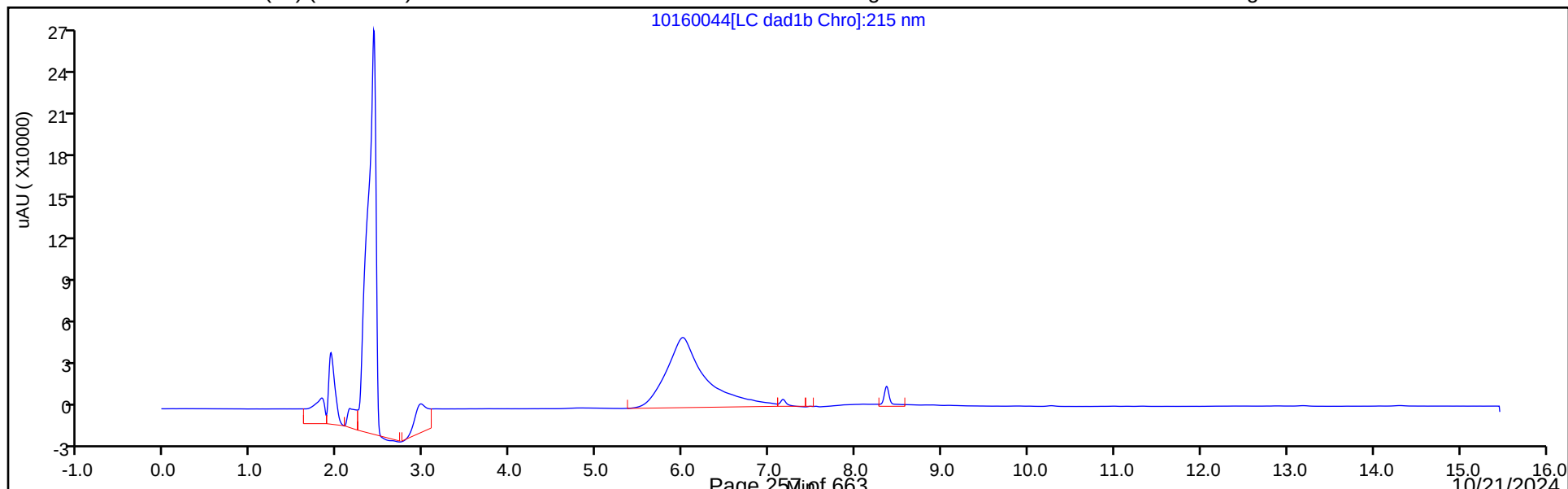
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160044.D
Lims ID: 280-197842-A-5-A
Client ID: WBGmw-016-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 05:00:11 ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-5-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:11

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1783	89.14

Eurofins Denver

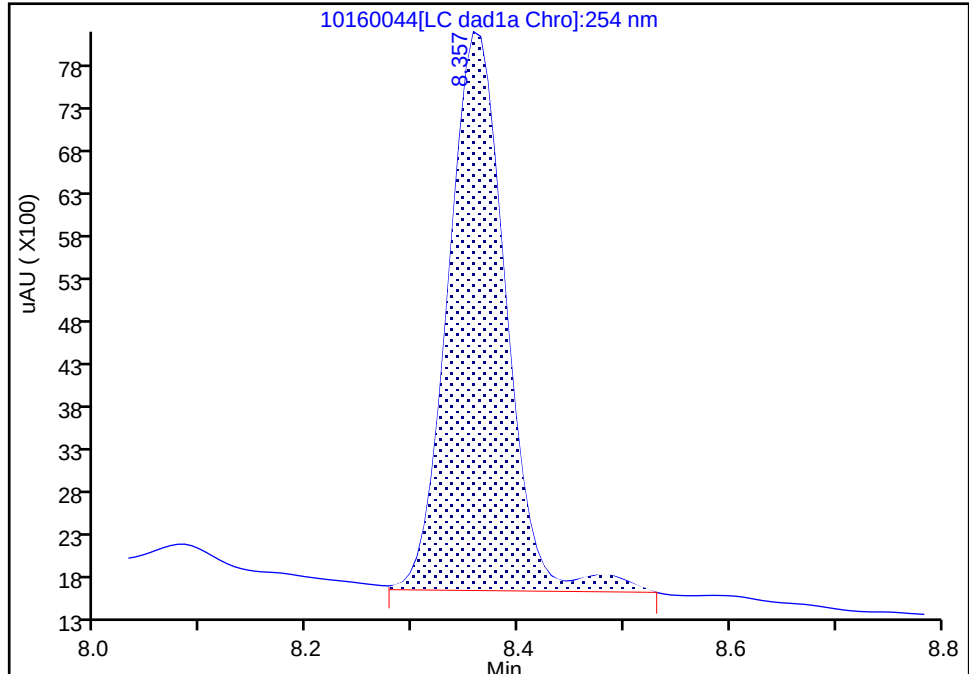
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160044.d
Injection Date: 17-Oct-2024 05:00:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-5-A Lab Sample ID: 280-197842-5
Client ID: WBGmw-016-240901-GW
Operator ID: JZ ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

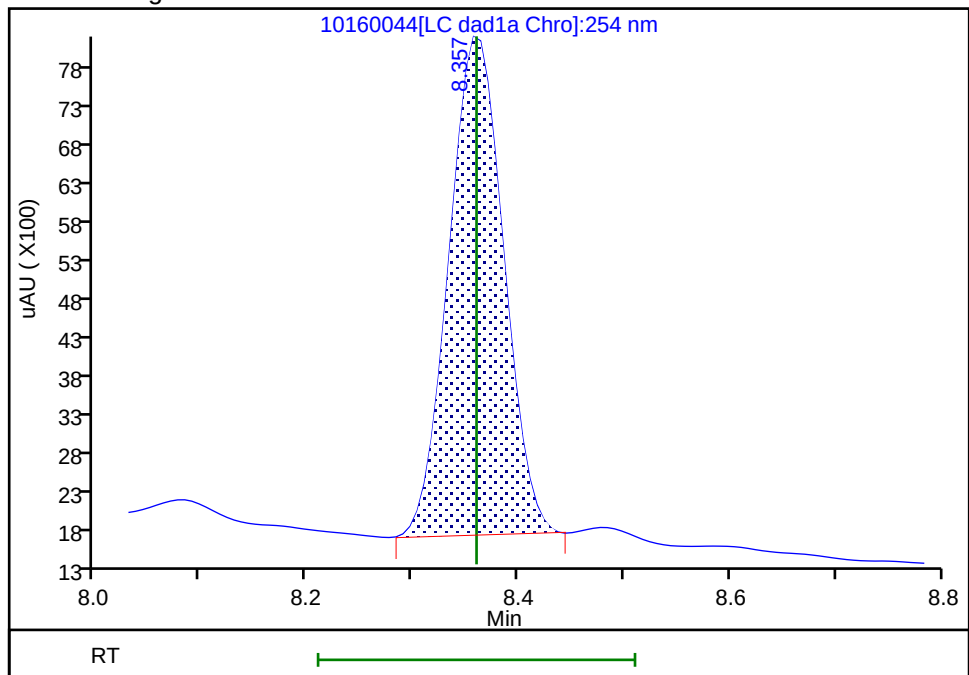
RT: 8.36
Area: 24758
Amount: 0.189848
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 23249
Amount: 0.178277
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:10 -06:00:00 (UTC)

Audit Action: Manually Integrated

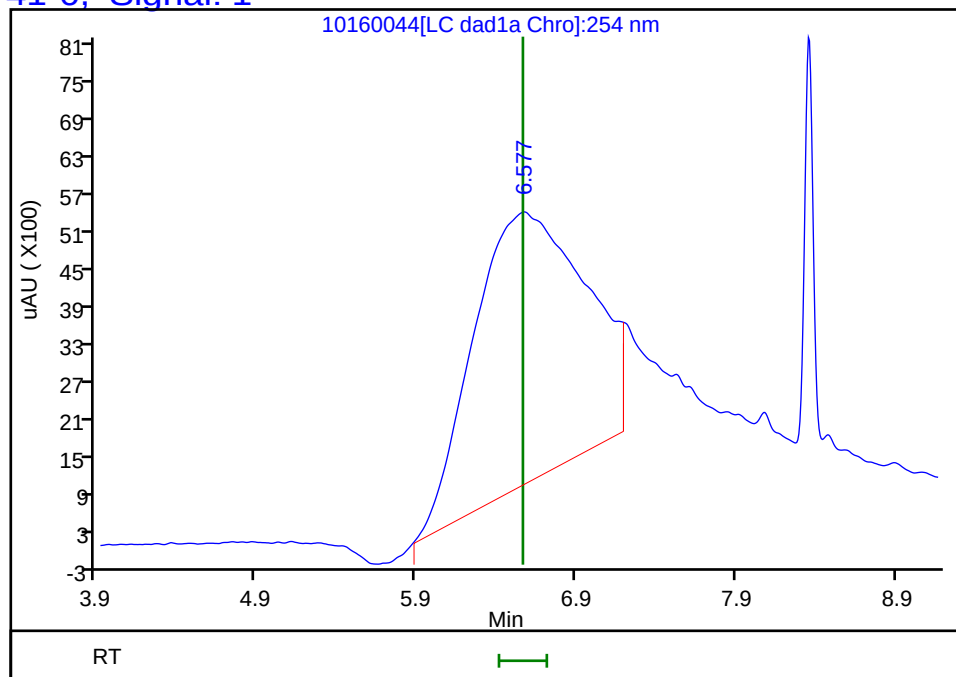
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160044.d
Injection Date: 17-Oct-2024 05:00:11 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-5-A Lab Sample ID: 280-197842-5
Client ID: WBGmw-016-240901-GW
Operator ID: JZ ALS Bottle#: 44 Worklist Smp#: 44
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

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.58
Response: 211977
Amount: 2.193177



Reviewer: LV5D, 17-Oct-2024 11:52:11

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-021-240901-GW</u>	Lab Sample ID: <u>280-197842-6</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160045.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 11:31</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>478.1 (mL)</u>	Date Analyzed: <u>10/17/2024 05:22</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.12	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.2	1.0	0.47
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.12	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160045.D
 Lims ID: 280-197842-A-6-A
 Client ID: WBGmw-021-240901-GW
 Sample Type: Client
 Inject. Date: 17-Oct-2024 05:22:10 ALS Bottle#: 45 Worklist Smp#: 45
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-197842-A-6-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.567			ND	U
8 RDX	1		7.494			ND	
\$ 10 1,2-Dinitrobenzene	1	8.360	8.360	0.000	24087	0.1847	
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	U
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:46

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160045.d

Injection Date: 17-Oct-2024 05:22:10

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-6-A

Lab Sample ID: 280-197842-6

Worklist Smp#: 45

Client ID: WBGmw-021-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

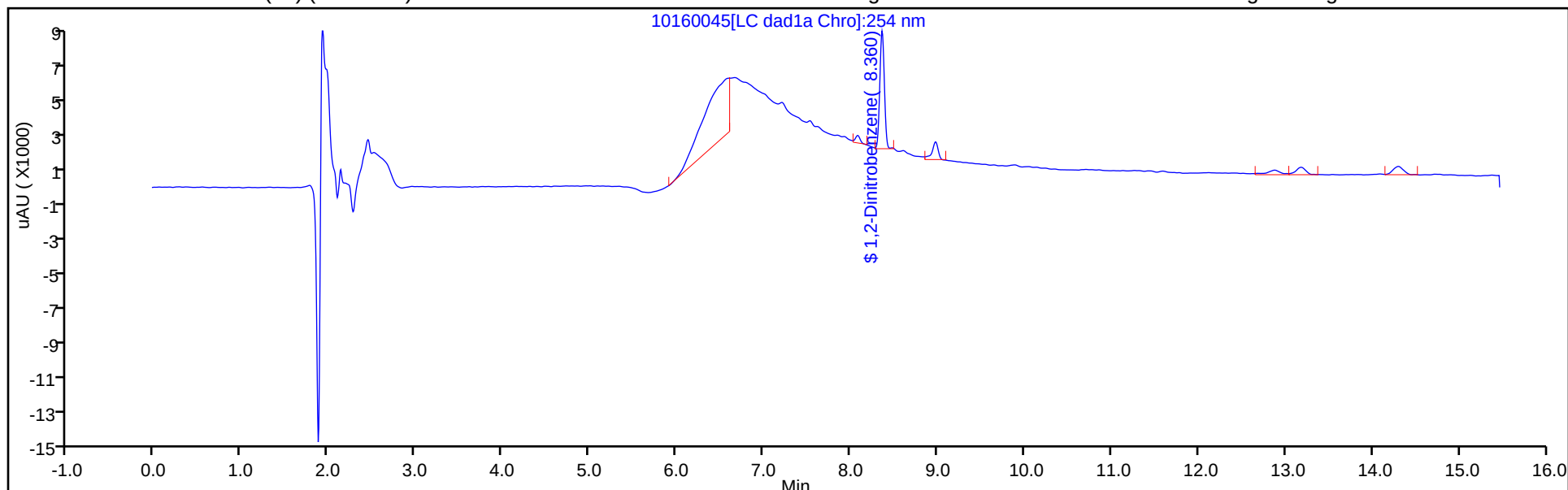
ALS Bottle#: 45

Method: 8330_X3

Limit Group: GCSV - 8330

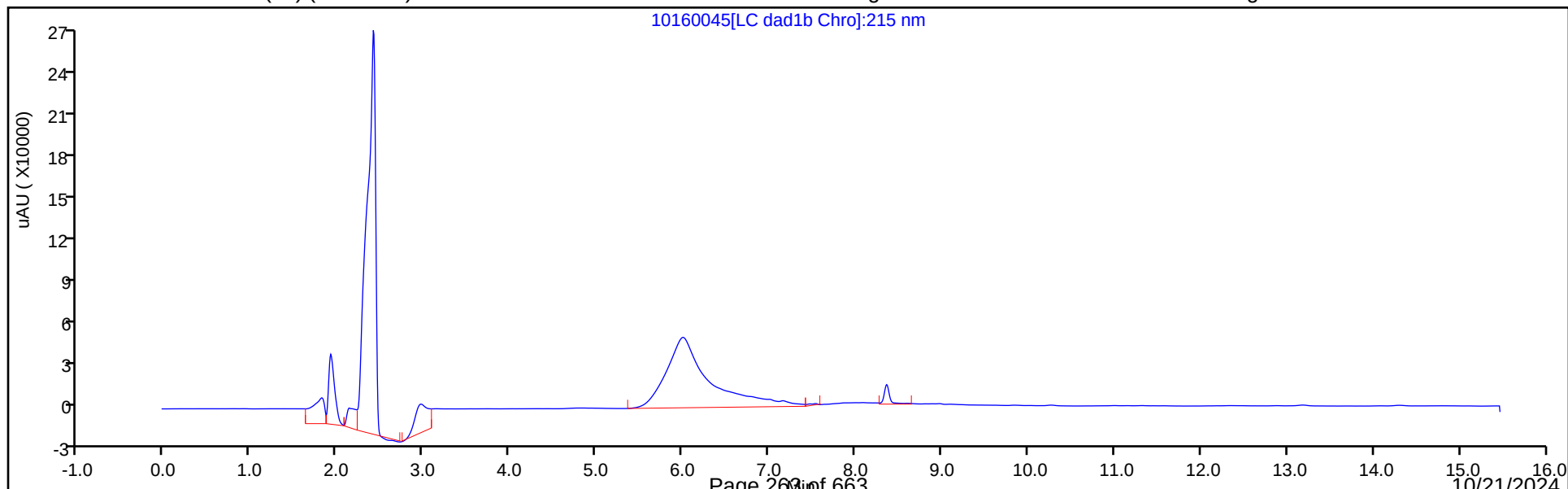
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160045.D
Lims ID: 280-197842-A-6-A
Client ID: WBGmw-021-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 05:22:10 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-6-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1847	92.35

Eurofins Denver

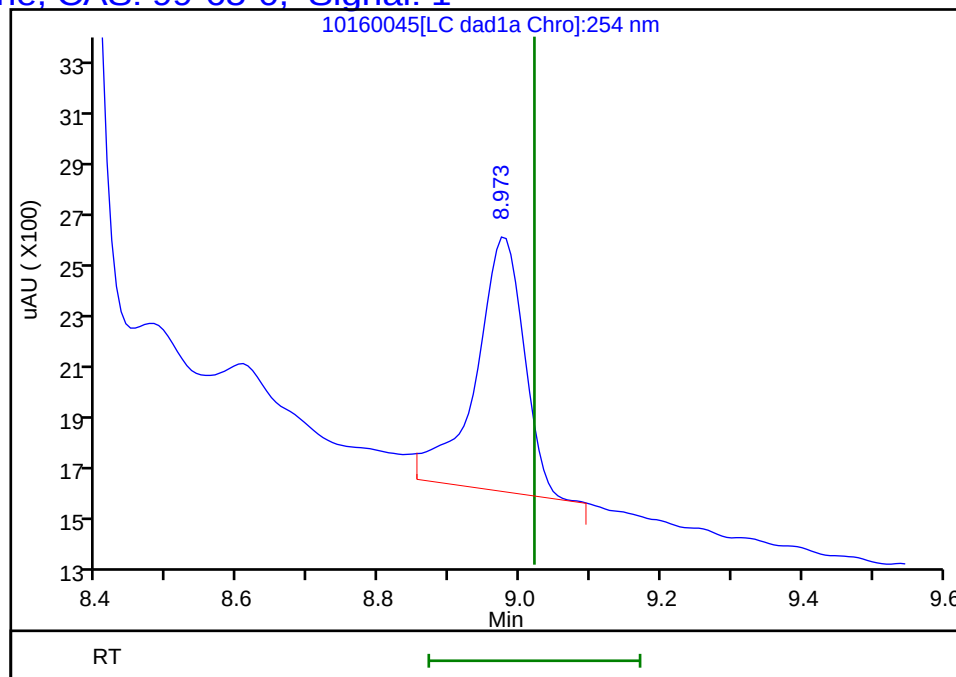
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160045.d
Injection Date: 17-Oct-2024 05:22:10 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-6-A Lab Sample ID: 280-197842-6
Client ID: WBGmw-021-240901-GW
Operator ID: JZ
Injection Vol: 100.0 ul
Method: 8330_X3

ALS Bottle#: 45 Worklist Smp#: 45
Dil. Factor: 1.0000
Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 8.97
Response: 4699
Amount: 0.015756



Reviewer: LV5D, 17-Oct-2024 11:52:18

Audit Action: Marked Compound Undetected

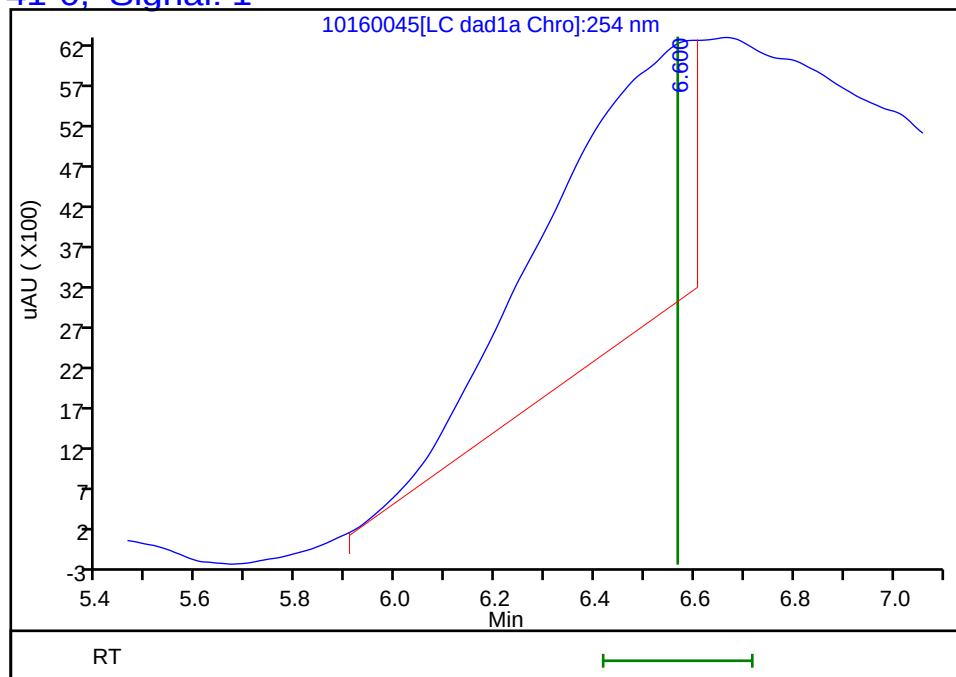
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160045.d
Injection Date: 17-Oct-2024 05:22:10 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-6-A Lab Sample ID: 280-197842-6
Client ID: WBGmw-021-240901-GW
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

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.60
Response: 69895
Amount: 0.723154



Reviewer: LV5D, 17-Oct-2024 11:52:18

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-009-240901-GW</u>	Lab Sample ID: <u>280-197842-7</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160046.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 12:34</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>453.4 (mL)</u>	Date Analyzed: <u>10/17/2024 05:44</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030
606-20-2	2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.094
99-08-1	3-Nitrotoluene	0.39	U	0.44	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.064
99-99-0	4-Nitrotoluene	0.44	U	0.45	0.44	0.11
2691-41-0	HMX	1.3	M	0.23	0.22	0.097
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.10
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.49
121-82-4	RDX	2.1	M	0.23	0.22	0.057
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160046.D
Lims ID: 280-197842-A-7-A
Client ID: WBGmw-009-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 05:44:04 ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.570	6.567	0.003	11240	0.1163	M
8 RDX	1	7.496	7.494	0.002	19700	0.1863	M
\$ 10 1,2-Dinitrobenzene	1	8.363	8.360	0.003	26523	0.2034	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 17-Oct-2024 12:00:46

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160046.d

Injection Date: 17-Oct-2024 05:44:04

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-7-A

Lab Sample ID: 280-197842-7

Worklist Smp#: 46

Client ID: WBGmw-009-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

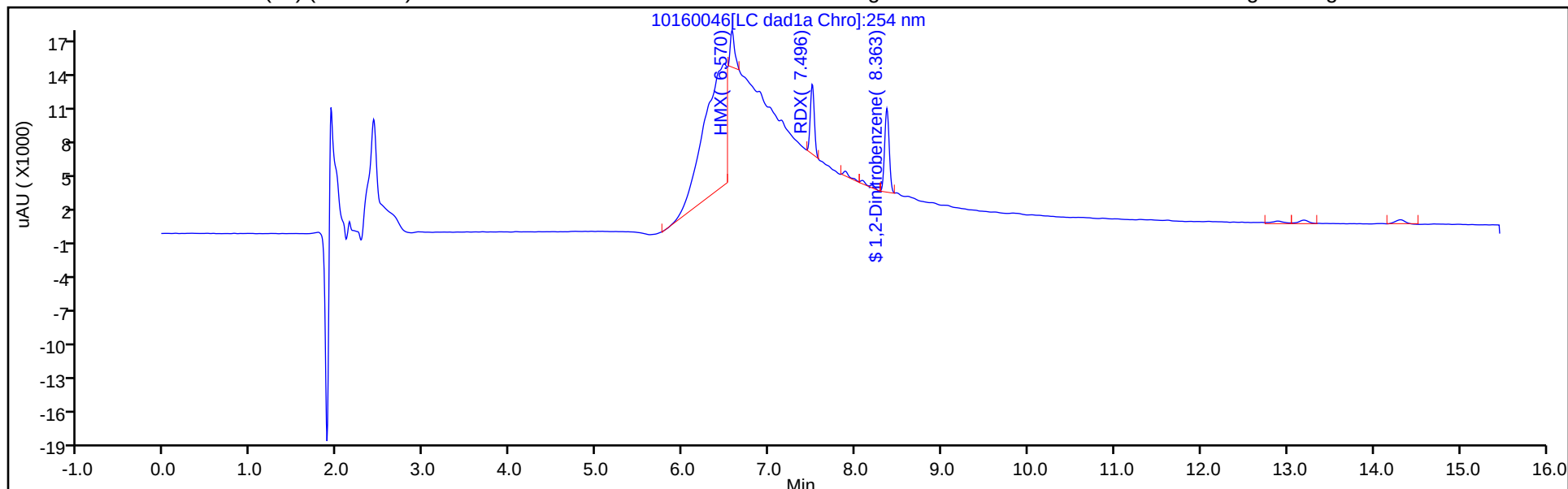
ALS Bottle#: 46

Method: 8330_X3

Limit Group: GCSV - 8330

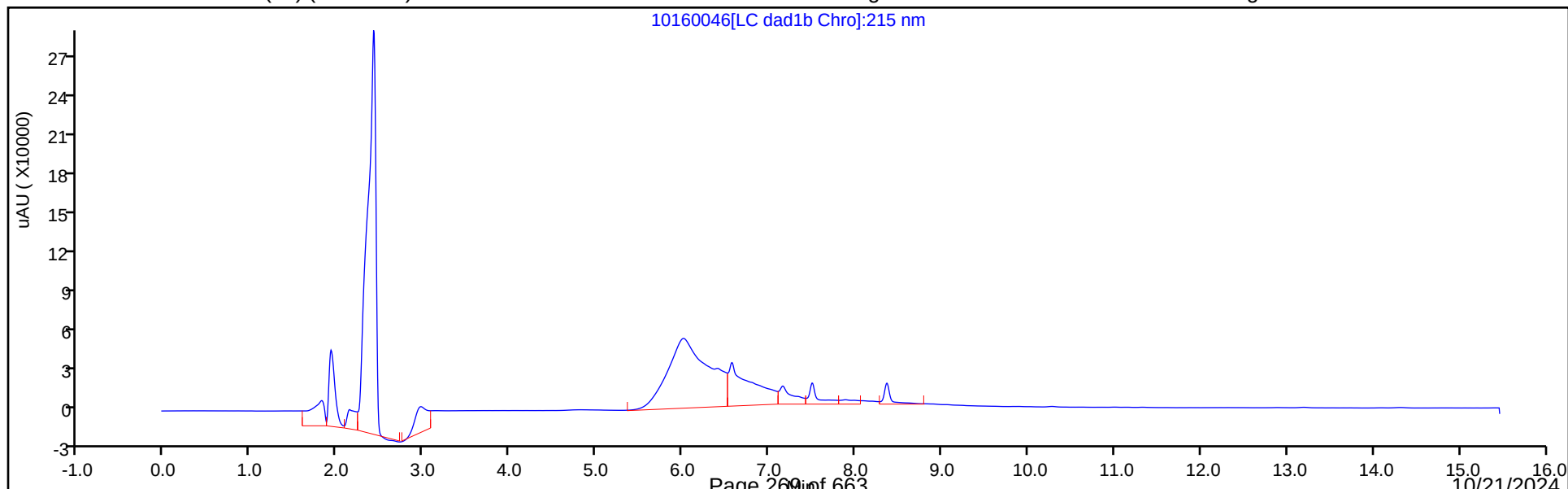
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160046.D
Lims ID: 280-197842-A-7-A
Client ID: WBGmw-009-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 05:44:04 ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2034	101.69

Eurofins Denver

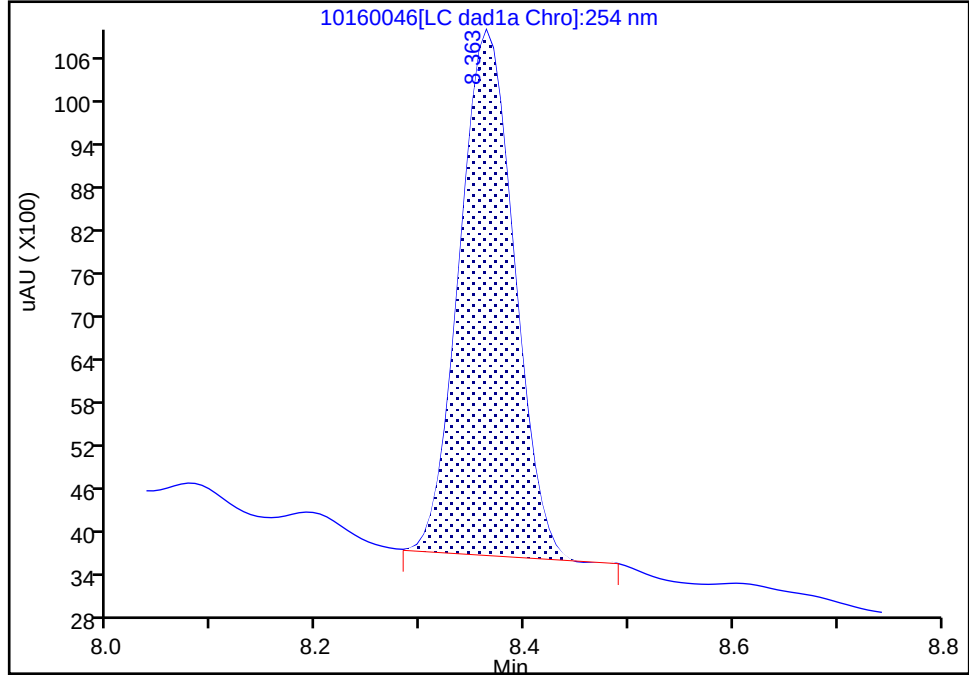
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160046.d
Injection Date: 17-Oct-2024 05:44:04 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

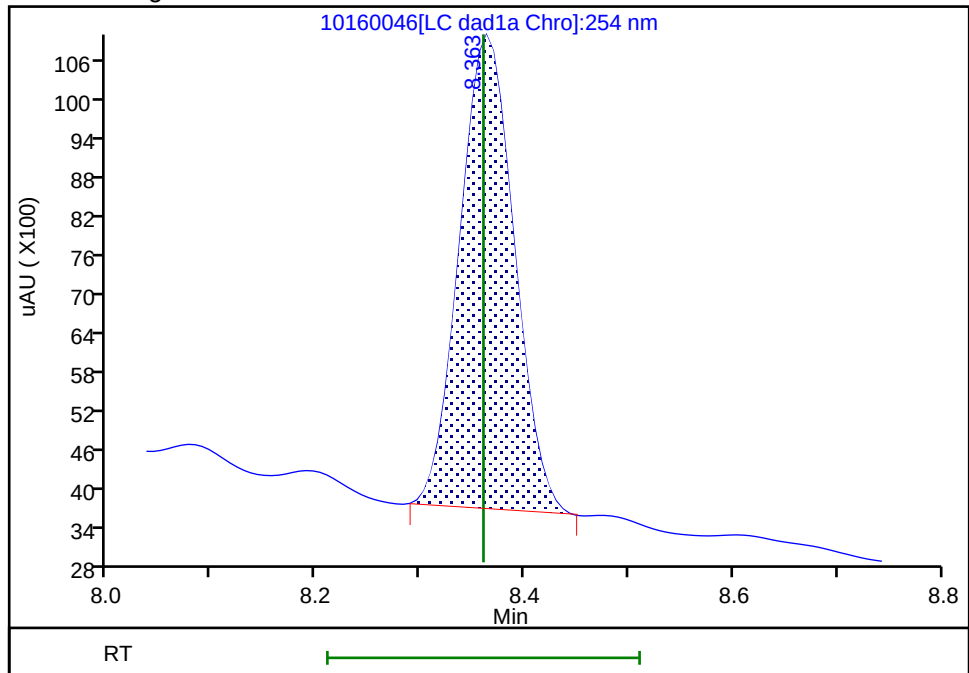
RT: 8.36
Area: 26670
Amount: 0.204509
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 26523
Amount: 0.203382
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:35 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

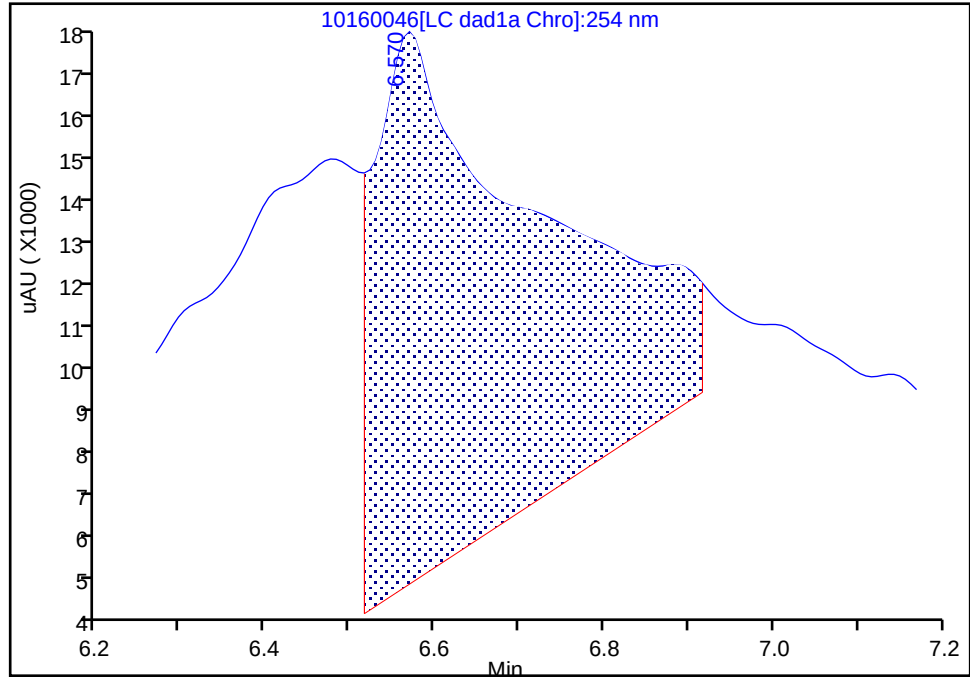
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160046.d
Injection Date: 17-Oct-2024 05:44:04 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

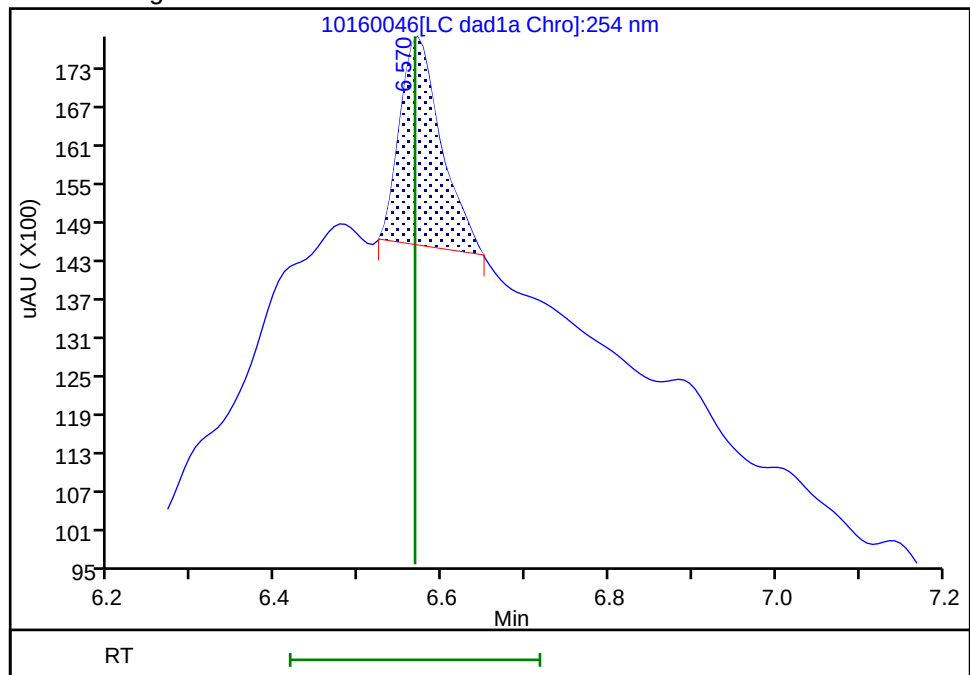
RT: 6.57
Area: 169490
Amount: 1.753594
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 11240
Amount: 0.116292
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

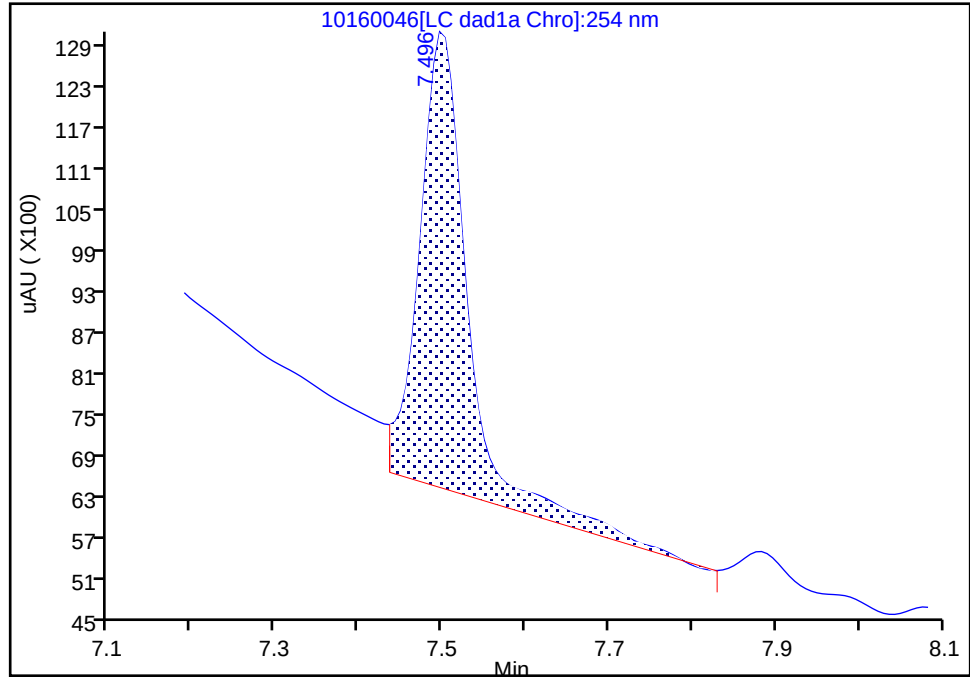
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160046.d
Injection Date: 17-Oct-2024 05:44:04 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

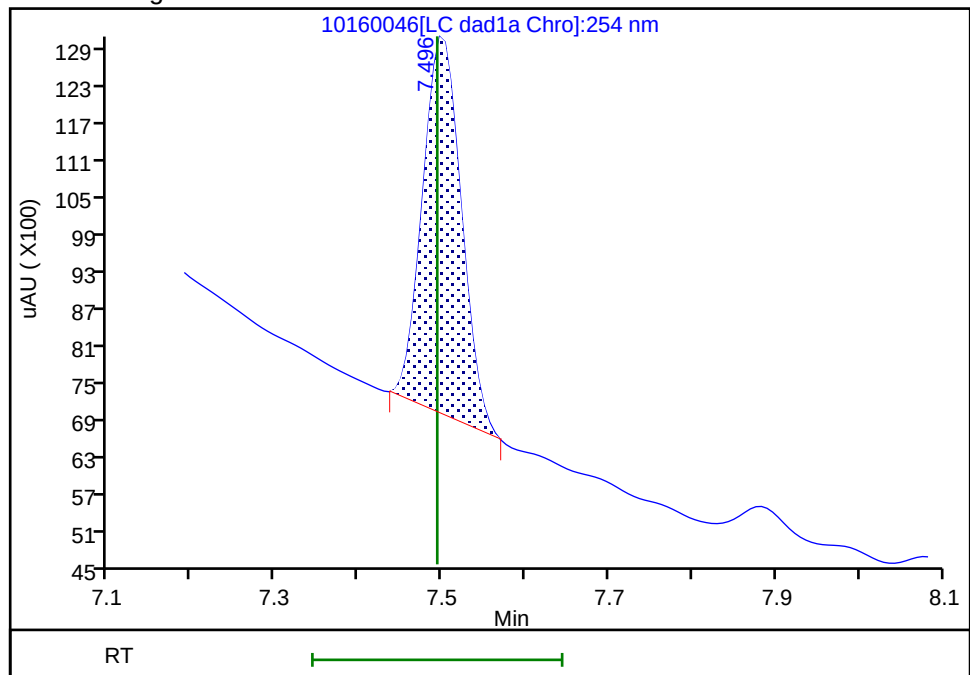
RT: 7.50
Area: 27252
Amount: 0.258303
Amount Units: ug/mL

Processing Integration Results



RT: 7.50
Area: 19700
Amount: 0.186264
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:29 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: WBGmw-009-240901-GW Lab Sample ID: 280-197842-7
Matrix: Water Lab File ID: 10170022.D
Analysis Method: 8330B Date Collected: 10/09/2024 12:34
Extraction Method: 3535 Date Extracted: 10/16/2024 10:50
Sample wt/vol: 453.4 (mL) Date Analyzed: 10/18/2024 00:38
Con. Extract Vol.: 5 (mL) Dilution Factor: 1
Injection Volume: 100 (uL) GC Column: Luna-phenylhex ID: 4.6 (mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 671457 Units: ug/L
Preparation Batch No.: 671072 Instrument ID: CHHPLC_X5

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Lims ID: 280-197842-A-7-A
Client ID: WBGmw-009-240901-GW
Sample Type: Client
Inject. Date: 18-Oct-2024 00:38:54 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:25:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.231	6.237	-0.006	15267	0.0847	M
8 RDX	1	8.318	8.324	-0.006	37350	0.1695	M
9 Nitrobenzene	1		10.877			ND	
\$ 10 1,2-Dinitrobenzene	1	11.671	11.677	-0.006	51098	0.1947	
12 1,3-Dinitrobenzene	1		13.691			ND	
13 Nitroglycerin	2		14.324			ND	
14 o-Nitrotoluene	1		14.871			ND	
16 p-Nitrotoluene	1		15.097			ND	U
17 4-Amino-2,6-dinitrotoluene	1		15.411			ND	U
18 m-Nitrotoluene	1		15.917			ND	
19 2-Amino-4,6-dinitrotoluene	1		16.137			ND	
20 1,3,5-Trinitrobenzene	1	16.418	16.384	0.034	3137	0.007402	M
21 2,6-Dinitrotoluene	1		17.504			ND	
22 2,4-Dinitrotoluene	1		17.931			ND	
23 Tetryl	1		20.891			ND	
24 2,4,6-Trinitrotoluene	1		21.777			ND	
25 PETN	2		23.231			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 18-Oct-2024 12:32:04

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D

Injection Date: 18-Oct-2024 00:38:54

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: 280-197842-A-7-A

Lab Sample ID: 280-197842-7

Worklist Smp#: 22

Client ID: WBGmw-009-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

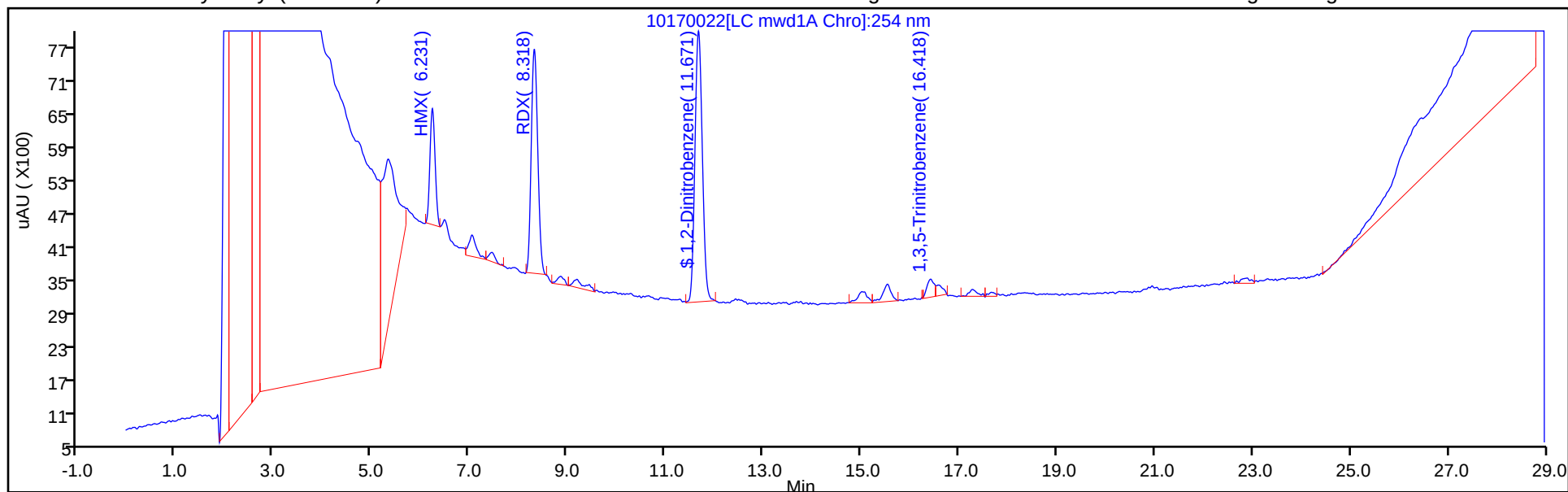
ALS Bottle#: 22

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

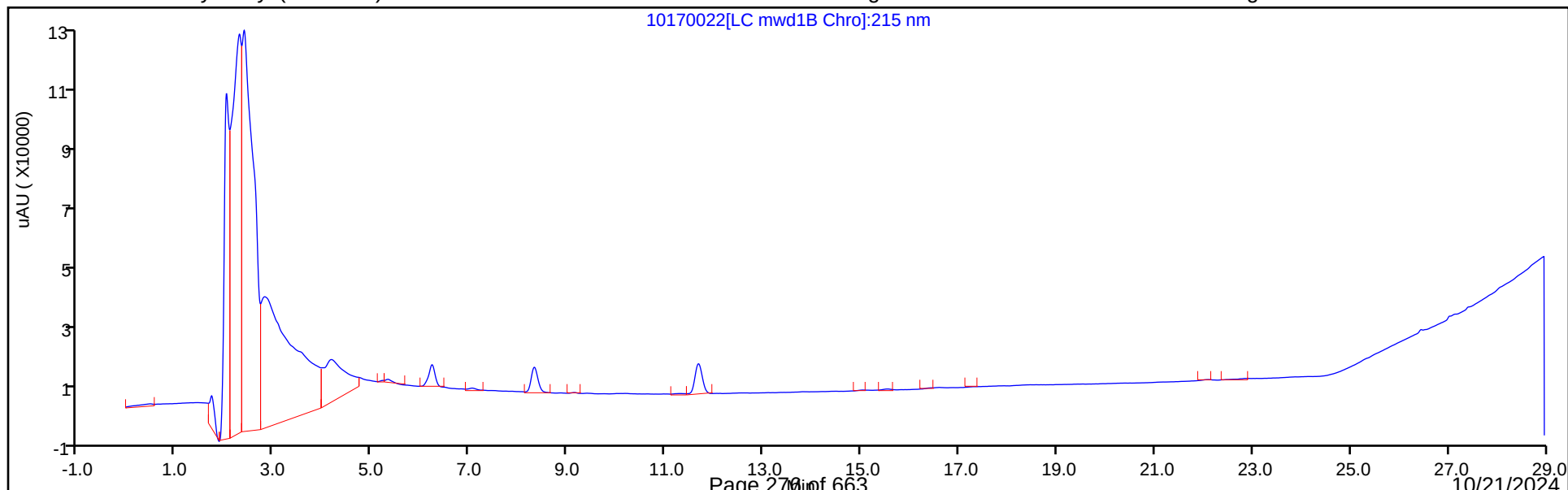
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Lims ID: 280-197842-A-7-A
Client ID: WBGmw-009-240901-GW
Sample Type: Client
Inject. Date: 18-Oct-2024 00:38:54 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:25:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1947	97.33

Eurofins Denver

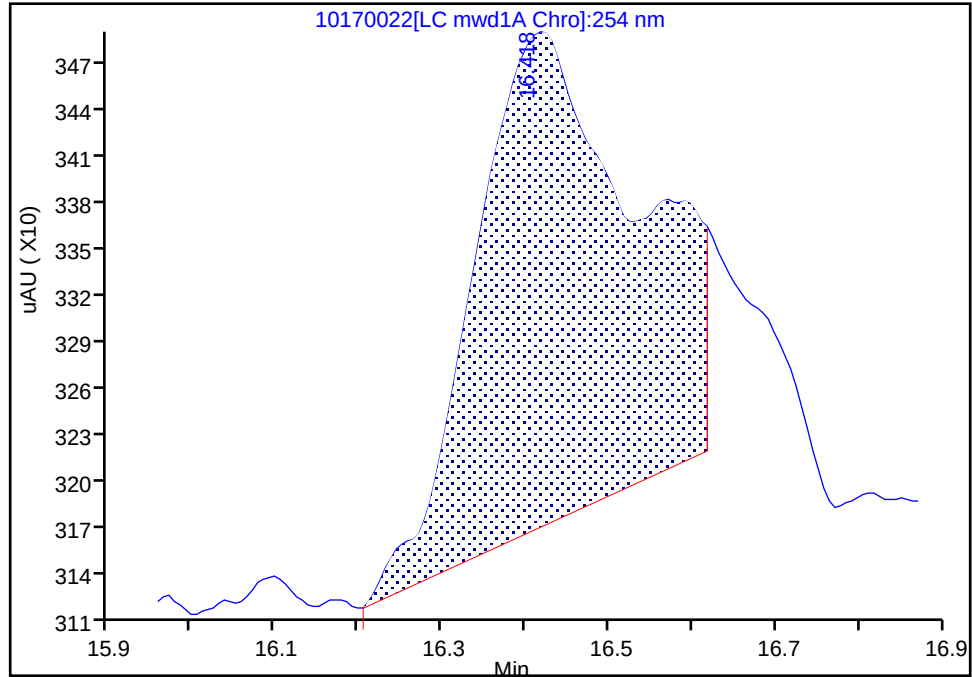
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Injection Date: 18-Oct-2024 00:38:54 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

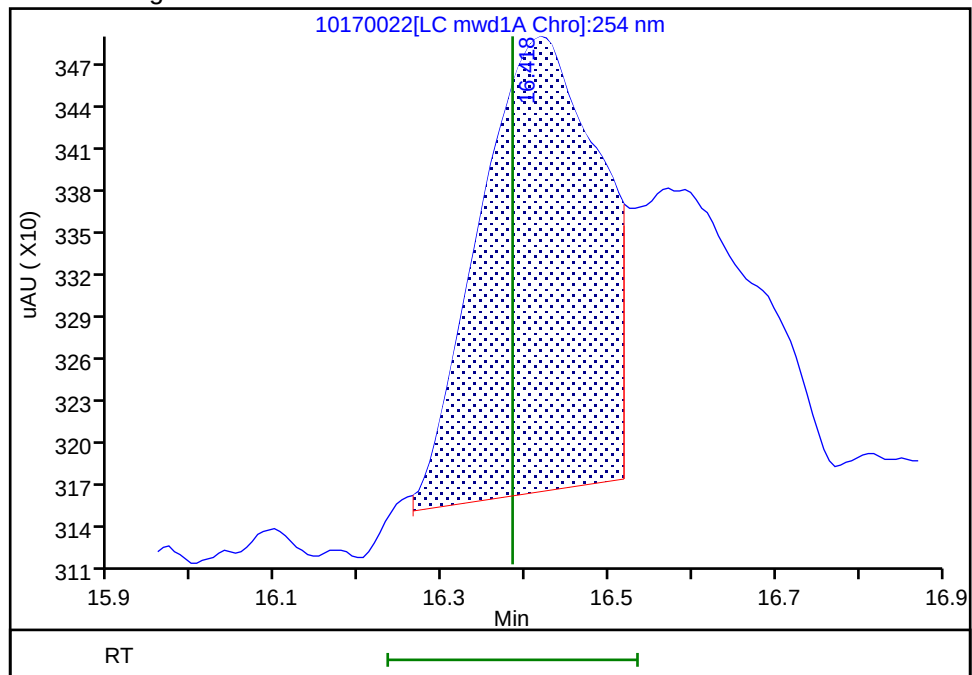
RT: 16.42
Area: 4165
Amount: 0.009828
Amount Units: ug/ml

Processing Integration Results



RT: 16.42
Area: 3137
Amount: 0.007402
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:24:27 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

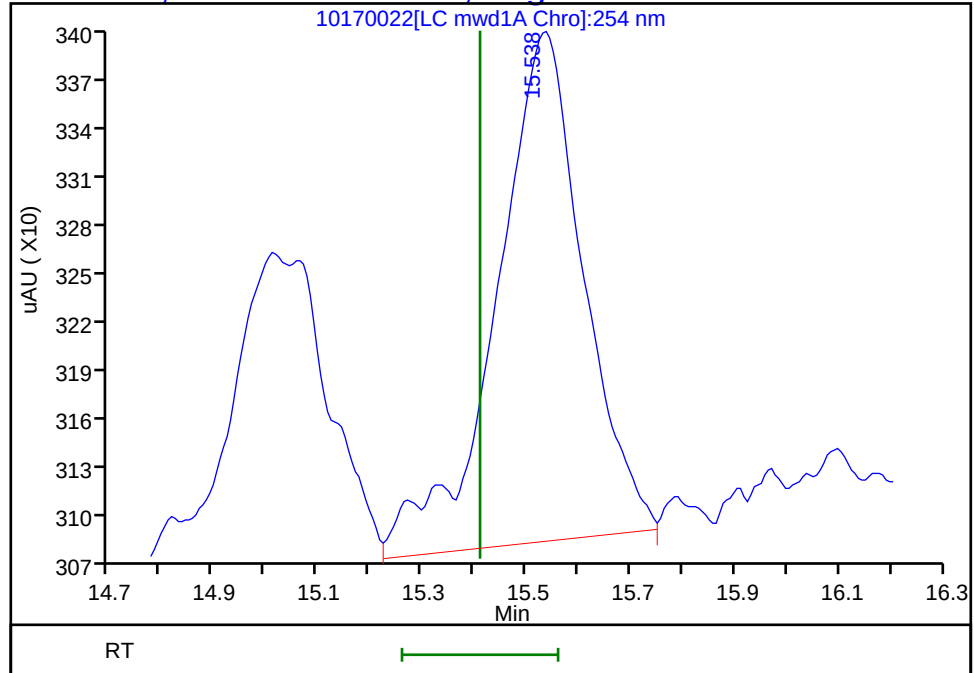
Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Injection Date: 18-Oct-2024 00:38:54 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 15.54
Response: 3553
Amount: 0.012754



Reviewer: LV5D, 18-Oct-2024 12:25:38

Audit Action: Marked Compound Undetected

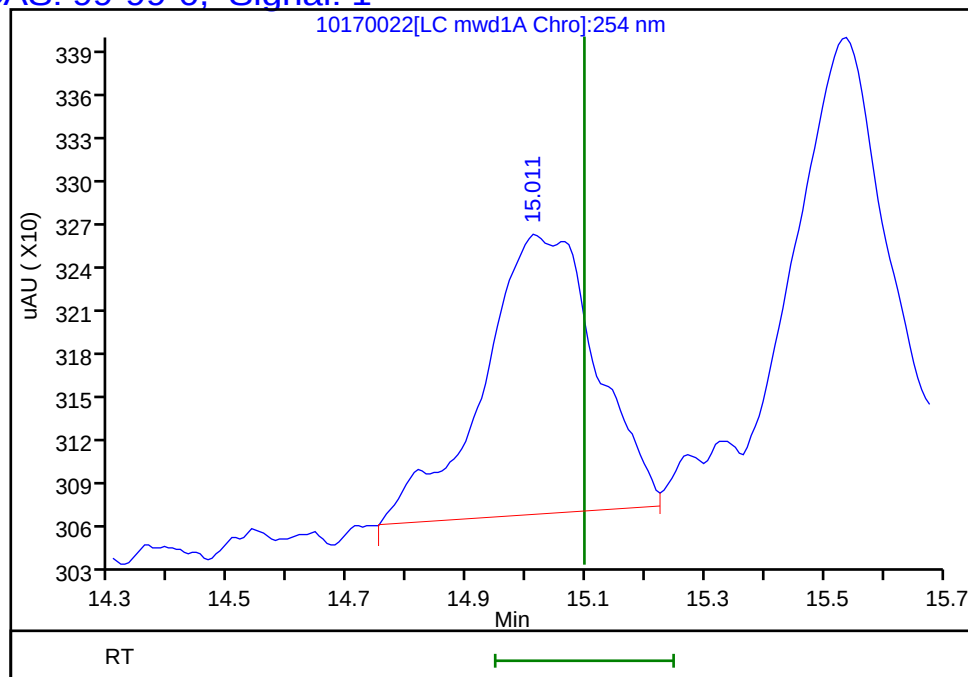
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Injection Date: 18-Oct-2024 00:38:54 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 15.01
Response: 2517
Amount: 0.011891



Reviewer: LV5D, 18-Oct-2024 12:25:38

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

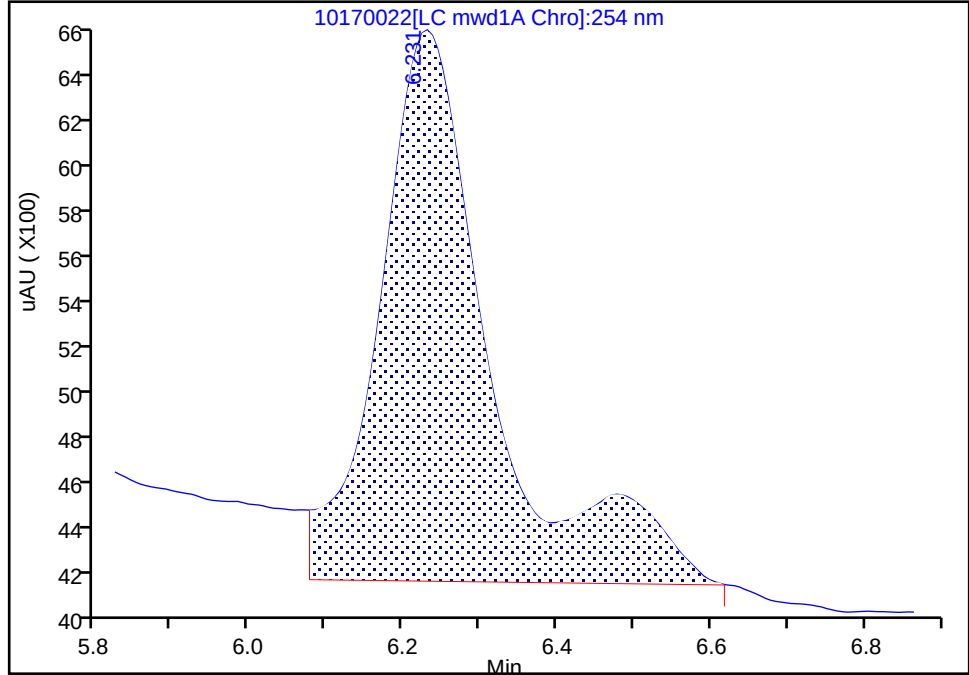
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D
Injection Date: 18-Oct-2024 00:38:54 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-7-A Lab Sample ID: 280-197842-7
Client ID: WBGmw-009-240901-GW
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

5 HMX, CAS: 2691-41-0

Signal: 1

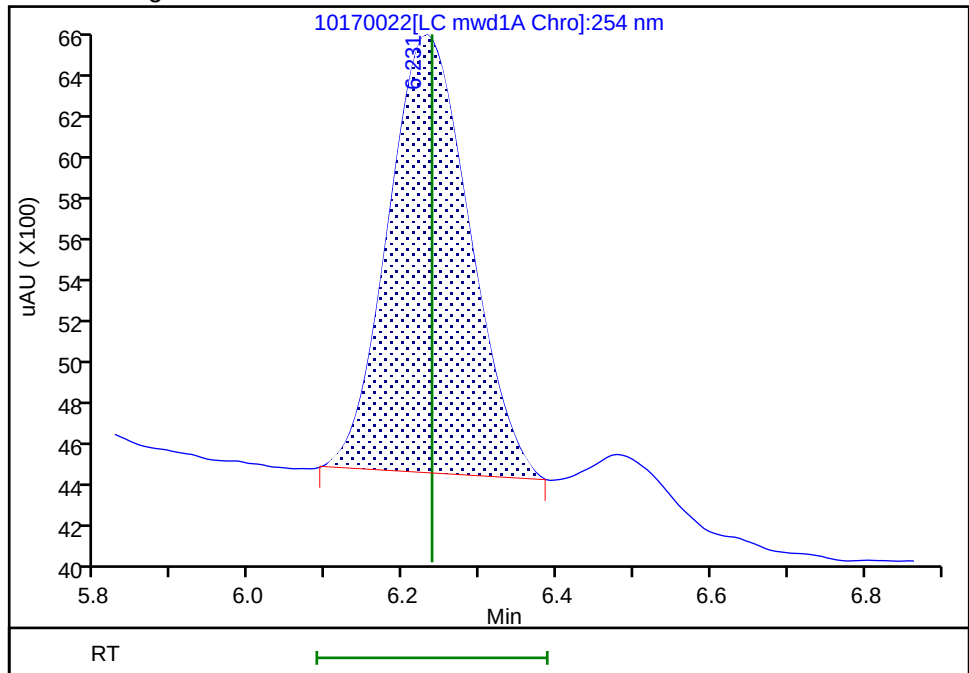
RT: 6.23
Area: 23817
Amount: 0.132069
Amount Units: ug/ml

Processing Integration Results



RT: 6.23
Area: 15267
Amount: 0.084658
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:24:02 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

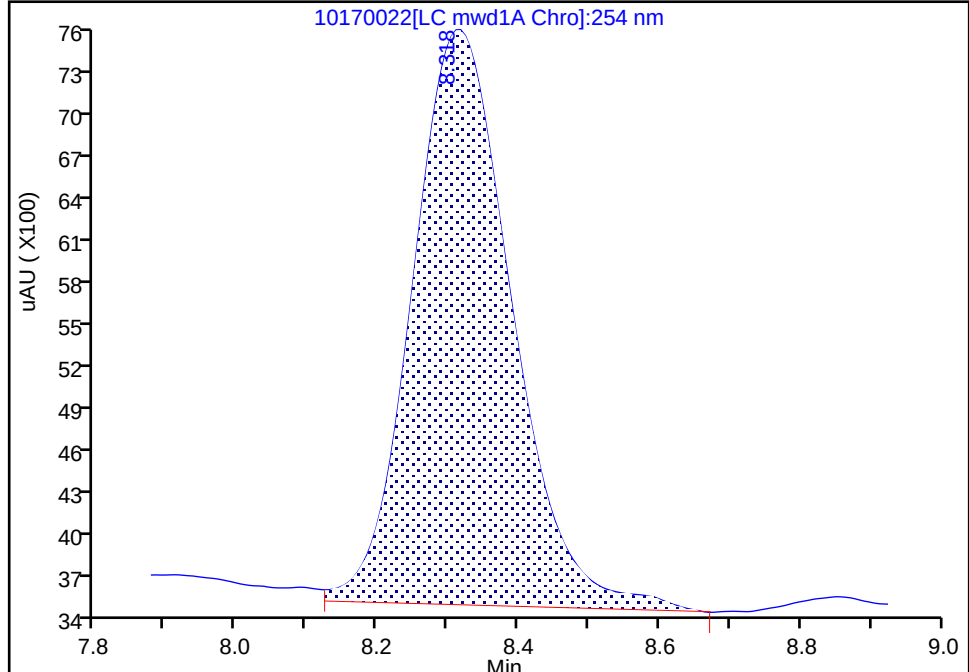
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170022.D				
Injection Date:	18-Oct-2024 00:38:54	Instrument ID:	CHHPLC_X5		
Lims ID:	280-197842-A-7-A	Lab Sample ID:	280-197842-7		
Client ID:	WBGmw-009-240901-GW				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

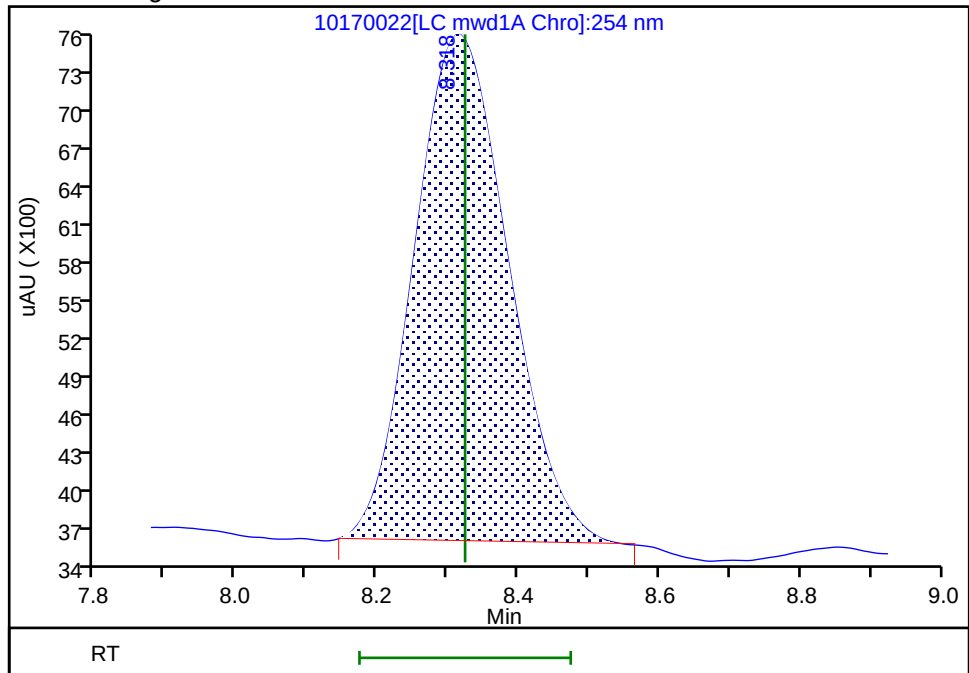
RT: 8.32
Area: 40534
Amount: 0.183947
Amount Units: ug/ml

Processing Integration Results



RT: 8.32
Area: 37350
Amount: 0.169498
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:24:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-018-240901-GW</u>	Lab Sample ID: <u>280-197842-8</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160047.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 12:35</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>463.8 (mL)</u>	Date Analyzed: <u>10/17/2024 06:06</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

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 M	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	0.086	U	0.11	0.086	0.030
606-20-2	2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
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	0.22	U	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	0.99
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.12	J M	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160047.D
Lims ID: 280-197842-A-8-A
Client ID: WBGmw-018-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 06:06:02 ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.565	6.567	-0.002	1274	0.0132	M
8 RDX	1	7.498	7.494	0.004	1321	0.0109	M
\$ 10 1,2-Dinitrobenzene	1	8.365	8.360	0.005	23726	0.1819	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	U
12 1,3-Dinitrobenzene	1		9.020			ND	U
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:47

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d

Injection Date: 17-Oct-2024 06:06:02

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-A-8-A

Lab Sample ID: 280-197842-8

Worklist Smp#: 47

Client ID: WBGmw-018-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

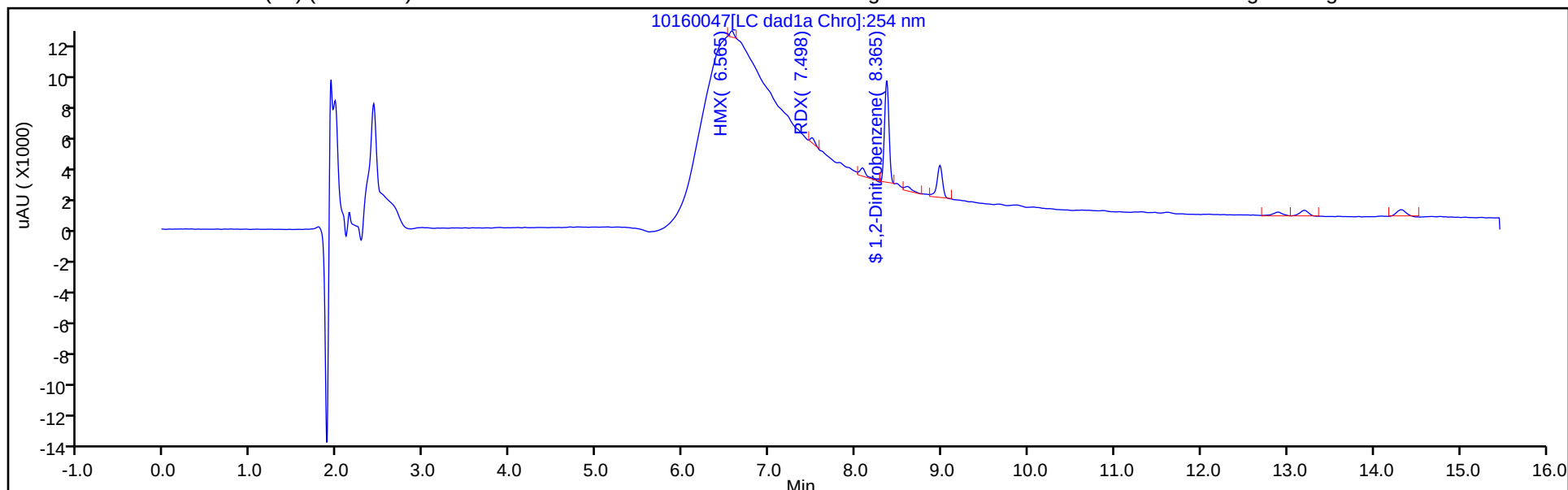
ALS Bottle#: 47

Method: 8330_X3

Limit Group: GCSV - 8330

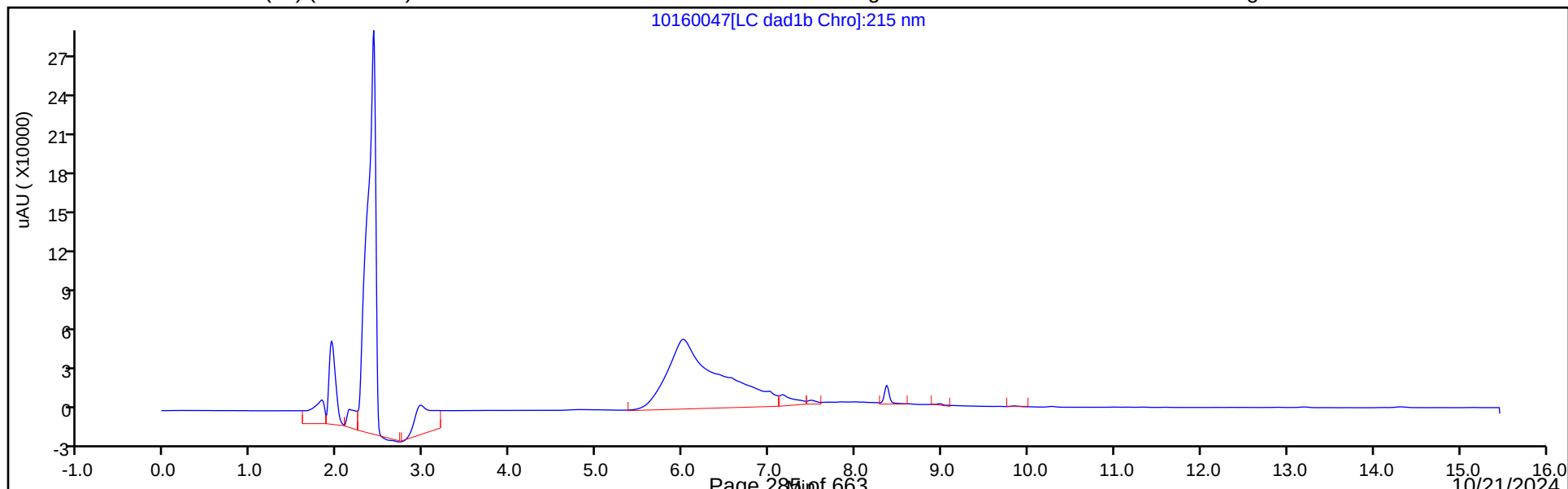
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160047.D
Lims ID: 280-197842-A-8-A
Client ID: WBGmw-018-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 06:06:02 ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:52:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1819	90.97

Eurofins Denver

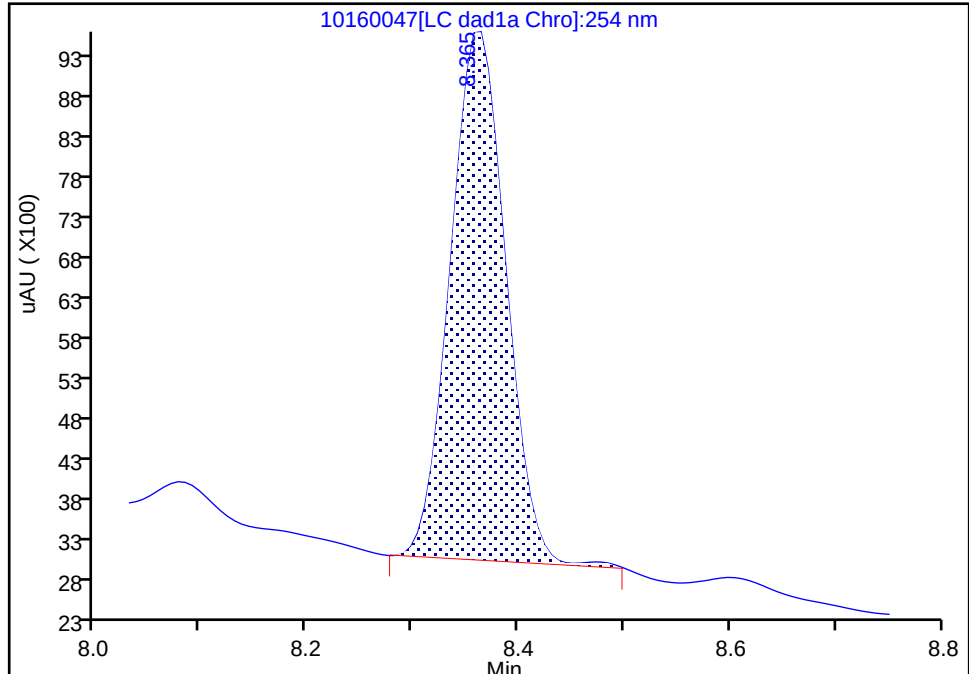
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d
Injection Date: 17-Oct-2024 06:06:02 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

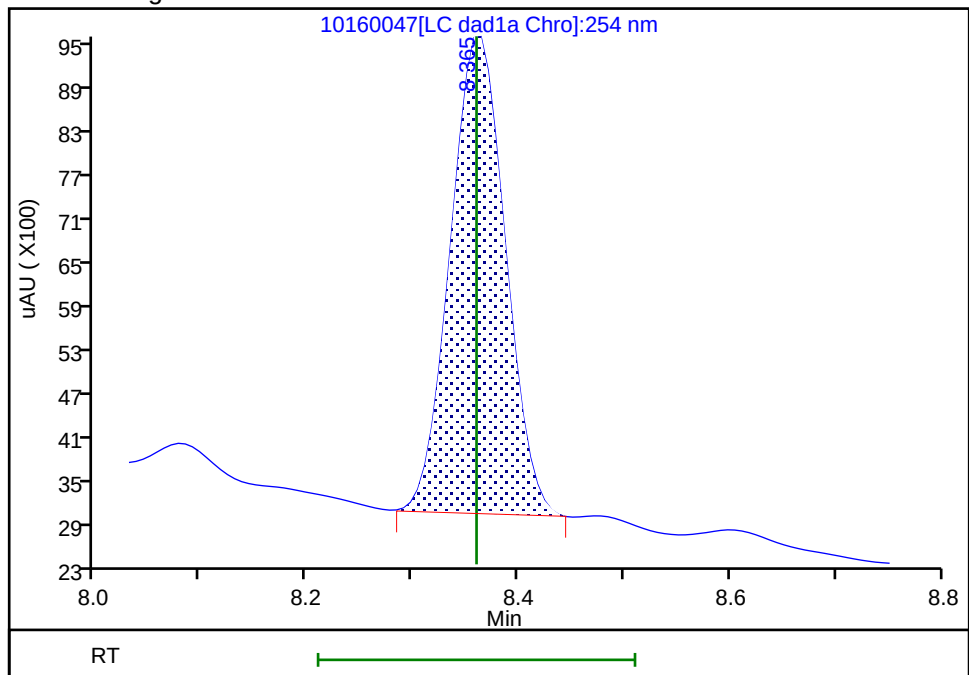
RT: 8.36
Area: 23973
Amount: 0.183828
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 23726
Amount: 0.181934
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:42 -06:00:00 (UTC)

Audit Action: Manually Integrated

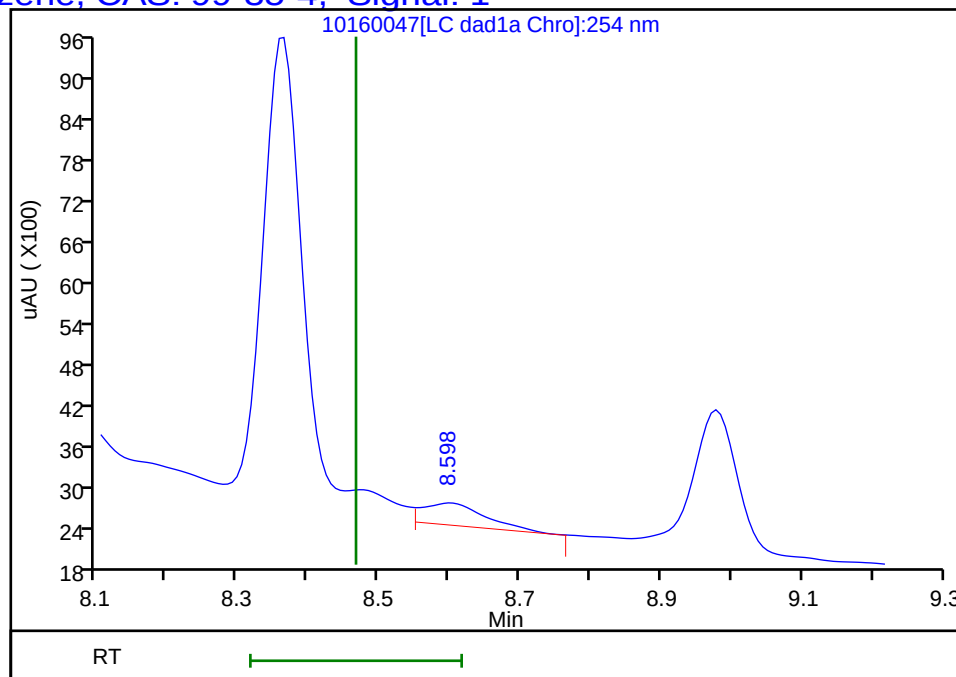
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d
Injection Date: 17-Oct-2024 06:06:02 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
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

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.60
Response: 1900
Amount: 0.008742



Reviewer: LV5D, 17-Oct-2024 11:52:54

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

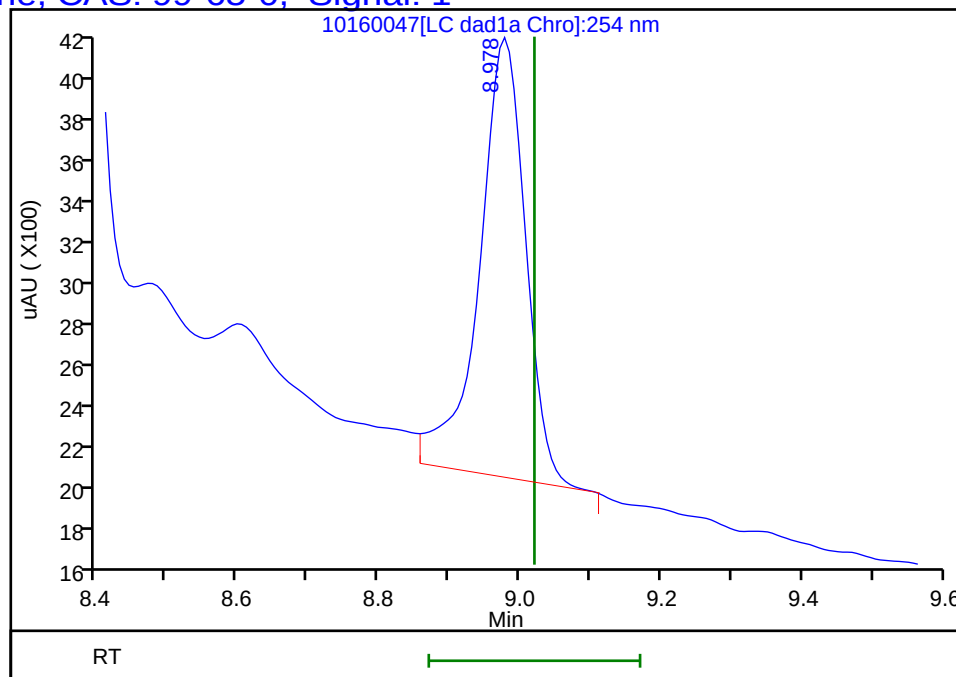
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d
Injection Date: 17-Oct-2024 06:06:02 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
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

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 8.98
Response: 9530
Amount: 0.031955



Reviewer: LV5D, 17-Oct-2024 11:52:54

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

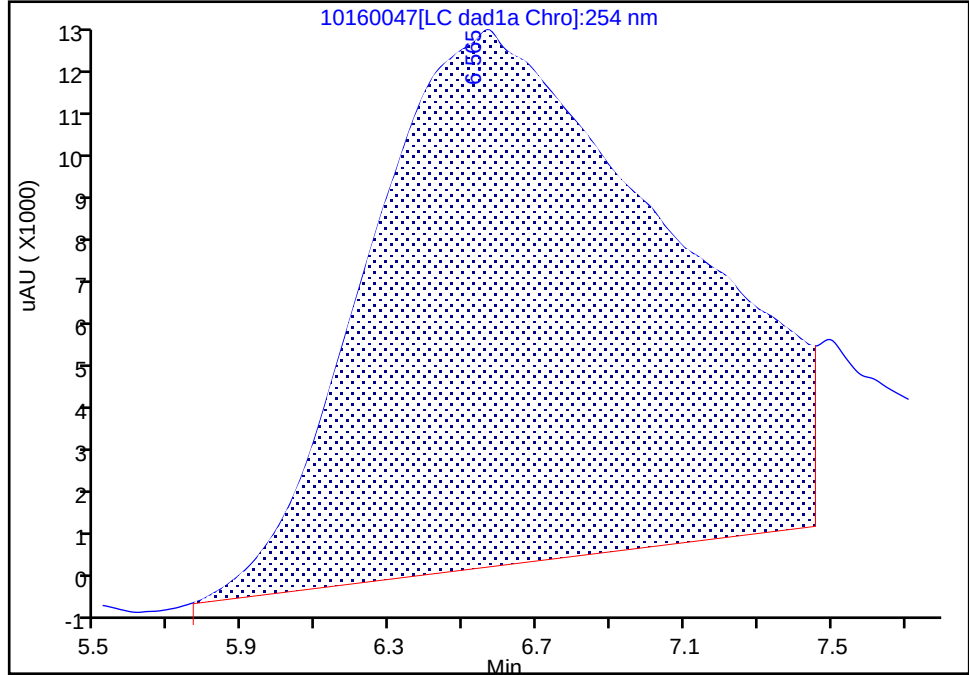
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d
Injection Date: 17-Oct-2024 06:06:02 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

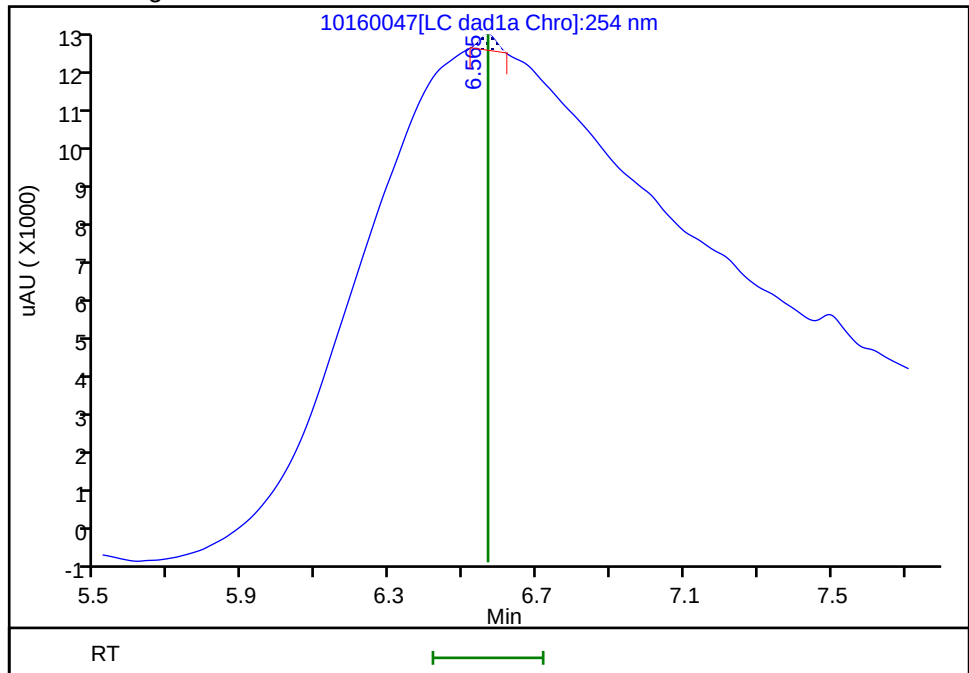
RT: 6.56
Area: 677849
Amount: 7.013227
Amount Units: ug/mL

Processing Integration Results



RT: 6.56
Area: 1274
Amount: 0.013181
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:50 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

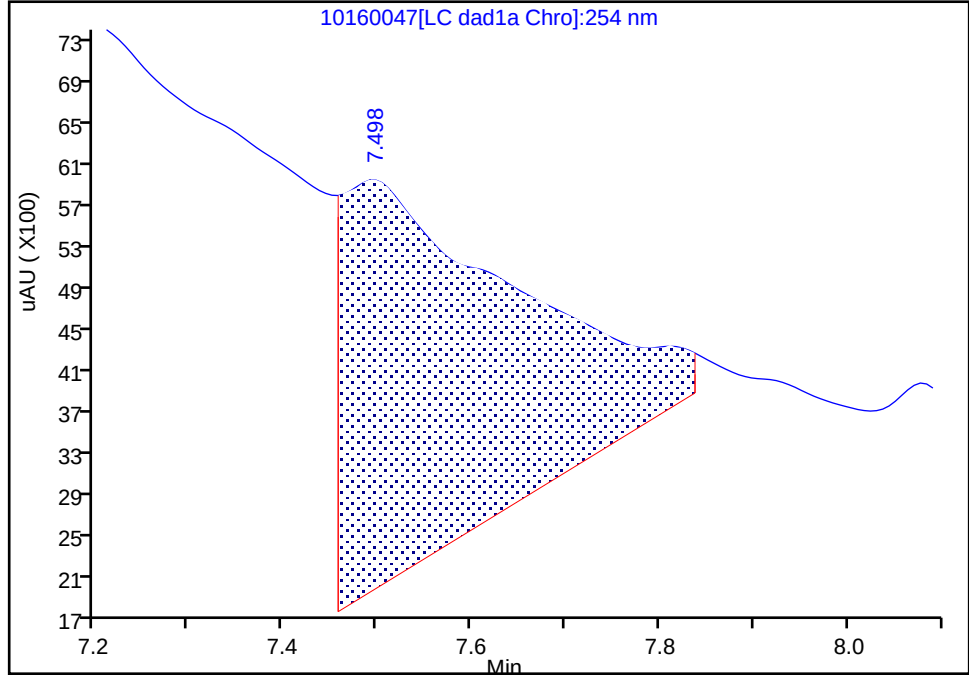
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160047.d
Injection Date: 17-Oct-2024 06:06:02 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

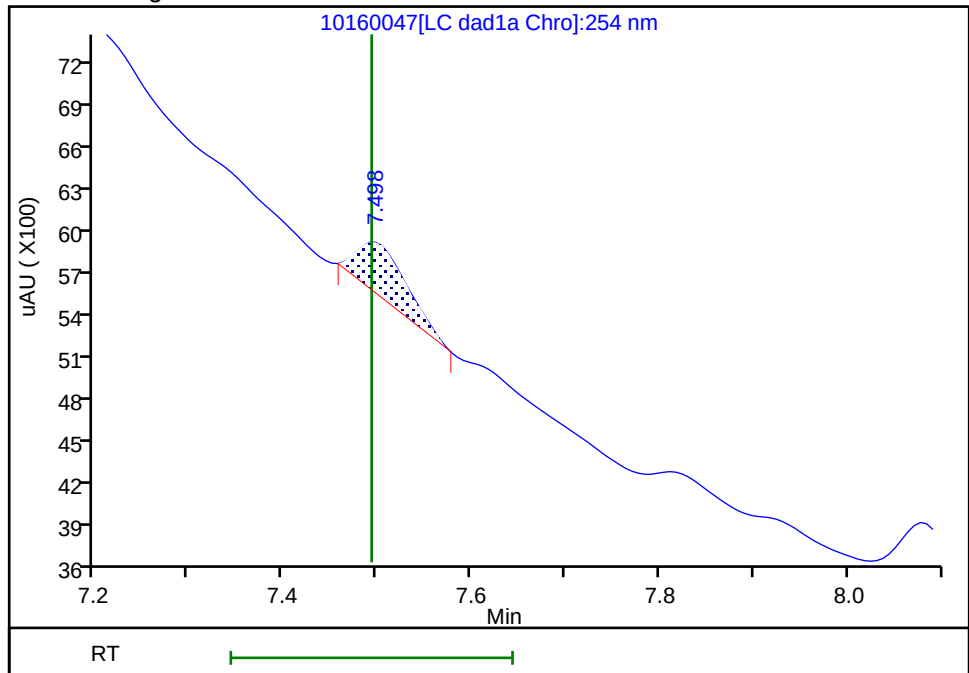
RT: 7.50
Area: 48489
Amount: 0.460884
Amount Units: ug/mL

Processing Integration Results



RT: 7.50
Area: 1321
Amount: 0.010946
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:52:54 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Client Sample ID: WBGmw-018-240901-GW Lab Sample ID: 280-197842-8
Matrix: Water Lab File ID: 10170023.D
Analysis Method: 8330B Date Collected: 10/09/2024 12:35
Extraction Method: 3535 Date Extracted: 10/16/2024 10:50
Sample wt/vol: 463.8 (mL) Date Analyzed: 10/18/2024 01:13
Con. Extract Vol.: 5 (mL) Dilution Factor: 1
Injection Volume: 100 (uL) GC Column: Luna-phenylhex ID: 4.6 (mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 671457 Units: ug/L
Preparation Batch No.: 671072 Instrument ID: CHHPLC_X5

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	0.22	U M	0.23	0.22	0.094

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Lims ID: 280-197842-A-8-A
Client ID: WBGmw-018-240901-GW
Sample Type: Client
Inject. Date: 18-Oct-2024 01:13:49 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:30:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.206	6.237	-0.031	733	0.004065	7M
8 RDX	1	8.312	8.324	-0.012	2588	0.0117	M
9 Nitrobenzene	1		10.877			ND	
\$ 10 1,2-Dinitrobenzene	1	11.679	11.677	0.002	47873	0.1824	
12 1,3-Dinitrobenzene	1		13.691			ND	
13 Nitroglycerin	2		14.324			ND	7
14 o-Nitrotoluene	1		14.871			ND	
16 p-Nitrotoluene	1	15.026	15.097	-0.071	2383	0.0113	M
17 4-Amino-2,6-dinitrotoluene	1		15.411			ND	U
18 m-Nitrotoluene	1		15.917			ND	
19 2-Amino-4,6-dinitrotoluene	1		16.137			ND	
20 1,3,5-Trinitrobenzene	1	16.412	16.384	0.028	4512	0.0106	M
21 2,6-Dinitrotoluene	1		17.504			ND	
22 2,4-Dinitrotoluene	1		17.931			ND	
23 Tetryl	1		20.891			ND	
24 2,4,6-Trinitrotoluene	1		21.777			ND	
25 PETN	2		23.231			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 18-Oct-2024 12:32:05

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D

Injection Date: 18-Oct-2024 01:13:49

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: 280-197842-A-8-A

Lab Sample ID: 280-197842-8

Worklist Smp#: 23

Client ID: WBGmw-018-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

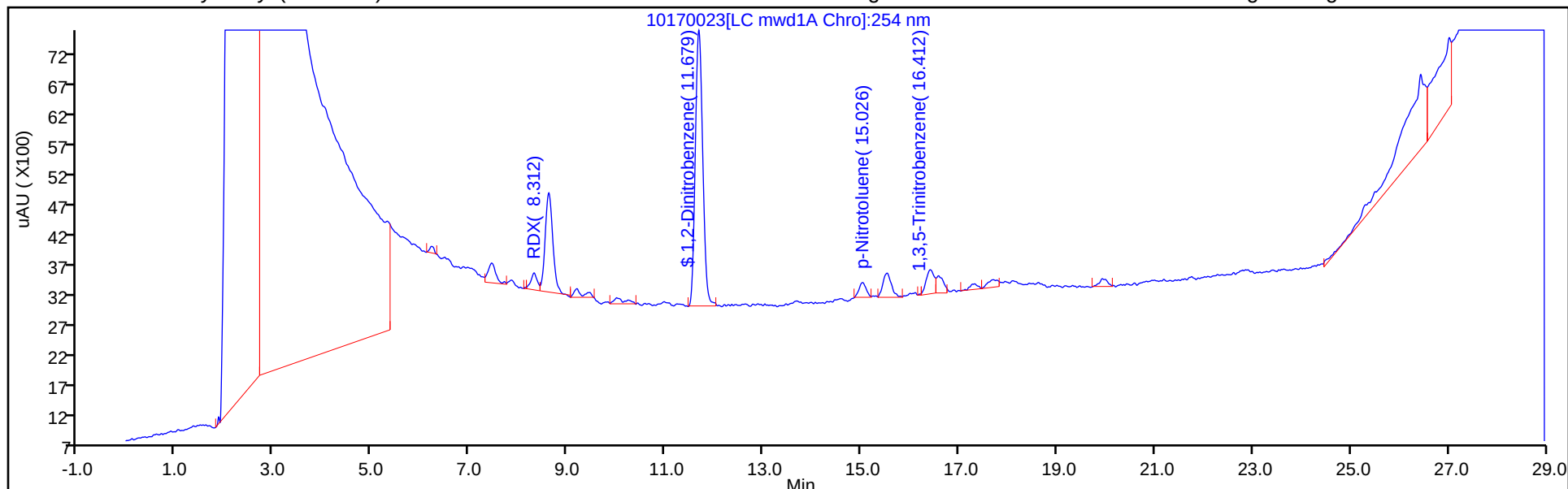
ALS Bottle#: 23

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

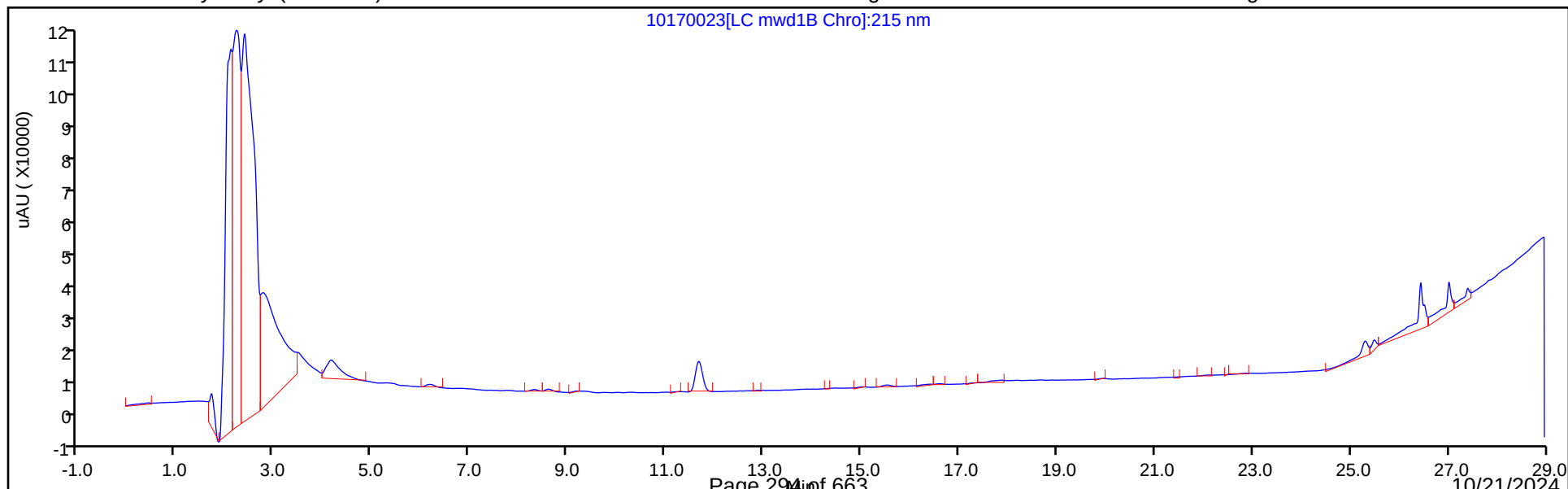
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Lims ID: 280-197842-A-8-A
Client ID: WBGmw-018-240901-GW
Sample Type: Client
Inject. Date: 18-Oct-2024 01:13:49 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X5
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

First Level Reviewer: LV5D

Date: 18-Oct-2024 12:30:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1824	91.19

Eurofins Denver

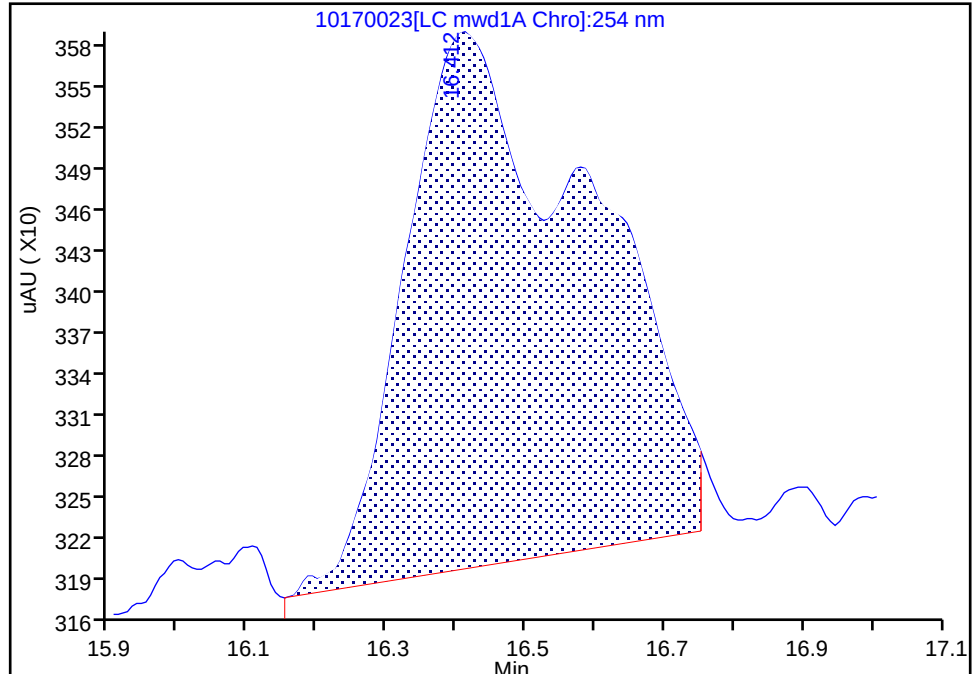
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Injection Date: 18-Oct-2024 01:13:49 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

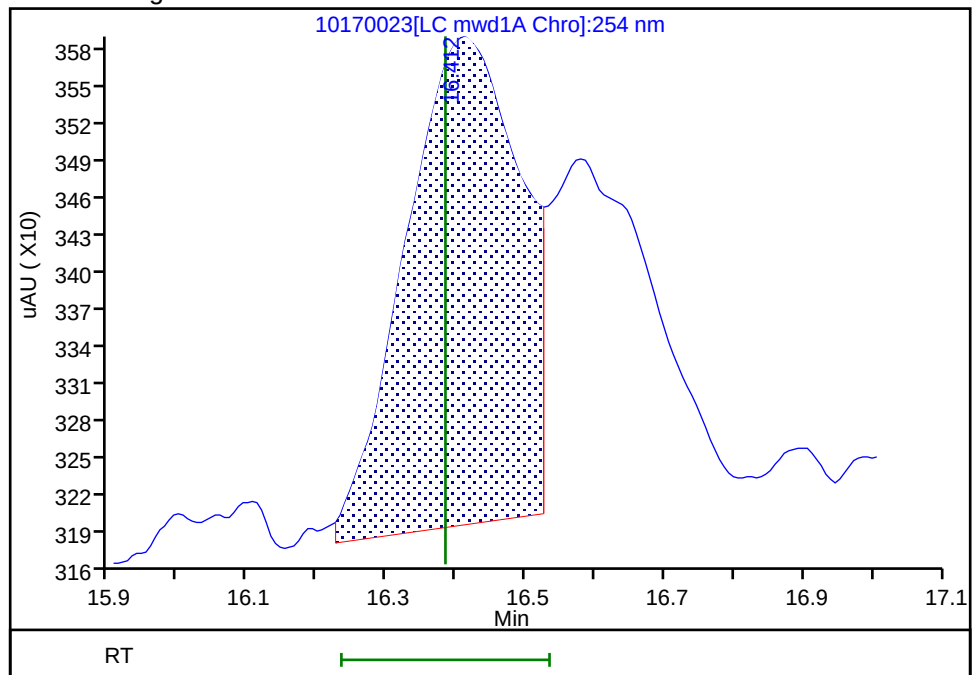
RT: 16.41
Area: 7298
Amount: 0.017221
Amount Units: ug/ml

Processing Integration Results



RT: 16.41
Area: 4512
Amount: 0.010647
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:30:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

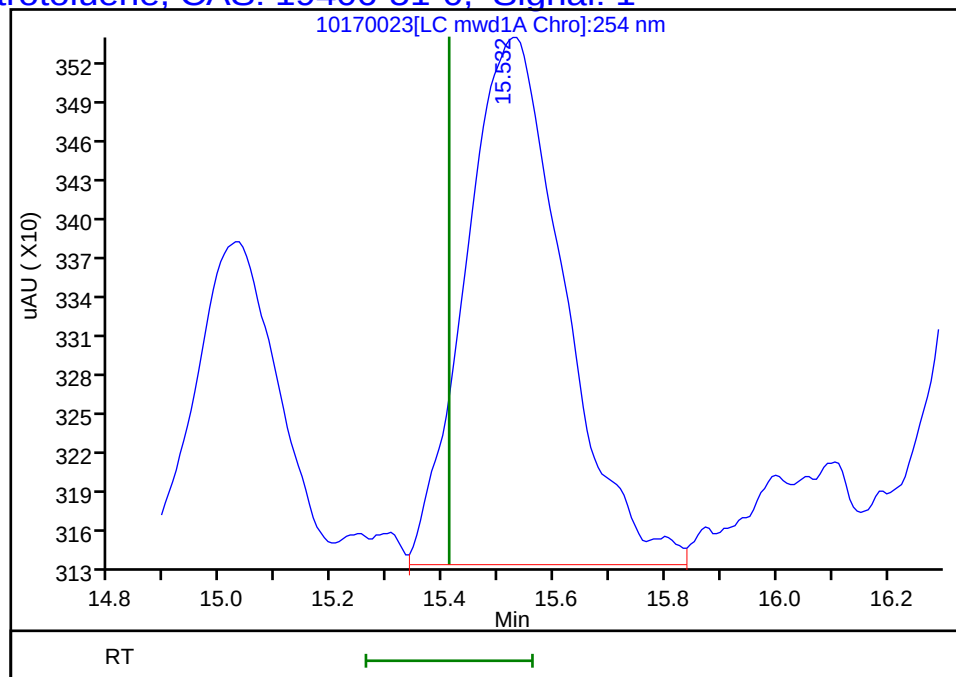
Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Injection Date: 18-Oct-2024 01:13:49 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 15.53
Response: 4878
Amount: 0.017510



Reviewer: LV5D, 18-Oct-2024 12:30:35

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

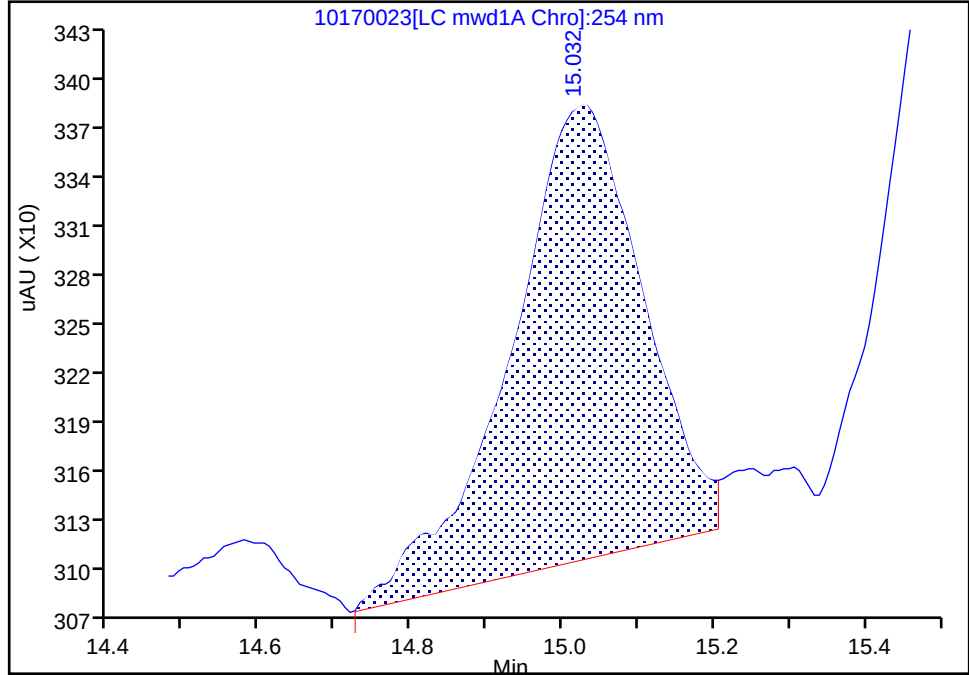
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Injection Date: 18-Oct-2024 01:13:49 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

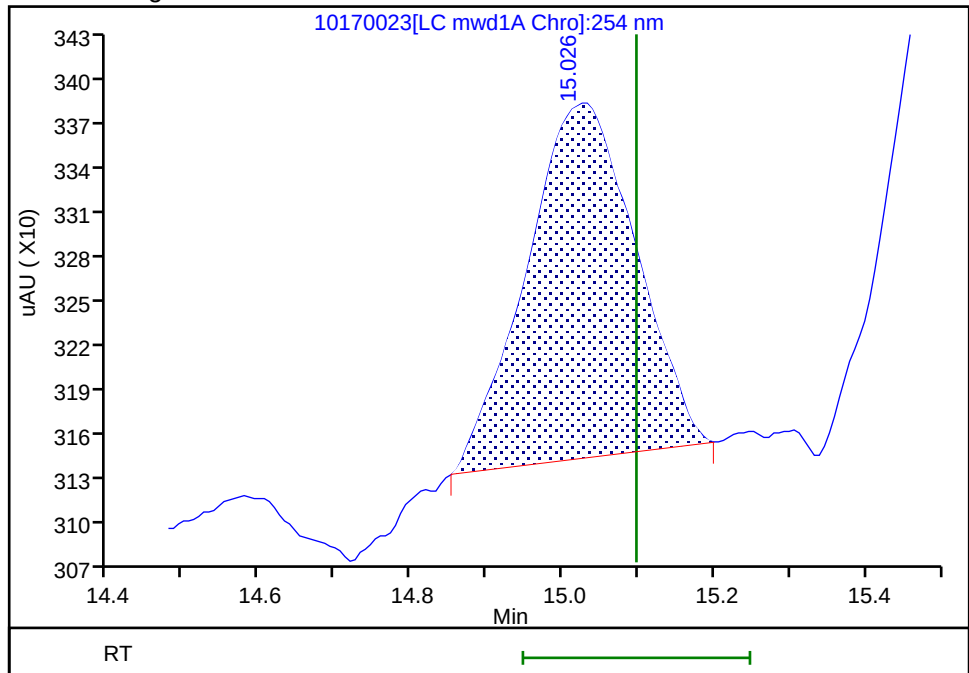
RT: 15.03
Area: 3341
Amount: 0.015784
Amount Units: ug/ml

Processing Integration Results



RT: 15.03
Area: 2383
Amount: 0.011258
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:30:26 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

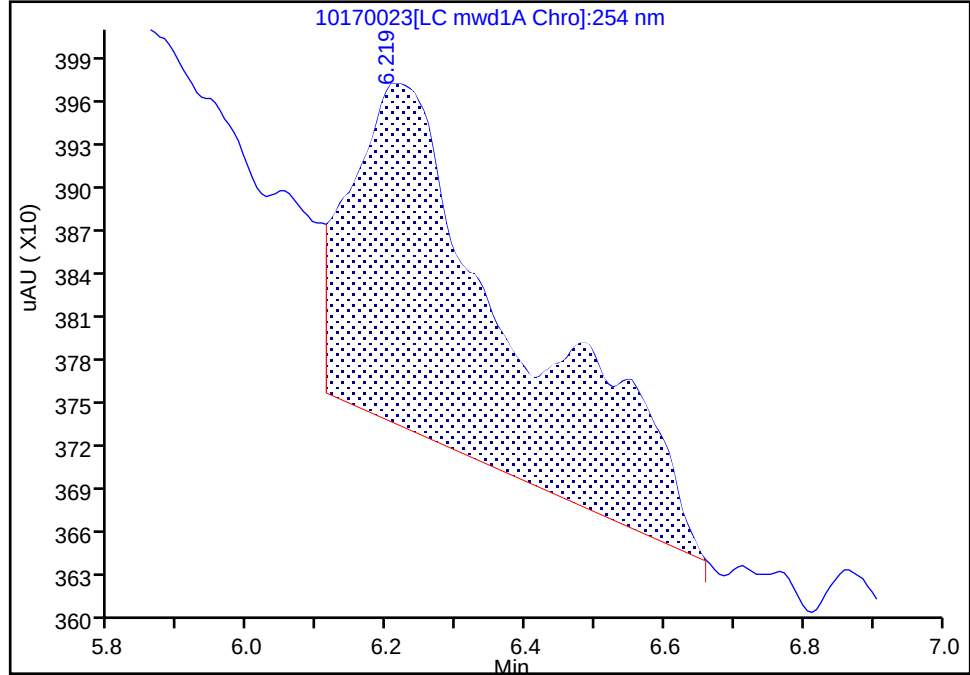
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Injection Date: 18-Oct-2024 01:13:49 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

5 HMX, CAS: 2691-41-0

Signal: 1

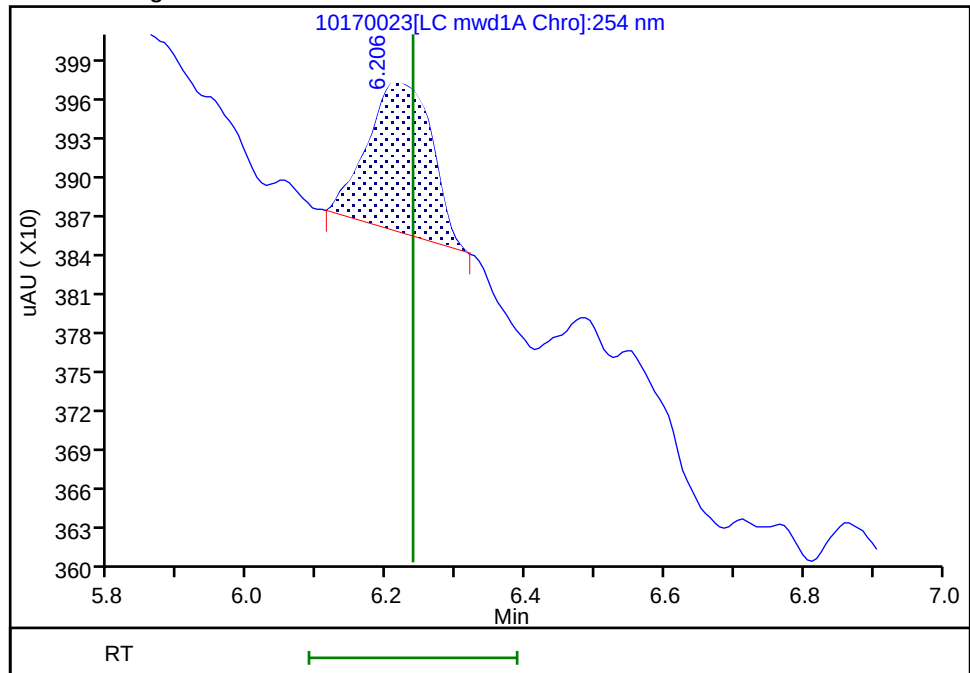
RT: 6.22
Area: 3907
Amount: 0.021665
Amount Units: ug/ml

Processing Integration Results



RT: 6.21
Area: 733
Amount: 0.004065
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:30:05 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

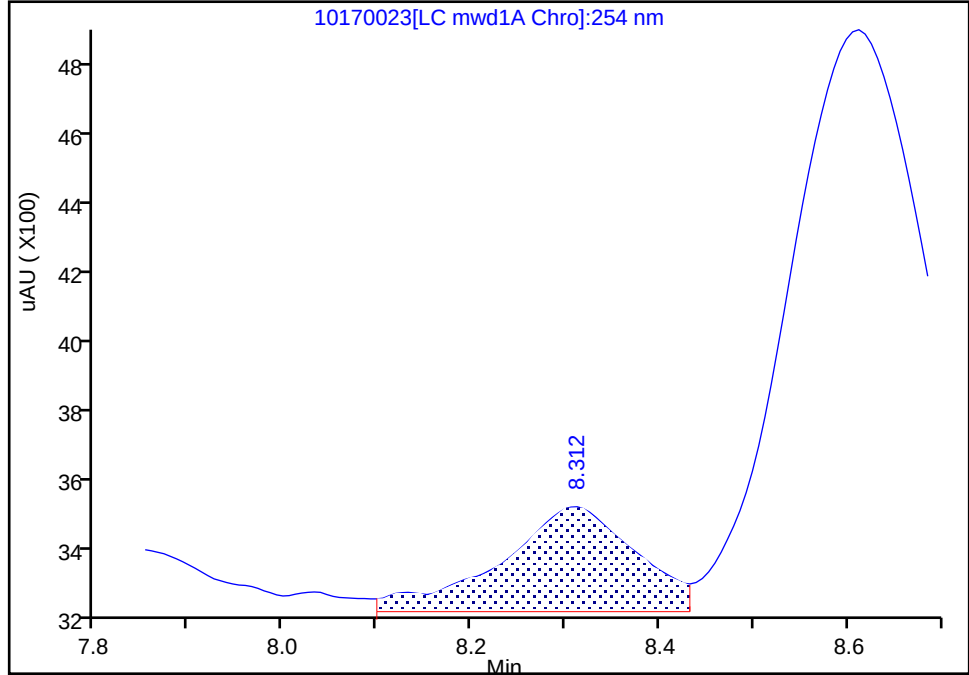
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170023.D
Injection Date: 18-Oct-2024 01:13:49 Instrument ID: CHHPLC_X5
Lims ID: 280-197842-A-8-A Lab Sample ID: 280-197842-8
Client ID: WBGmw-018-240901-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

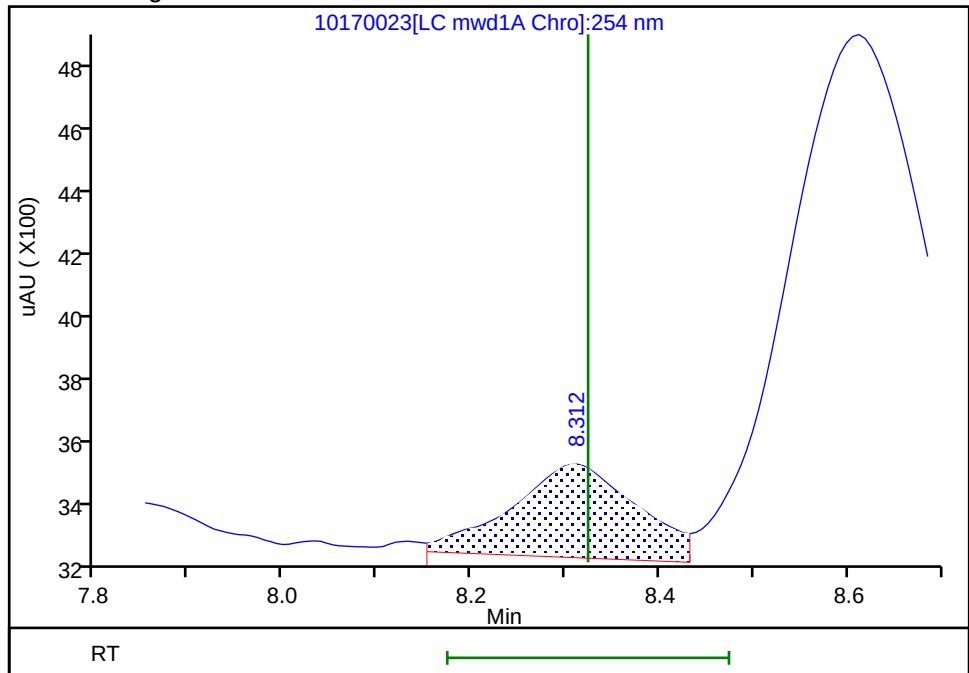
RT: 8.31
Area: 2922
Amount: 0.013260
Amount Units: ug/ml

Processing Integration Results



RT: 8.31
Area: 2588
Amount: 0.011745
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 18-Oct-2024 12:30:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-017-240901-GW</u>	Lab Sample ID: <u>280-197842-9</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160048.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 13:37</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>478.4 (mL)</u>	Date Analyzed: <u>10/17/2024 06:27</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.47
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160048.D
Lims ID: 280-197842-B-9-A
Client ID: WBGmw-017-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 06:27:58 ALS Bottle#: 48 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-B-9-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:53:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.567			ND	U
8 RDX	1		7.494			ND	
\$ 10 1,2-Dinitrobenzene	1	8.361	8.360	0.001	25252	0.1936	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:48

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160048.d

Injection Date: 17-Oct-2024 06:27:58

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-B-9-A

Lab Sample ID: 280-197842-9

Worklist Smp#: 48

Client ID: WBGmw-017-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

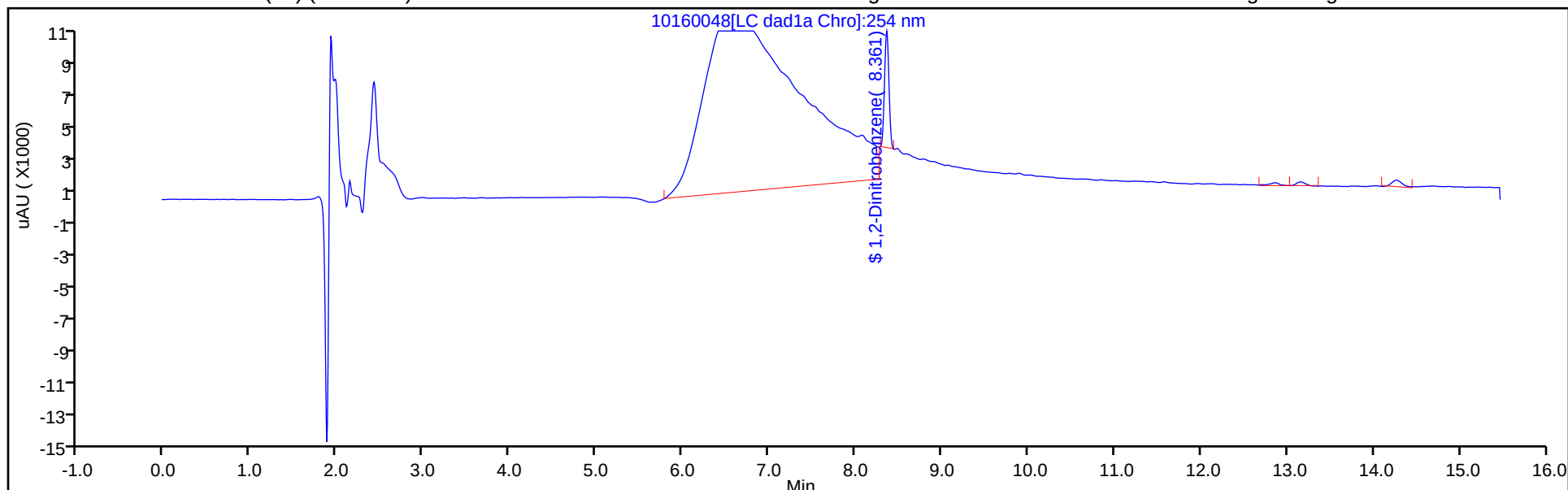
ALS Bottle#: 48

Method: 8330_X3

Limit Group: GCSV - 8330

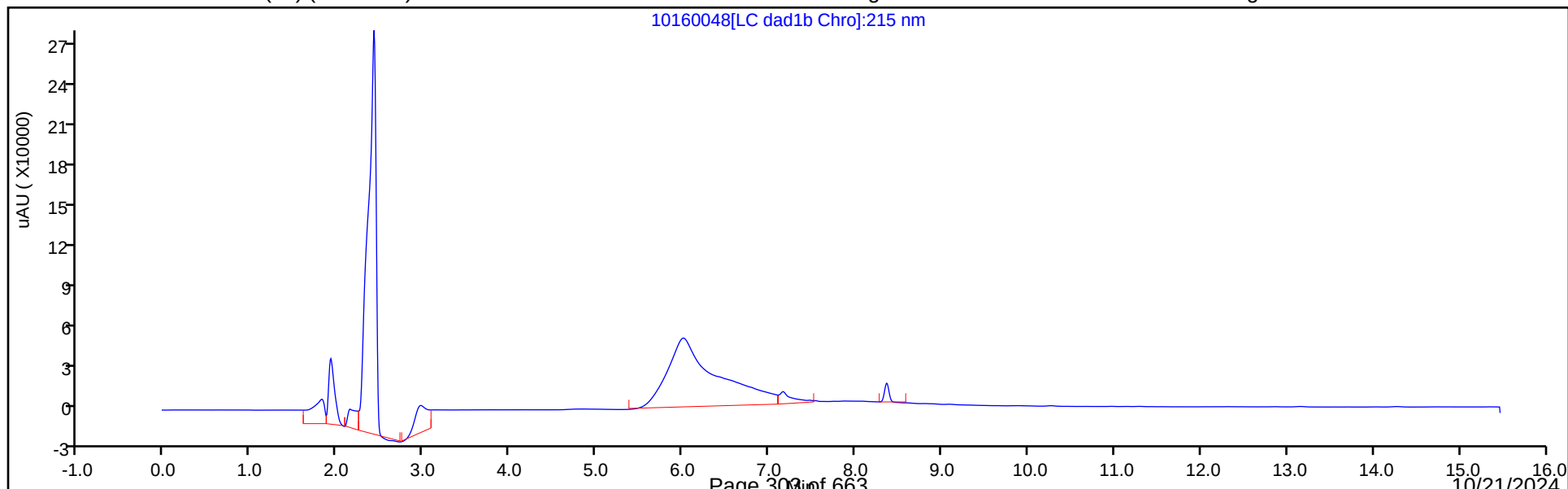
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160048.D
Lims ID: 280-197842-B-9-A
Client ID: WBGmw-017-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 06:27:58 ALS Bottle#: 48 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-B-9-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:53:04

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1936	96.82

Eurofins Denver

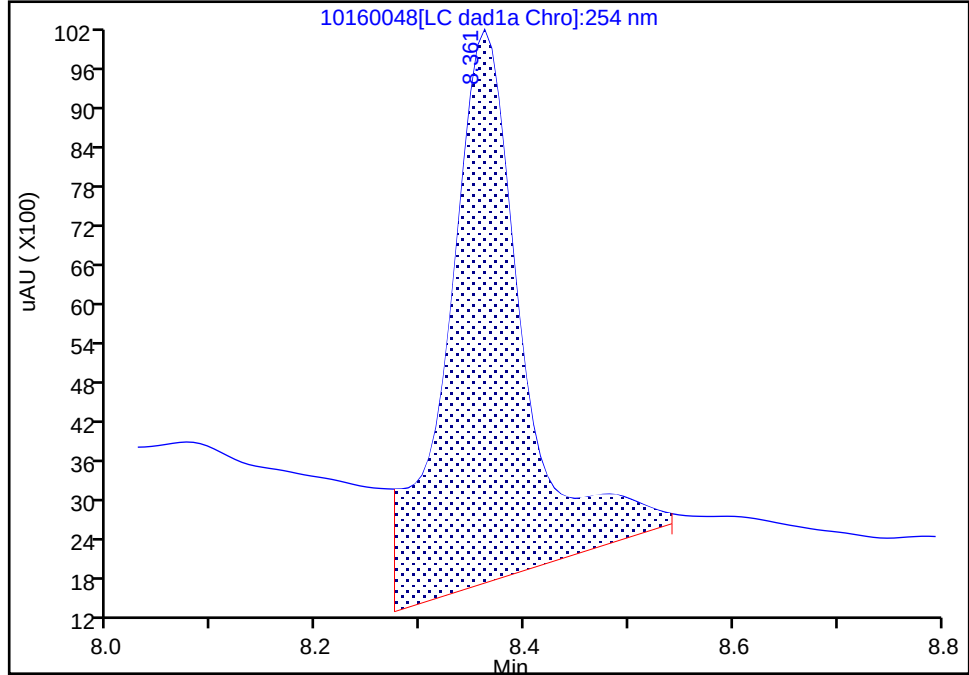
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160048.d
Injection Date: 17-Oct-2024 06:27:58 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-B-9-A Lab Sample ID: 280-197842-9
Client ID: WBGmw-017-240901-GW
Operator ID: JZ ALS Bottle#: 48 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

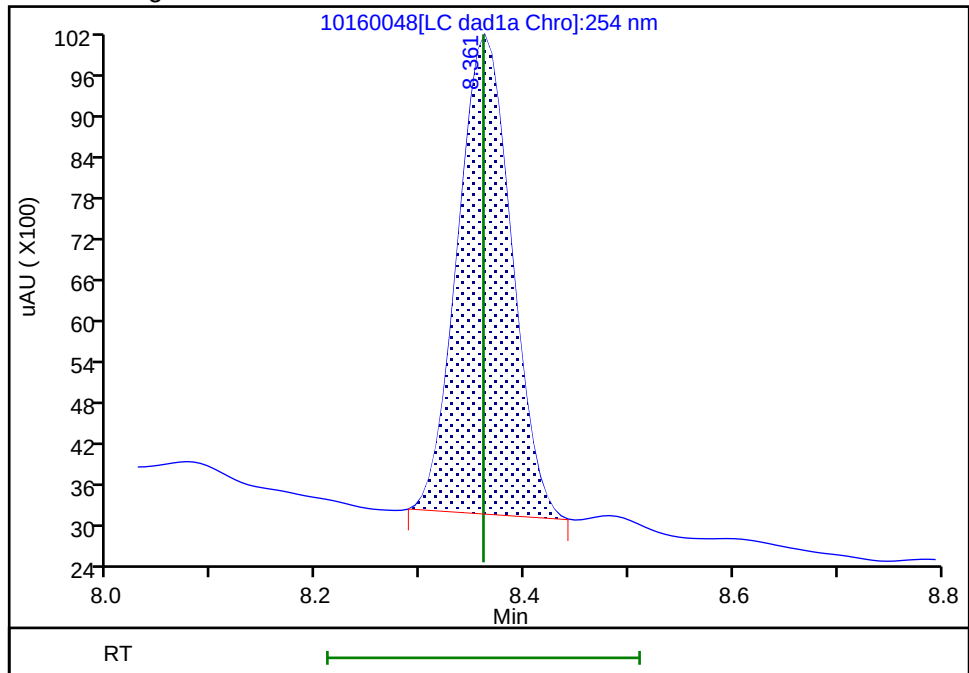
RT: 8.36
Area: 42820
Amount: 0.328350
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 25252
Amount: 0.193636
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:53:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160048.d
Injection Date: 17-Oct-2024 06:27:58 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-B-9-A Lab Sample ID: 280-197842-9
Client ID: WBGmw-017-240901-GW
Operator ID: JZ
Injection Vol: 100.0 ul
Method: 8330_X3

ALS Bottle#: 48 Worklist Smp#: 48

Dil. Factor: 1.0000

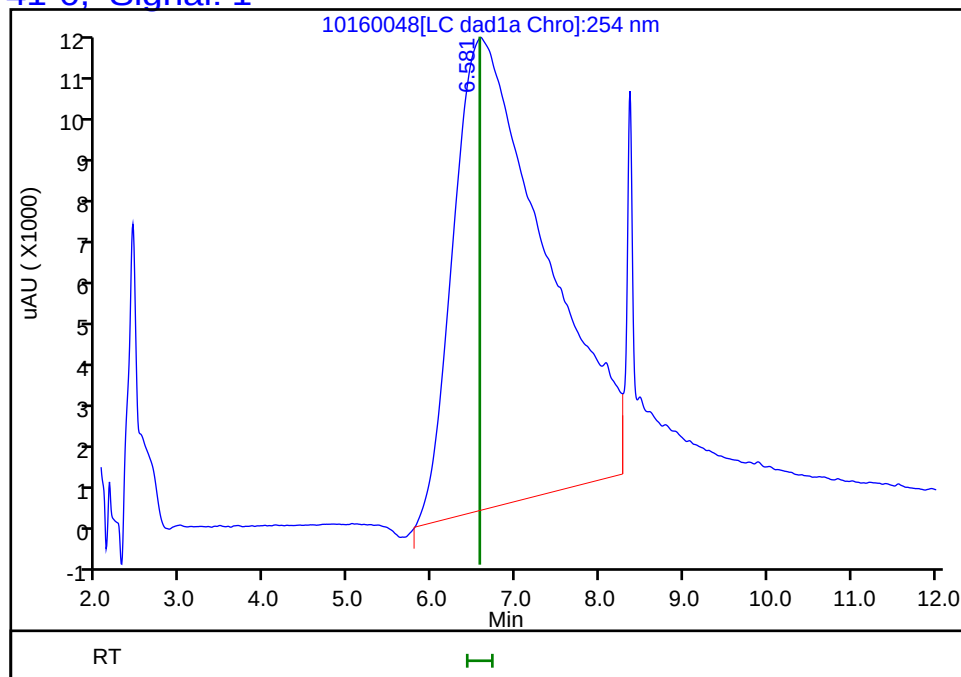
Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.58
Response: 832258
Amount: 8.610789



Reviewer: LV5D, 17-Oct-2024 11:53:04

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: <u>WBGmw-014-240901-GW</u>	Lab Sample ID: <u>280-197842-10</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160050.D</u>
Analysis Method: <u>8330B</u>	Date Collected: <u>10/09/2024 14:28</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>482.8 (mL)</u>	Date Analyzed: <u>10/17/2024 07:11</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160050.D
Lims ID: 280-197842-B-10-A
Client ID: WBGmw-014-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 07:11:48 ALS Bottle#: 50 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-B-10-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:49 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:53:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.567			ND	U
8 RDX	1		7.494			ND	
\$ 10 1,2-Dinitrobenzene	1	8.361	8.360	0.001	24225	0.1858	M
11 1,3,5-Trinitrobenzene	1		8.467			ND	
12 1,3-Dinitrobenzene	1		9.020			ND	
13 Nitrobenzene	1		9.340			ND	
15 Tetryl	1		9.660			ND	
16 Nitroglycerin	2		10.107			ND	
17 2,4,6-Trinitrotoluene	1		10.460			ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620			ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853			ND	
20 2,6-Dinitrotoluene	1		10.987			ND	
21 2,4-Dinitrotoluene	1		11.140			ND	
22 o-Nitrotoluene	1		11.833			ND	
23 p-Nitrotoluene	1		12.200			ND	
24 m-Nitrotoluene	1		12.693			ND	
25 PETN	2		13.753			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:49

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160050.d

Injection Date: 17-Oct-2024 07:11:48

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-197842-B-10-A

Lab Sample ID: 280-197842-10

Worklist Smp#: 50

Client ID: WBGmw-014-240901-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

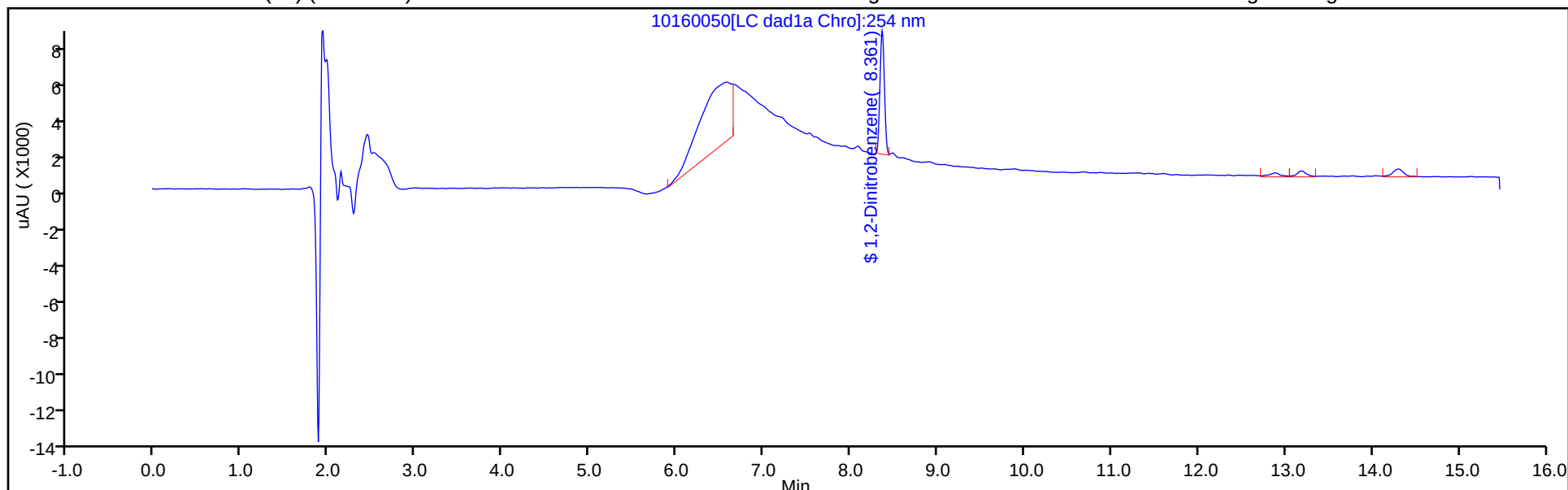
ALS Bottle#: 50

Method: 8330_X3

Limit Group: GCSV - 8330

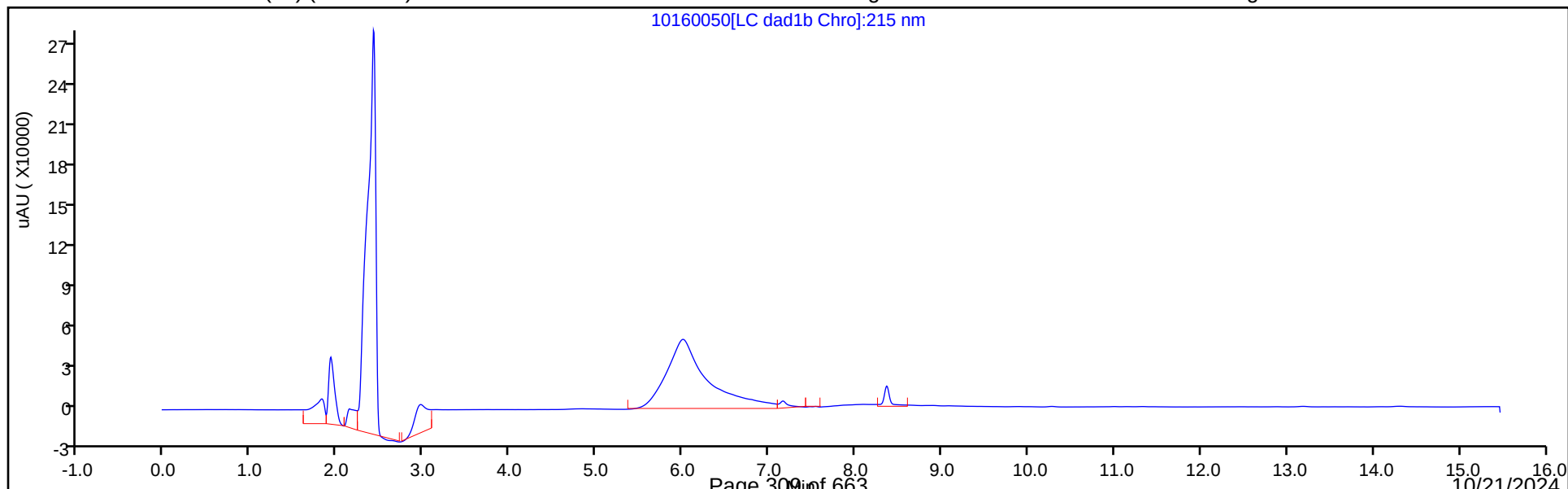
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160050.D
Lims ID: 280-197842-B-10-A
Client ID: WBGmw-014-240901-GW
Sample Type: Client
Inject. Date: 17-Oct-2024 07:11:48 ALS Bottle#: 50 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-B-10-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:49 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:53:19

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1858	92.88

Eurofins Denver

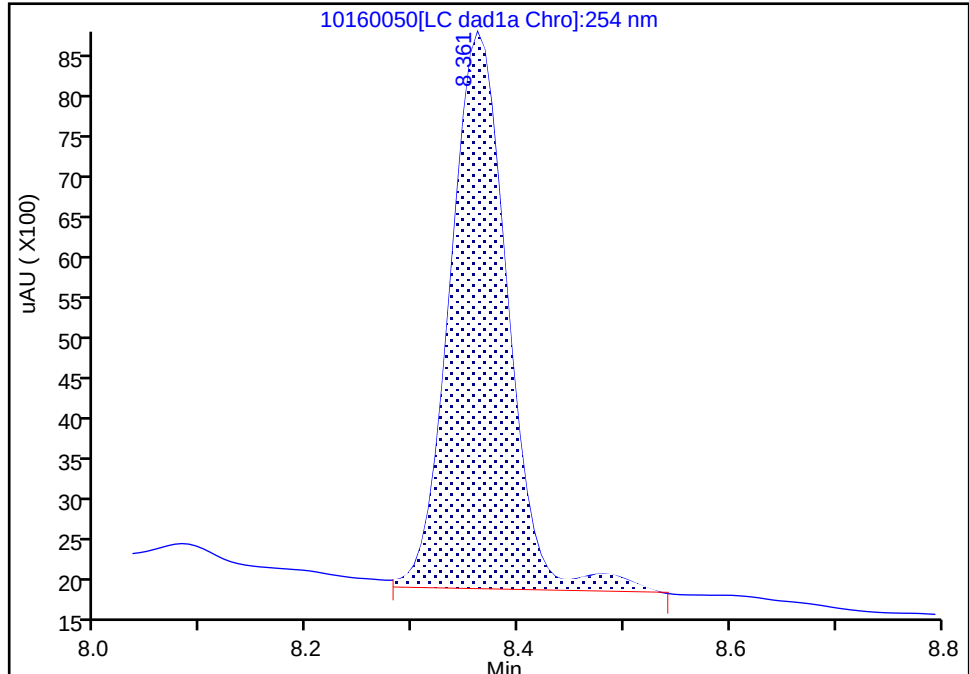
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160050.d
Injection Date: 17-Oct-2024 07:11:48 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-B-10-A Lab Sample ID: 280-197842-10
Client ID: WBGmw-014-240901-GW
Operator ID: JZ ALS Bottle#: 50 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

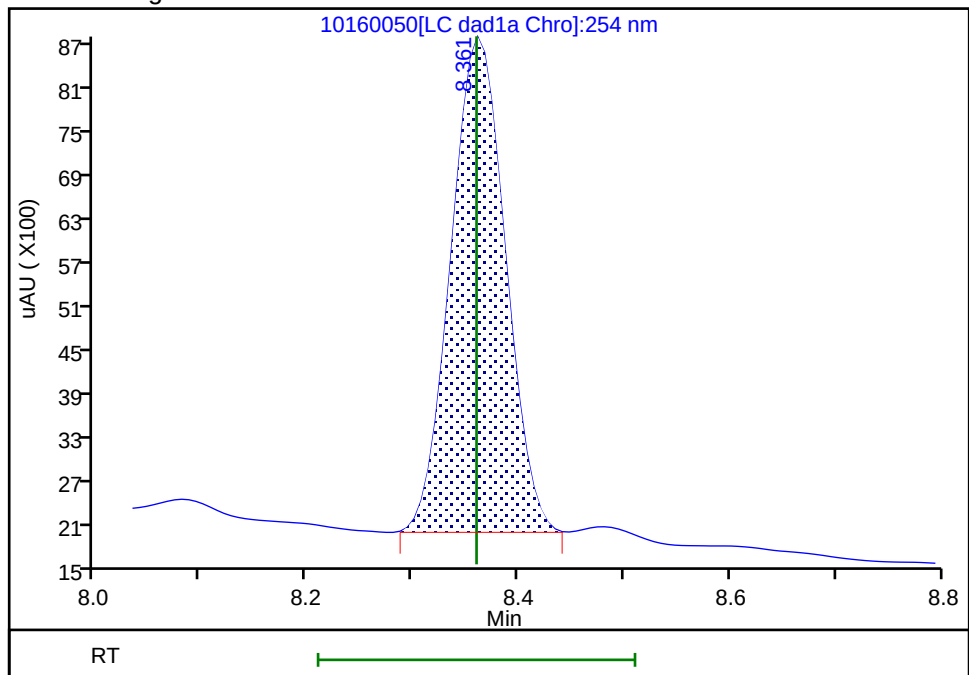
RT: 8.36
Area: 26232
Amount: 0.201151
Amount Units: ug/mL

Processing Integration Results



RT: 8.36
Area: 24225
Amount: 0.185761
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:53:19 -06:00:00 (UTC)

Audit Action: Manually Integrated

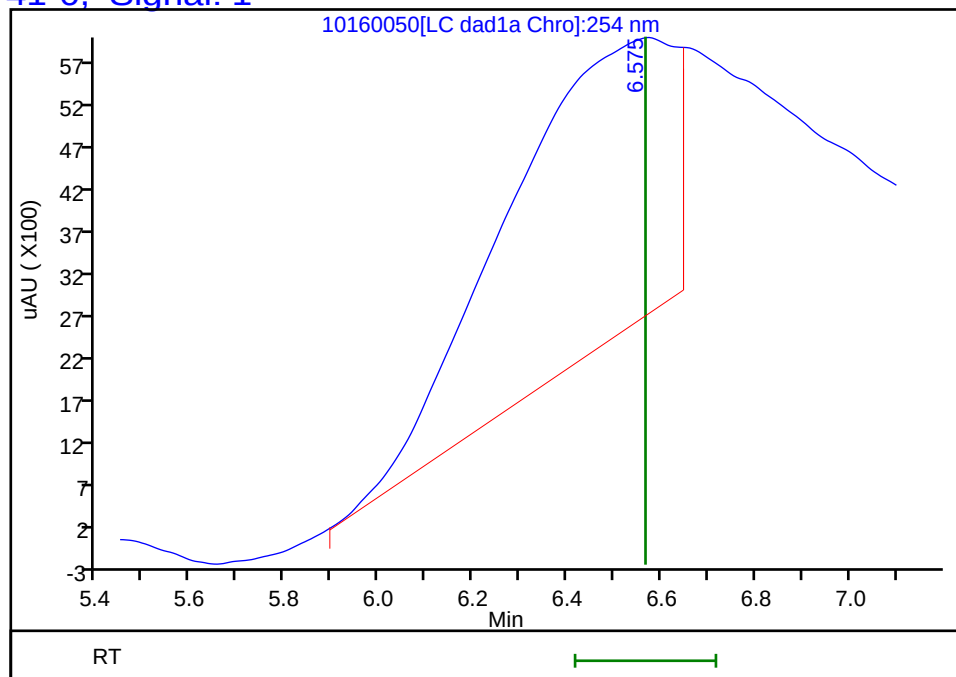
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160050.d
Injection Date: 17-Oct-2024 07:11:48 Instrument ID: CHHPLC_X3
Lims ID: 280-197842-B-10-A Lab Sample ID: 280-197842-10
Client ID: WBGmw-014-240901-GW
Operator ID: JZ ALS Bottle#: 50 Worklist Smp#: 50
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

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.57
Response: 87557
Amount: 0.905891



Reviewer: LV5D, 17-Oct-2024 11:53:19

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 Denver Job No.: 280-197842-1 Analy Batch No.: 669870
SDG No.: _____
Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-669870/19	10040019.D
Level 2	IC 280-669870/18	10040018.D
Level 3	IC 280-669870/17	10040017.D
Level 4	IC 280-669870/16	10040016.D
Level 5	IC 280-669870/15	10040015.D
Level 6	IC 280-669870/14	10040014.D
Level 7	IC 280-669870/13	10040013.D
Level 8	IC 280-669870/12	10040012.D
Level 9	IC 280-669870/11	10040011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	6.438	6.433	6.434	6.437	6.436	6.434	6.436	6.438	6.428		6.337 - 6.537	6.435
HMX	6.571	6.573	6.574	6.577	6.576	6.567	6.576	6.571	6.568		6.427 - 6.727	6.573
DNX	6.751	6.747	6.747	6.751	6.749	6.747	6.749	6.751	6.741		6.651 - 6.851	6.748
MXN	7.151	7.153	7.154	7.151	7.156	7.154	7.156	7.151	7.141		7.001 - 7.301	7.152
RDX	7.505	7.507	7.507	7.511	7.509	7.507	7.509	7.505	7.501		7.361 - 7.661	7.507
Picric acid	+++++	7.940	7.941	7.937	7.936	7.927	7.916	7.905	7.868		7.787 - 8.087	7.921
1,3,5-Trinitrobenzene	8.471	8.473	8.474	8.477	8.476	8.480	8.476	8.478	8.468		8.327 - 8.627	8.475
1,3-Dinitrobenzene	9.031	9.033	9.034	9.037	9.036	9.047	9.036	9.038	9.028		8.887 - 9.187	9.036
Nitrobenzene	9.351	9.353	9.354	9.357	9.356	9.367	9.356	9.358	9.341		9.207 - 9.507	9.355
3,5-Dinitroaniline	9.558	9.560	9.561	9.564	9.563	9.573	9.562	9.558	9.548		9.414 - 9.714	9.561
Tetryl	9.678	9.680	9.681	9.684	9.683	9.700	9.682	9.685	9.668		9.534 - 9.834	9.682
Nitroglycerin	10.124	10.127	10.121	10.124	10.123	10.140	10.129	10.125	10.108		9.974 - 10.274	10.125
2,4,6-Trinitrotoluene	10.478	10.473	10.474	10.477	10.476	10.493	10.482	10.478	10.468		10.377 - 10.577	10.478
4-Amino-2,6-dinitrotoluene	10.638	10.640	10.634	10.637	10.636	10.653	10.642	10.631	10.621		10.537 - 10.737	10.637
2-Amino-4,6-dinitrotoluene	10.864	10.867	10.861	10.864	10.863	10.880	10.869	10.865	10.848		10.764 - 10.964	10.865
2,6-Dinitrotoluene	11.004	11.007	11.001	11.004	11.003	11.020	11.009	11.005	10.988		10.904 - 11.104	11.005
2,4-Dinitrotoluene	11.151	11.153	11.154	11.150	11.149	11.167	11.156	11.151	11.134		11.050 - 11.250	11.152
2-Nitrotoluene	11.844	11.847	11.847	11.850	11.849	11.867	11.862	11.851	11.834		11.700 - 12.000	11.850
4-Nitrotoluene	12.218	12.220	12.221	12.217	12.223	12.240	12.229	12.218	12.208		12.067 - 12.367	12.222
3-Nitrotoluene	12.718	12.713	12.721	12.724	12.723	12.740	12.736	12.725	12.708		12.574 - 12.874	12.723
PETN	13.784	13.787	13.794	13.797	13.796	13.827	13.822	13.805	13.794		13.647 - 13.947	13.801
1,2-Dinitrobenzene	8.371	8.373	8.374	8.377	8.376	8.380	8.376	8.371	8.368		8.227 - 8.527	8.374

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 669870
SDG No.: _____
Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-669870/19	10040019.D
Level 2	IC 280-669870/18	10040018.D
Level 3	IC 280-669870/17	10040017.D
Level 4	IC 280-669870/16	10040016.D
Level 5	IC 280-669870/15	10040015.D
Level 6	IC 280-669870/14	10040014.D
Level 7	IC 280-669870/13	10040013.D
Level 8	IC 280-669870/12	10040012.D
Level 9	IC 280-669870/11	10040011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	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								
TNX	194516 207358 206104	200399 202293	206720 203873	202742 203696	Ave		203077.88 7				1.9		20.0			
HMX	93000 97508 95522	106250 97445	99580 96131	87750 96690	Ave		96652.936 5				5.1		20.0			
DNX	140460 150134 150243	140060 149128	146114 149306	141349 147581	Ave		146041.71 5				2.9		20.0			
MNX	139160 134612 134910	126735 131392	131962 133087	131422 133128	Ave		132934.34 8				2.5		20.0			
RDX	126400 106776 105154	104900 106223	107720 104480	107730 106956	Lin2	173.49829 2	104832.25 7							0.9990		0.9900
Picric acid	++++ 75344 74908	77950 75140	76140 74266	73910 75756	Ave		75426.764 3				1.7		20.0			
1,3,5-Trinitrobenzene	220300 214216 215272	214050 212963	233920 212653	214070 218705	Ave		217349.77 3				3.1		20.0			
1,3-Dinitrobenzene	301200 294592 296094	302700 296218	301160 293594	296590 301939	Ave		298231.91 0				1.2		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 669870
SDG No.: _____
Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	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								
Nitrobenzene	203800 189692 194988	195200 192533	196020 191901	193600 198867	Ave		195177.92 5				2.1		20.0			
3,5-Dinitroaniline	223700 227780 235024	233250 231803	231220 229723	232920 238621	Lin2	-77.78784 7	233196.46 9							1.0000		0.9900
Tetryl	164200 169664 172761	155150 166958	171240 168961	171300 179110	Lin2	-117.3061 5	171283.72 6							0.9990		0.9900
Nitroglycerin	61210 65034 64690	60715 64271	64318 63656	63200 65375	Lin2	-403.2320 1	64455.873 6							1.0000		0.9900
2,4,6-Trinitrotoluene	225700 213288 217208	219100 214585	218880 212211	216850 217864	Ave		217298.49 2				1.8		20.0			
4-Amino-2,6-dinitrotoluene	209900 146676 143972	167850 143735	155020 144779	151470 148480	Lin2	625.42442 7	143718.94 0							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	202900 201384 207688	211200 199510	204980 198944	206120 208057	Ave		204531.47 6				2.0		20.0			
2,6-Dinitrotoluene	160000 139512 134291	146450 143753	146900 142416	143340 141490	Lin2	188.15461 4	140280.93 0							0.9990		0.9900
2,4-Dinitrotoluene	296800 287776 296269	296350 284400	286560 284846	297230 296080	Ave		291812.27 9				2.0		20.0			
2-Nitrotoluene	127300 124236 126481	120550 124605	129460 124796	124870 126917	Ave		125468.32 4				2.0		20.0			
4-Nitrotoluene	122900 107584 109290	117150 107470	113220 107763	106240 109373	Lin2	157.36641 0	107910.70 0							1.0000		0.9900
3-Nitrotoluene	159800 134928 138727	149600 135250	138940 134671	133450 138022	Lin2	249.90061 2	135119.43 4							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 669870

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	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								
PETN	70530 72744 73523	68860 72834	72696 72584	71766 74375	Ave		72212.329 2				2.3		20.0			
1,2-Dinitrobenzene	131500 129000 131478	126500 128563	135900 128147	132380 130220	Ave		130409.78 3				2.1		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 669870

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-669870/19	10040019.D
Level 2	IC 280-669870/18	10040018.D
Level 3	IC 280-669870/17	10040017.D
Level 4	IC 280-669870/16	10040016.D
Level 5	IC 280-669870/15	10040015.D
Level 6	IC 280-669870/14	10040014.D
Level 7	IC 280-669870/13	10040013.D
Level 8	IC 280-669870/12	10040012.D
Level 9	IC 280-669870/11	10040011.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 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	1951 81160	4020 143139	10367 204307	20335 516807	51995	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	930 38978	2125 67292	4979 96690	8775 238805	24377	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1406 59711	2804 104619	7313 147729	14149 375984	37571	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
MNX	Ave	1624 61334	2958 108719	7700 155360	15337 393599	39273	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
RDX	Lin2	1264 42489	2098 73136	5386 106956	10773 262885	26694	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	+++++ 30056	1559 51986	3807 75756	7391 187271	18836	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2203 85185	4281 148857	11696 218705	21407 538179	53554	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	3012 118487	6054 205516	15058 301939	29659 740236	73648	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	2038 77013	3904 134331	9801 198867	19360 487471	47423	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2237 92721	4665 160806	11561 238621	23292 587561	56945	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Lin2	1642 66783	3103 118273	8562 179110	17130 431903	42416	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Lin2	6121 257082	12143 445595	32159 653746	63200 1617250	162585	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2257 85834	4382 148548	10944 217864	21685 543020	53322	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	2099 57494	3357 101345	7751 148480	15147 359929	36669	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	2029	4224	10249	20612	50346	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 669870
SDG No.: _____
Instrument ID: CHHPLC_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/04/2024 16:59 Calibration End Date: 10/04/2024 19:55 Calibration ID: 98019

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
		79804	139261	208057	519220		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Lin2	1600	2929	7345	14334	34878	0.0100	0.0200	0.0500	0.100	0.250
		57501	99691	141490	335728		0.400	0.700	1.00	2.50	
2,4-Dinitrotoluene	Ave	2968	5927	14328	29723	71944	0.0100	0.0200	0.0500	0.100	0.250
		113760	199392	296080	740672		0.400	0.700	1.00	2.50	
2-Nitrotoluene	Ave	1273	2411	6473	12487	31059	0.0100	0.0200	0.0500	0.100	0.250
		49842	87357	126917	316203		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Lin2	1229	2343	5661	10624	26896	0.0100	0.0200	0.0500	0.100	0.250
		42988	75434	109373	273226		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Lin2	1598	2992	6947	13345	33732	0.0100	0.0200	0.0500	0.100	0.250
		54100	94270	138022	346817		0.400	0.700	1.00	2.50	
PETN	Ave	7053	13772	36348	71766	181859	0.100	0.200	0.500	1.00	2.50
		291336	508089	743747	1838063		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	1315	2530	6795	13238	32250	0.0100	0.0200	0.0500	0.100	0.250
		51425	89703	130220	328696		0.400	0.700	1.00	2.50	

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040011.D
 Lims ID: IC INT/DMT 9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 04-Oct-2024 16:59:29 ALS Bottle#: 11 Worklist Smp#: 11
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 9
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:10 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 04-Oct-2024 17:24:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.428	6.437	-0.009	516807	2.51	2.54	M
4 HMX	1	6.568	6.577	-0.009	238805	2.50	2.47	M
6 DNx	1	6.741	6.751	-0.010	375984	2.50	2.57	M
7 MNx	1	7.141	7.151	-0.010	393599	2.92	2.96	M
8 RDX	1	7.501	7.511	-0.010	262885	2.50	2.51	
9 2,4,6-Trinitrophenol	1	7.868	7.937	-0.069	187271	2.50	2.48	
\$ 10 1,2-Dinitrobenzene	1	8.368	8.377	-0.009	328696	2.50	2.52	
11 1,3,5-Trinitrobenzene	1	8.468	8.477	-0.009	538179	2.50	2.48	
12 1,3-Dinitrobenzene	1	9.028	9.037	-0.009	740236	2.50	2.48	
13 Nitrobenzene	1	9.341	9.357	-0.016	487471	2.50	2.50	
14 3,5-Dinitroaniline	1	9.548	9.564	-0.016	587561	2.50	2.52	
15 Tetryl	1	9.668	9.684	-0.016	431903	2.50	2.52	
16 Nitroglycerin	2	10.108	10.124	-0.016	1617250	25.0	25.1	M
17 2,4,6-Trinitrotoluene	1	10.468	10.477	-0.009	543020	2.50	2.50	
18 4-Amino-2,6-dinitrotoluene	1	10.621	10.637	-0.016	359929	2.50	2.50	
19 2-Amino-4,6-dinitrotoluene	1	10.848	10.864	-0.016	519220	2.50	2.54	
20 2,6-Dinitrotoluene	1	10.988	11.004	-0.016	335728	2.50	2.39	
21 2,4-Dinitrotoluene	1	11.134	11.150	-0.016	740672	2.50	2.54	
22 o-Nitrotoluene	1	11.834	11.850	-0.016	316203	2.50	2.52	
23 p-Nitrotoluene	1	12.208	12.217	-0.009	273226	2.50	2.53	
24 m-Nitrotoluene	1	12.708	12.724	-0.016	346817	2.50	2.56	
25 PETN	2	13.794	13.797	-0.003	1838063	25.0	25.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 250.00

Units: uL

8330 DMT_00018

Amount Added: 125.00

Units: uL

Report Date: 08-Oct-2024 13:19:10

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d

Injection Date: 04-Oct-2024 16:59:29

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 9

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

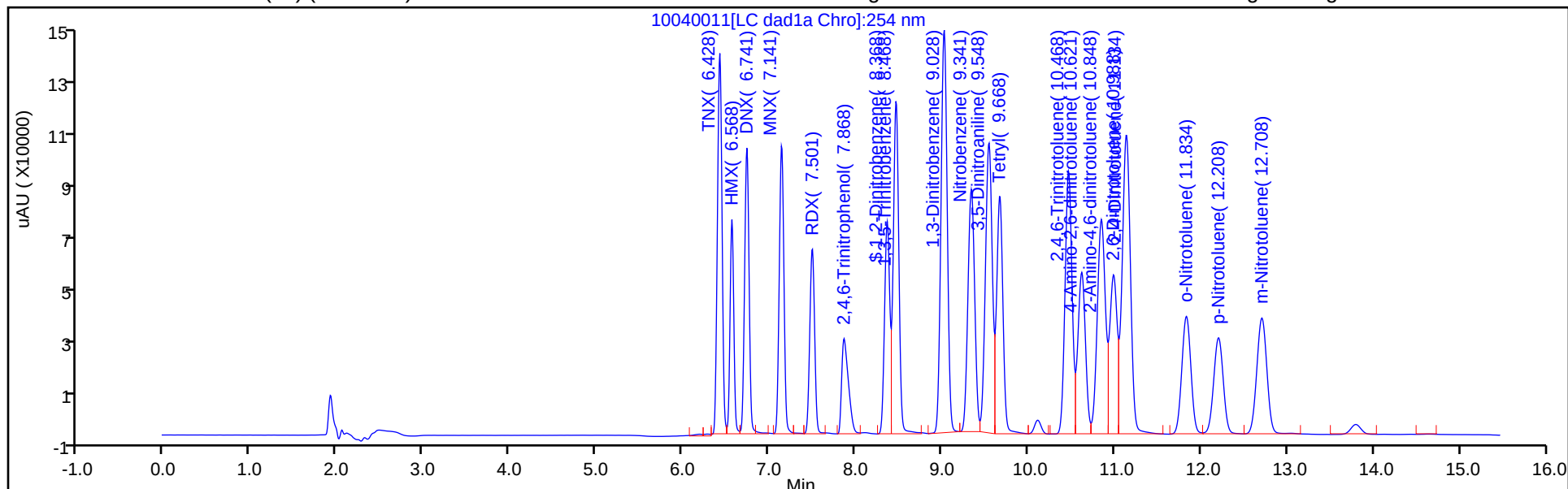
ALS Bottle#: 11

Method: 8330_X3

Limit Group: GCSV - 8330

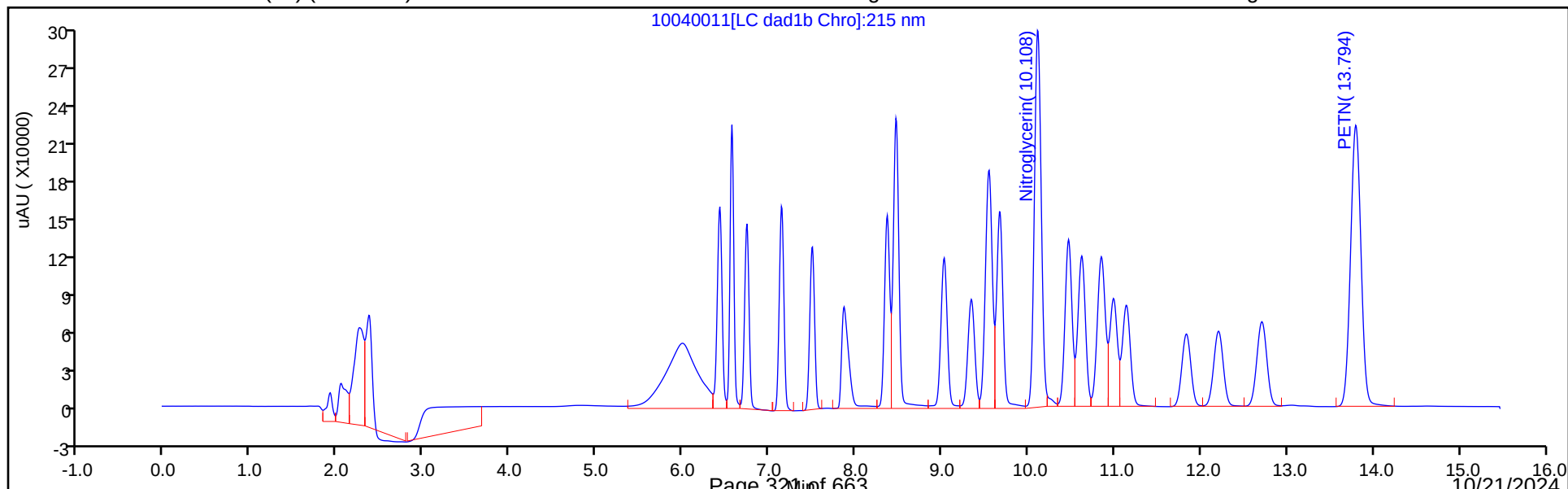
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

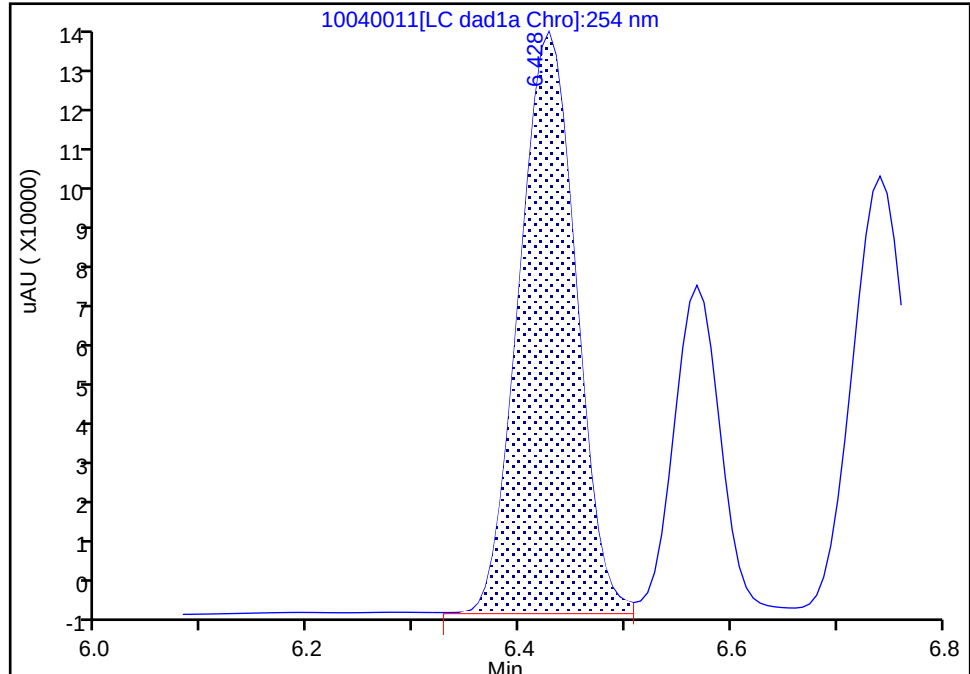
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d
Injection Date: 04-Oct-2024 16:59:29 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

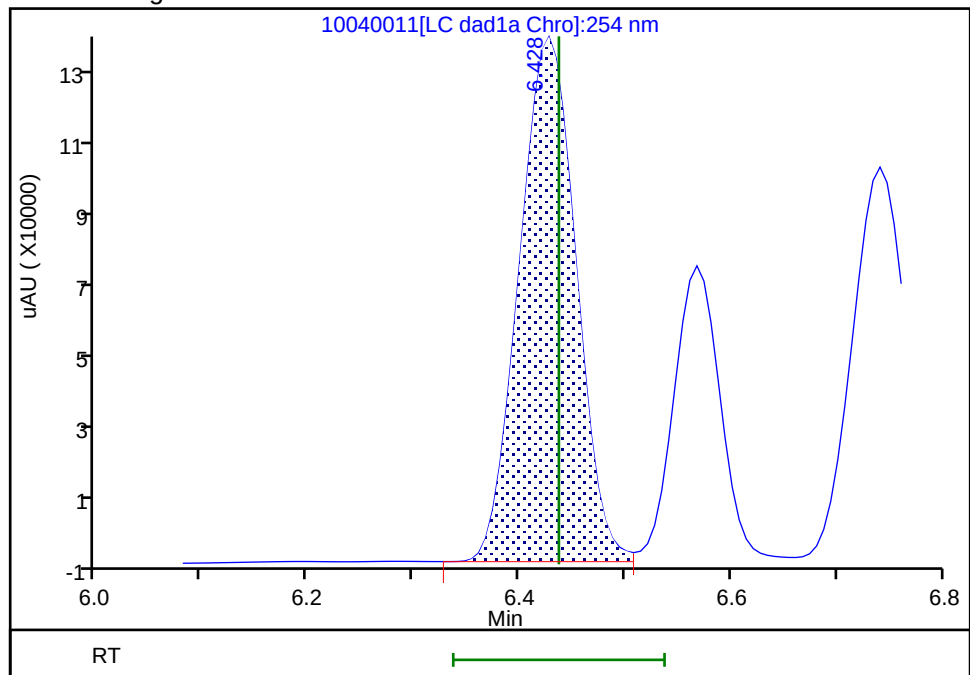
RT: 6.43
Area: 518719
Amount: 2.507500
Amount Units: ug/mL

Processing Integration Results



RT: 6.43
Area: 516807
Amount: 2.544871
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 04-Oct-2024 17:24:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d

Injection Date: 04-Oct-2024 16:59:29

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 9

Client ID:

Operator ID: JZ

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)

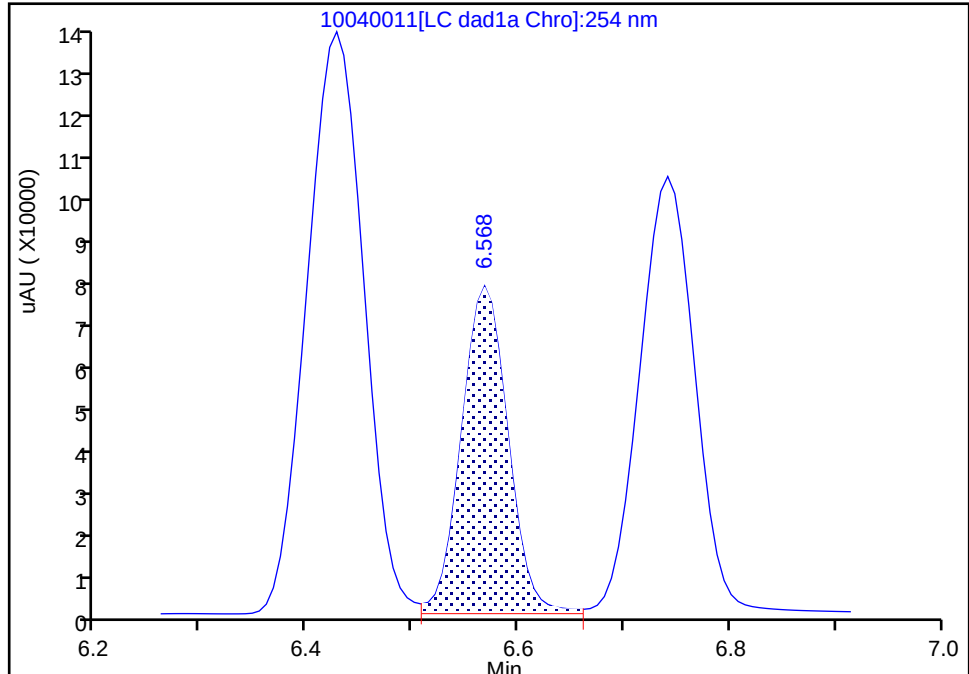
Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

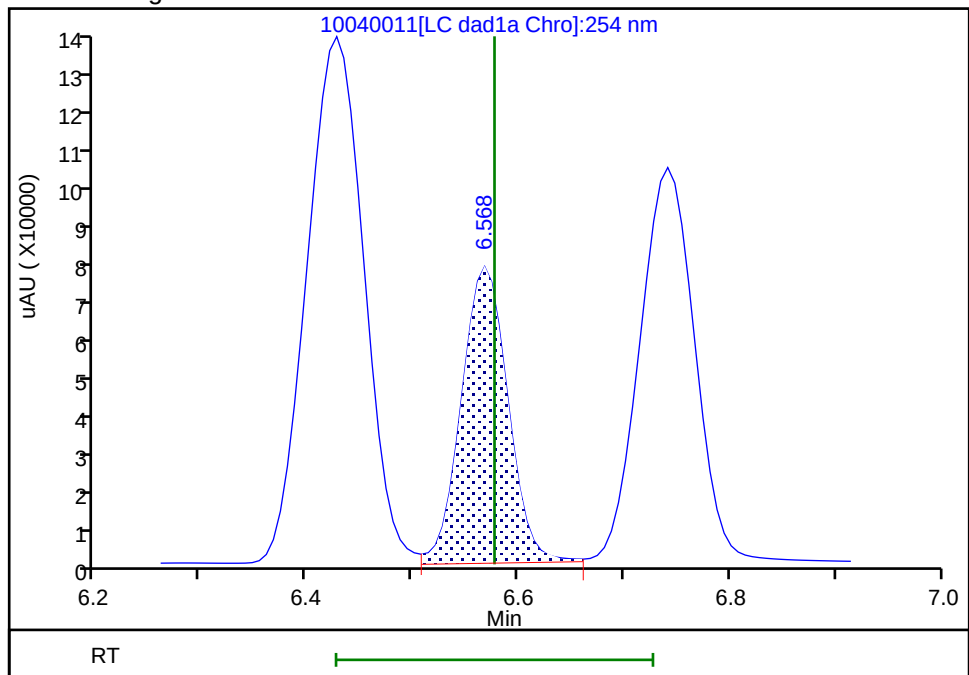
RT: 6.57
Area: 239730
Amount: 2.500000
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 238805
Amount: 2.470747
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 04-Oct-2024 17:24:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

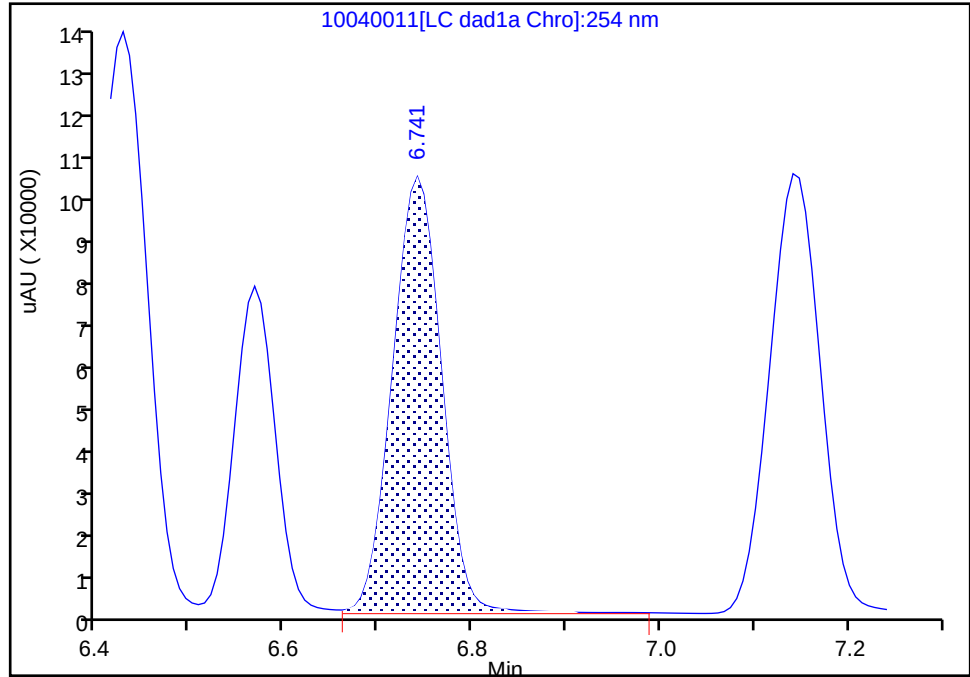
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d
Injection Date: 04-Oct-2024 16:59:29 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

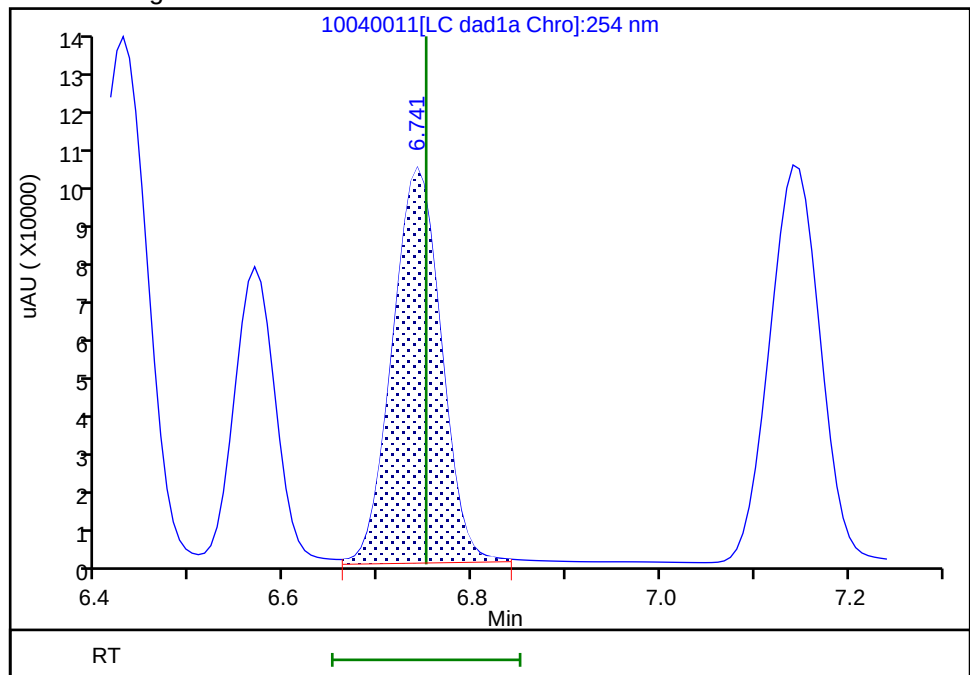
RT: 6.74
Area: 379790
Amount: 2.502500
Amount Units: ug/mL

Processing Integration Results



RT: 6.74
Area: 375984
Amount: 2.574497
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 04-Oct-2024 17:24:19 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

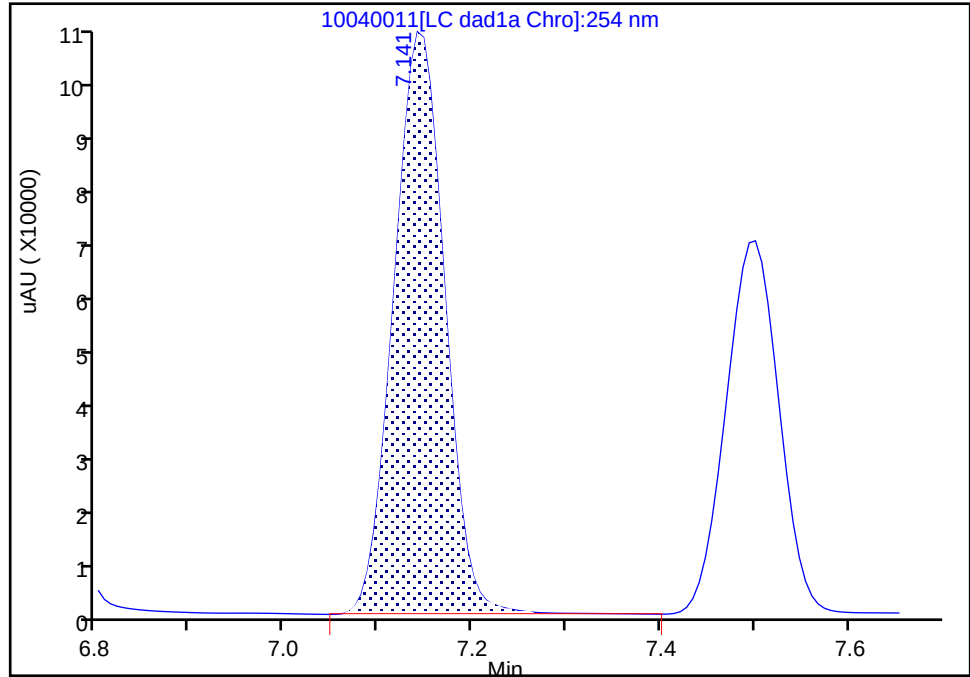
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d
Injection Date: 04-Oct-2024 16:59:29 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

7 MNX, CAS: 5755-27-1

Signal: 1

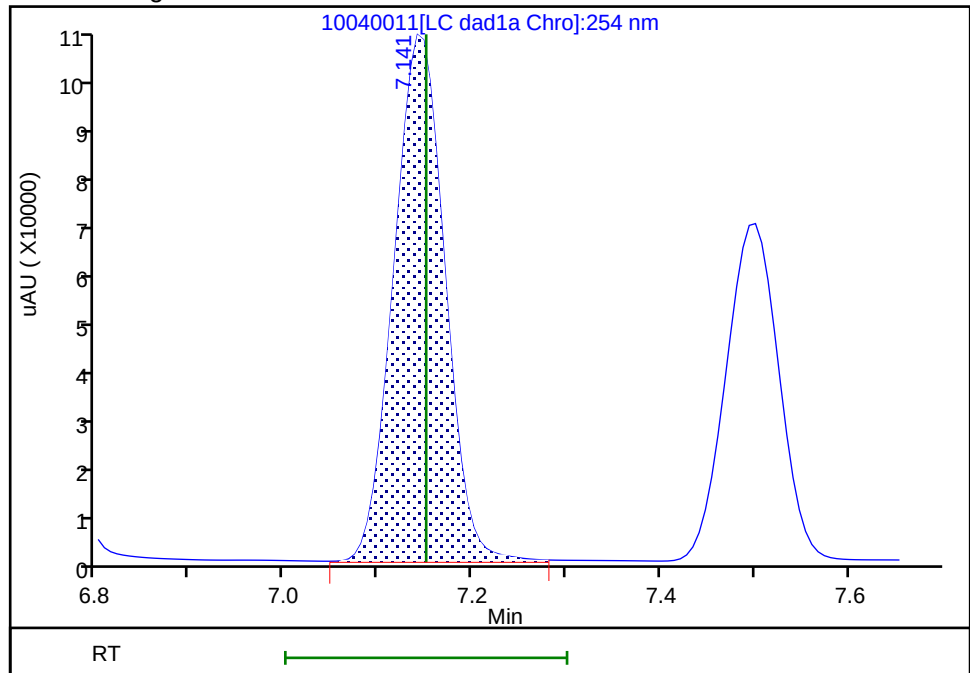
RT: 7.14
Area: 394458
Amount: 2.917500
Amount Units: ug/mL

Processing Integration Results



RT: 7.14
Area: 393599
Amount: 2.960853
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 04-Oct-2024 17:24:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

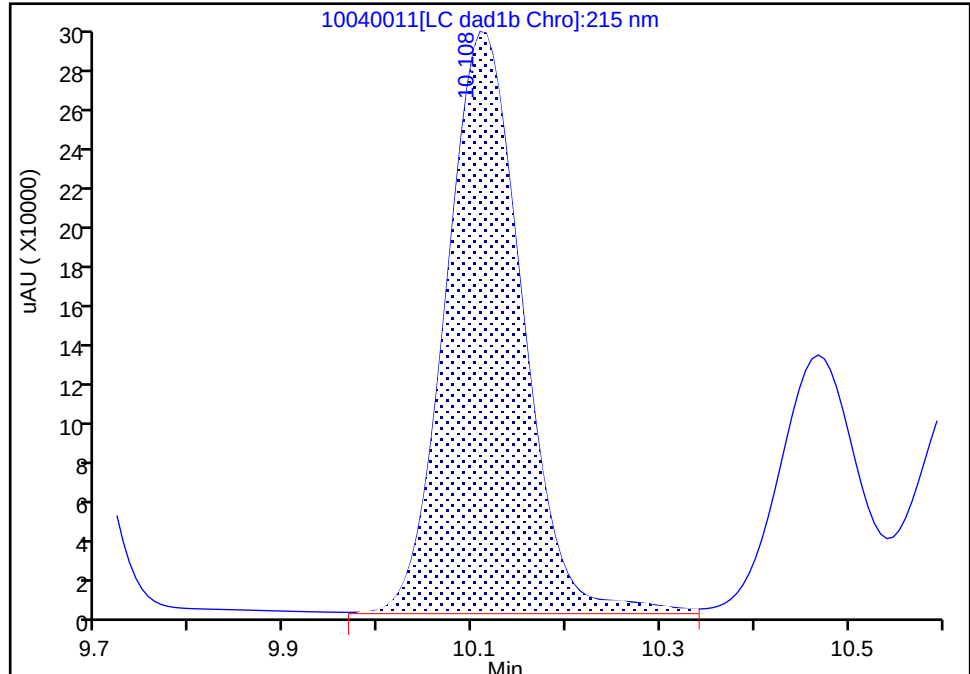
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040011.d
Injection Date: 04-Oct-2024 16:59:29 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

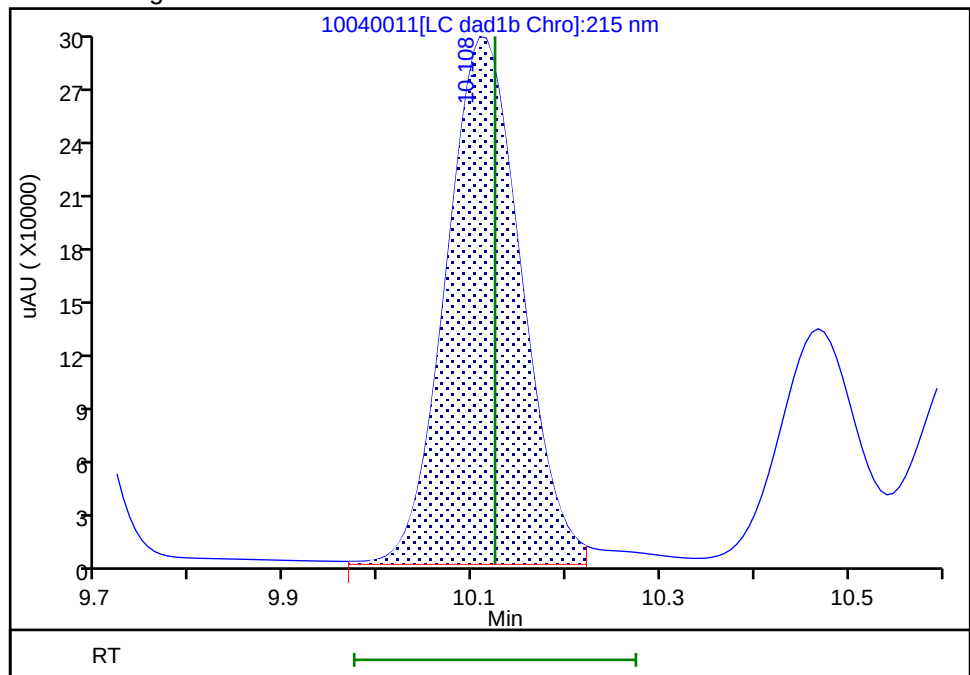
RT: 10.11
Area: 1655248
Amount: 23.821068
Amount Units: ug/mL

Processing Integration Results



RT: 10.11
Area: 1617250
Amount: 25.097065
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:08:47 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040012.D
 Lims ID: IC INT/DMT 8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 04-Oct-2024 17:21:25 ALS Bottle#: 12 Worklist Smp#: 12
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 8
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:12 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 12:59:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.438	6.437	0.001	204307	1.00	1.01	
4 HMX	1	6.571	6.577	-0.006	96690	1.00	1.00	M
6 DNx	1	6.751	6.751	0.000	147729	1.00	1.01	M
7 MNx	1	7.151	7.151	0.000	155360	1.17	1.17	
8 RDX	1	7.505	7.511	-0.006	106956	1.00	1.02	
9 2,4,6-Trinitrophenol	1	7.905	7.937	-0.032	75756	1.00	1.00	
\$ 10 1,2-Dinitrobenzene	1	8.371	8.377	-0.006	130220	1.00	1.00	
11 1,3,5-Trinitrobenzene	1	8.478	8.477	0.001	218705	1.00	1.01	
12 1,3-Dinitrobenzene	1	9.038	9.037	0.001	301939	1.00	1.01	
13 Nitrobenzene	1	9.358	9.357	0.001	198867	1.00	1.02	
14 3,5-Dinitroaniline	1	9.558	9.564	-0.006	238621	1.00	1.02	
15 Tetryl	1	9.685	9.684	0.001	179110	1.00	1.05	
16 Nitroglycerin	2	10.125	10.124	0.001	653746	10.0	10.1	M
17 2,4,6-Trinitrotoluene	1	10.478	10.477	0.001	217864	1.00	1.00	
18 4-Amino-2,6-dinitrotoluene	1	10.631	10.637	-0.006	148480	1.00	1.03	
19 2-Amino-4,6-dinitrotoluene	1	10.865	10.864	0.001	208057	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.005	11.004	0.001	141490	1.00	1.01	
21 2,4-Dinitrotoluene	1	11.151	11.150	0.001	296080	1.00	1.01	
22 o-Nitrotoluene	1	11.851	11.850	0.001	126917	1.00	1.01	
23 p-Nitrotoluene	1	12.218	12.217	0.001	109373	1.00	1.01	
24 m-Nitrotoluene	1	12.725	12.724	0.001	138022	1.00	1.02	
25 PETN	2	13.805	13.797	0.008	743747	10.0	10.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT_00018

Amount Added: 50.00

Units: uL

8330IntermStk_00083

Amount Added: 100.00

Units: uL

Report Date: 08-Oct-2024 13:19:12

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040012.d

Injection Date: 04-Oct-2024 17:21:25

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 8

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

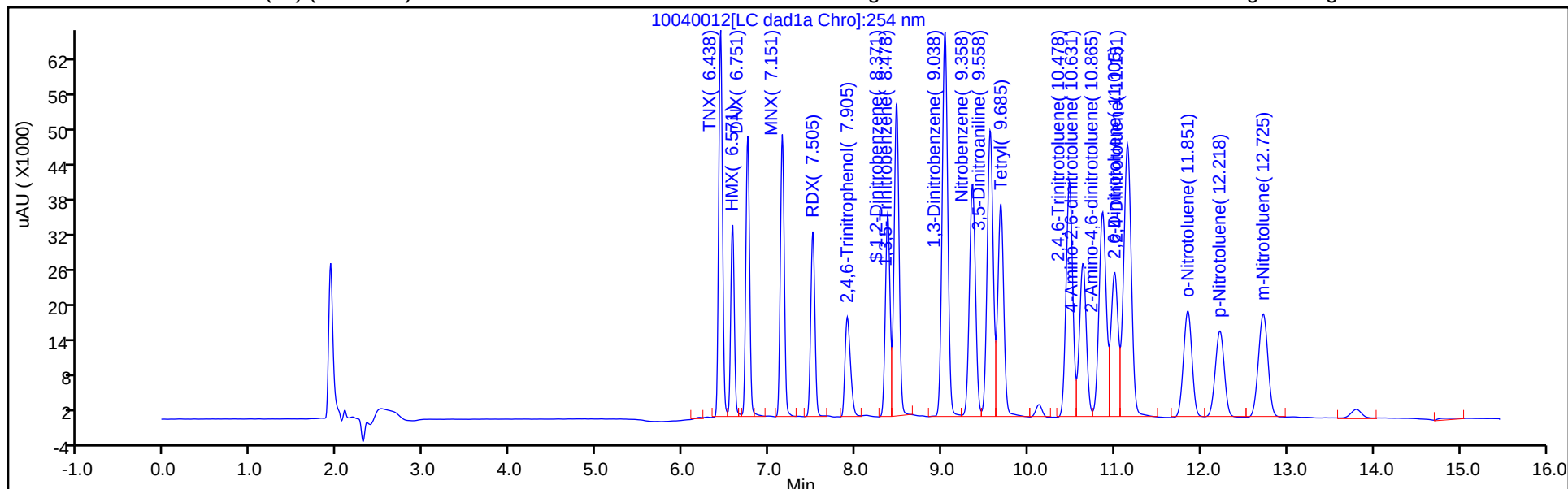
ALS Bottle#: 12

Method: 8330_X3

Limit Group: GCSV - 8330

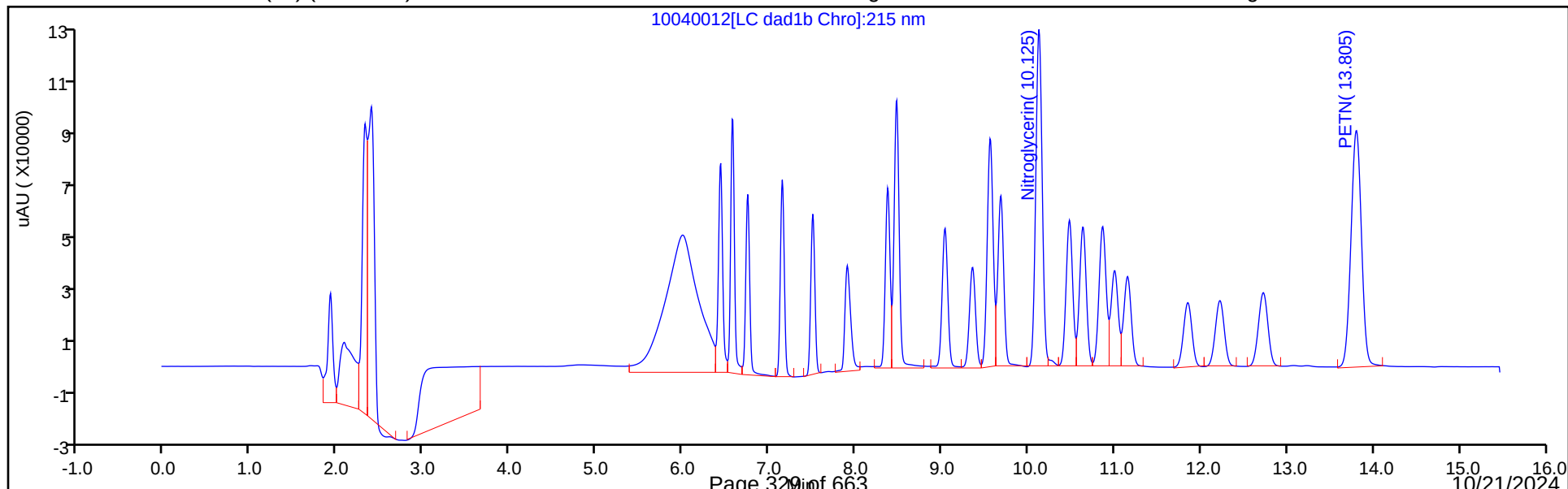
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040012.d

Injection Date: 04-Oct-2024 17:21:25

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 8

Client ID:

Operator ID: JZ

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)

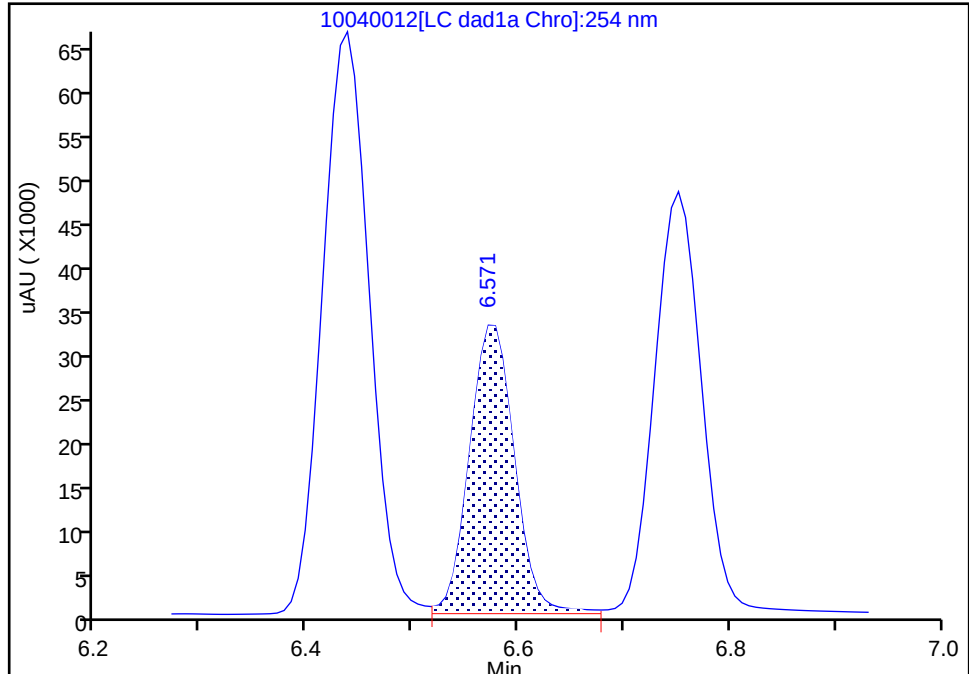
Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

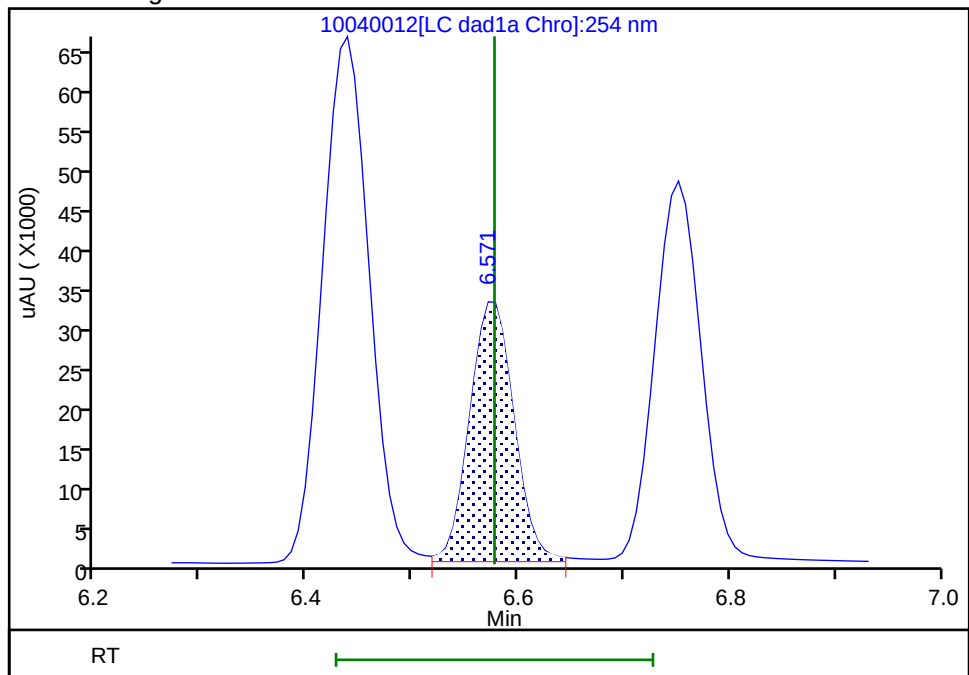
RT: 6.57
Area: 97637
Amount: 1.048050
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 96690
Amount: 1.000383
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 12:59:37 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

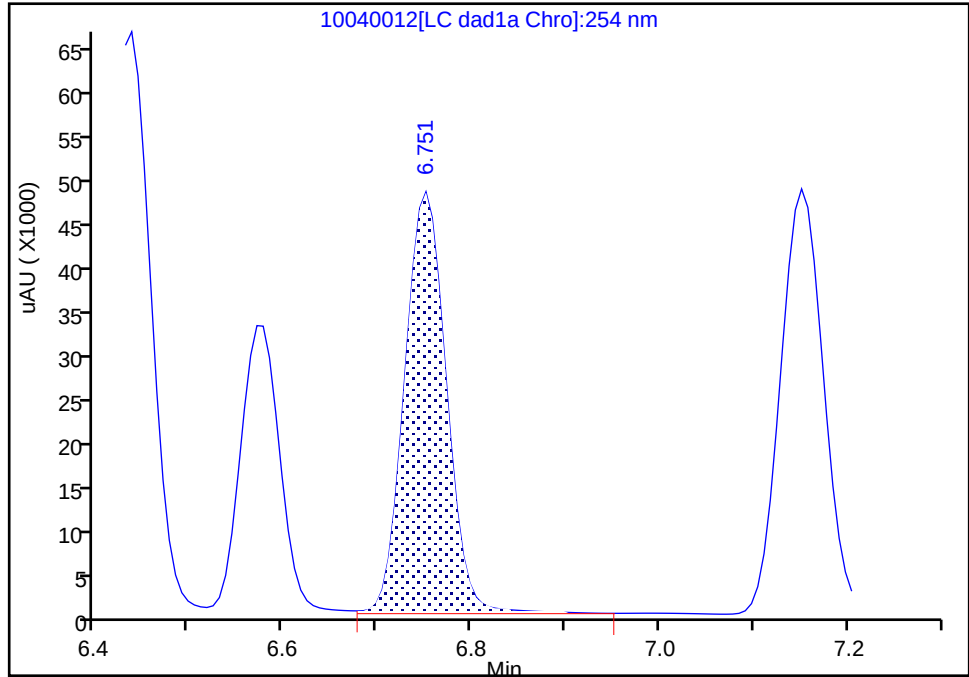
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040012.d
Injection Date: 04-Oct-2024 17:21:25 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

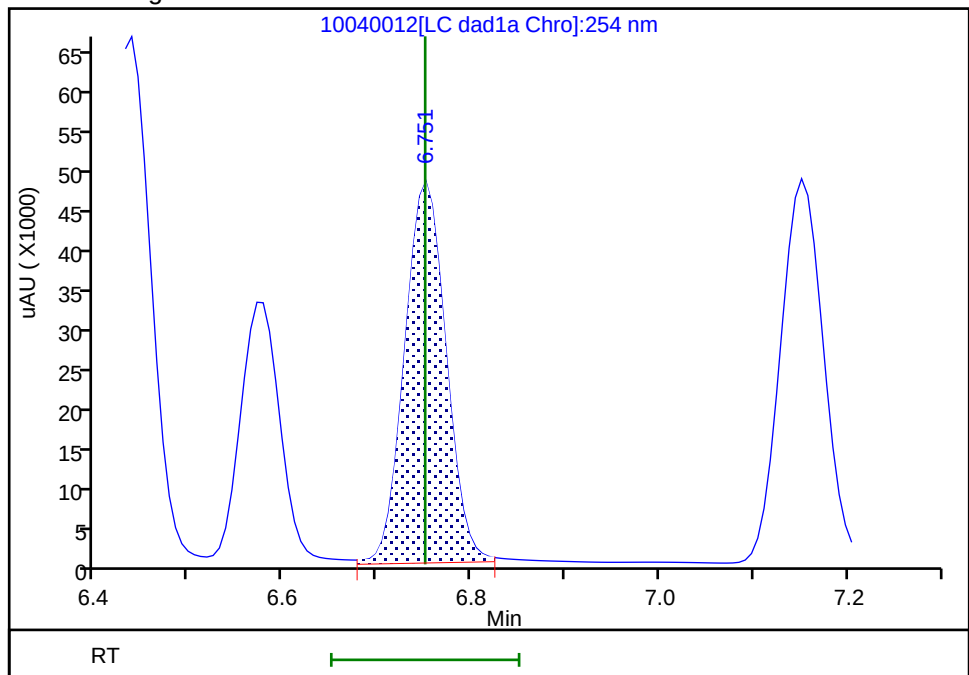
RT: 6.75
Area: 149634
Amount: 0.974610
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 147729
Amount: 1.011553
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 12:59:36 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

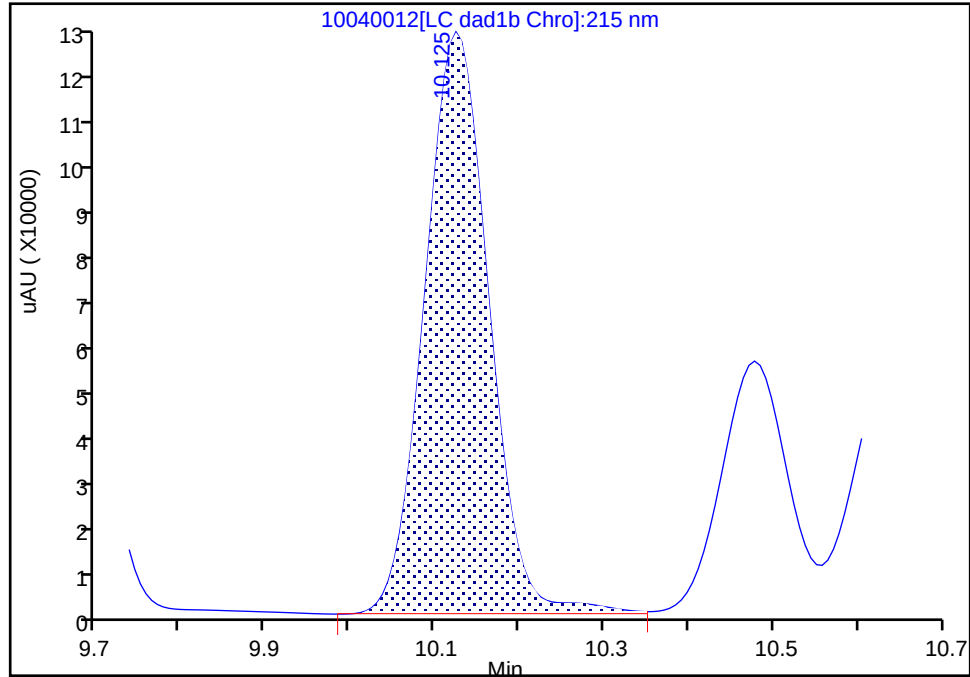
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040012.d
Injection Date: 04-Oct-2024 17:21:25 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

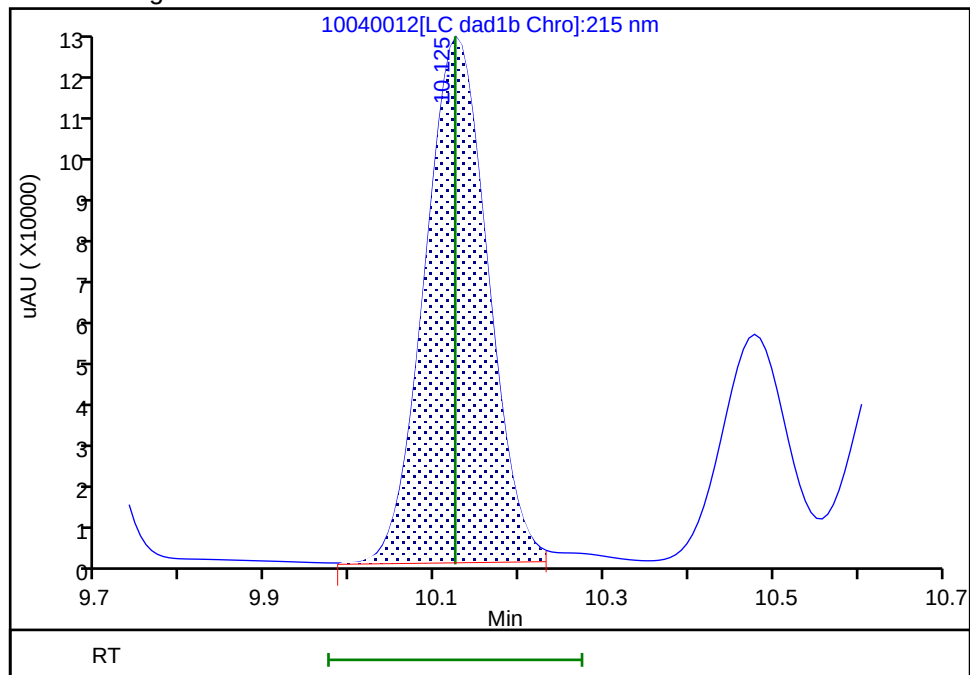
RT: 10.12
Area: 665997
Amount: 9.607872
Amount Units: ug/mL

Processing Integration Results



RT: 10.12
Area: 653746
Amount: 10.148792
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:08:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040013.D
 Lims ID: IC INT/DMT 7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 04-Oct-2024 17:43:18 ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 7
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:14 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:09:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.436	6.437	-0.001	143139	0.7021	0.7048	
4 HMX	1	6.576	6.577	-0.001	67292	0.7000	0.6962	
6 DNx	1	6.749	6.751	-0.002	104619	0.7007	0.7164	
7 MNx	1	7.156	7.151	0.005	108719	0.8169	0.8178	
8 RDX	1	7.509	7.511	-0.002	73136	0.7000	0.6960	
9 2,4,6-Trinitrophenol	1	7.916	7.937	-0.021	51986	0.7000	0.6892	
\$ 10 1,2-Dinitrobenzene	1	8.376	8.377	-0.001	89703	0.7000	0.6879	
11 1,3,5-Trinitrobenzene	1	8.476	8.477	-0.001	148857	0.7000	0.6849	
12 1,3-Dinitrobenzene	1	9.036	9.037	-0.001	205516	0.7000	0.6891	
13 Nitrobenzene	1	9.356	9.357	-0.001	134331	0.7000	0.6882	
14 3,5-Dinitroaniline	1	9.562	9.564	-0.002	160806	0.7000	0.6899	
15 Tetryl	1	9.682	9.684	-0.002	118273	0.7000	0.6912	
16 Nitroglycerin	2	10.129	10.124	0.005	445595	7.00	6.92	M
17 2,4,6-Trinitrotoluene	1	10.482	10.477	0.005	148548	0.7000	0.6836	
18 4-Amino-2,6-dinitrotoluene	1	10.642	10.637	0.005	101345	0.7000	0.7008	
19 2-Amino-4,6-dinitrotoluene	1	10.869	10.864	0.005	139261	0.7000	0.6809	
20 2,6-Dinitrotoluene	1	11.009	11.004	0.005	99691	0.7000	0.7093	
21 2,4-Dinitrotoluene	1	11.156	11.150	0.006	199392	0.7000	0.6833	
22 o-Nitrotoluene	1	11.862	11.850	0.012	87357	0.7000	0.6962	
23 p-Nitrotoluene	1	12.229	12.217	0.012	75434	0.7000	0.6976	
24 m-Nitrotoluene	1	12.736	12.724	0.012	94270	0.7000	0.6958	
25 PETN	2	13.822	13.797	0.025	508089	7.00	7.04	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT_00018

Amount Added: 35.00

Units: uL

8330IntermStk_00083

Amount Added: 70.00

Units: uL

Report Date: 08-Oct-2024 13:19:14

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040013.d

Injection Date: 04-Oct-2024 17:43:18

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 7

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

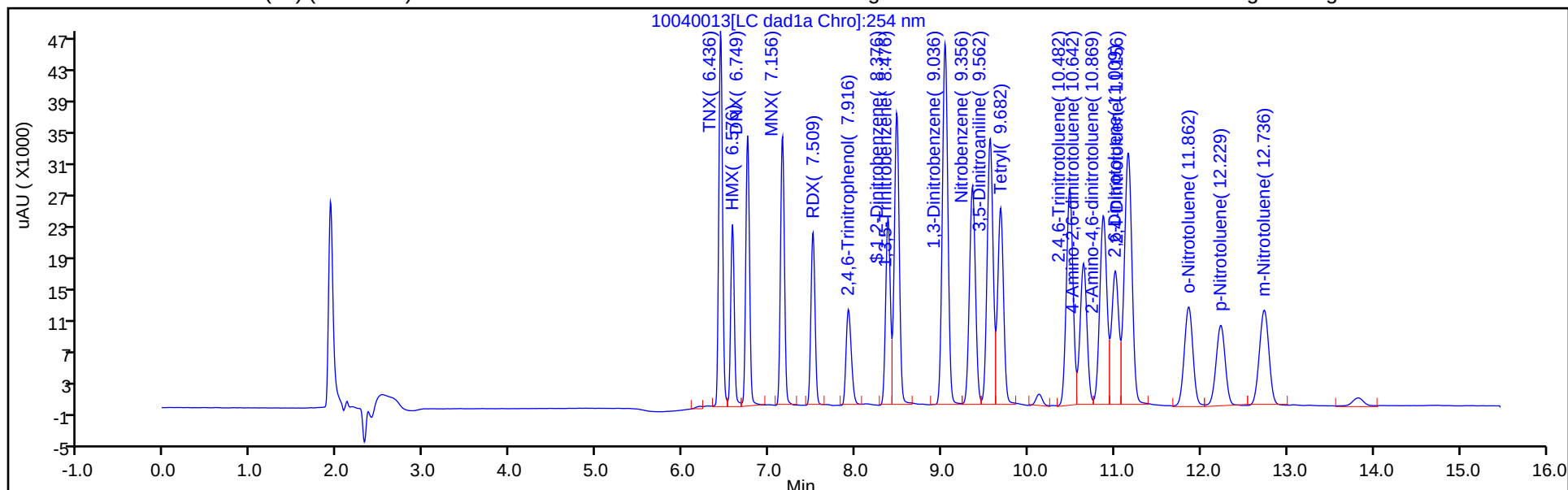
ALS Bottle#: 13

Method: 8330_X3

Limit Group: GCSV - 8330

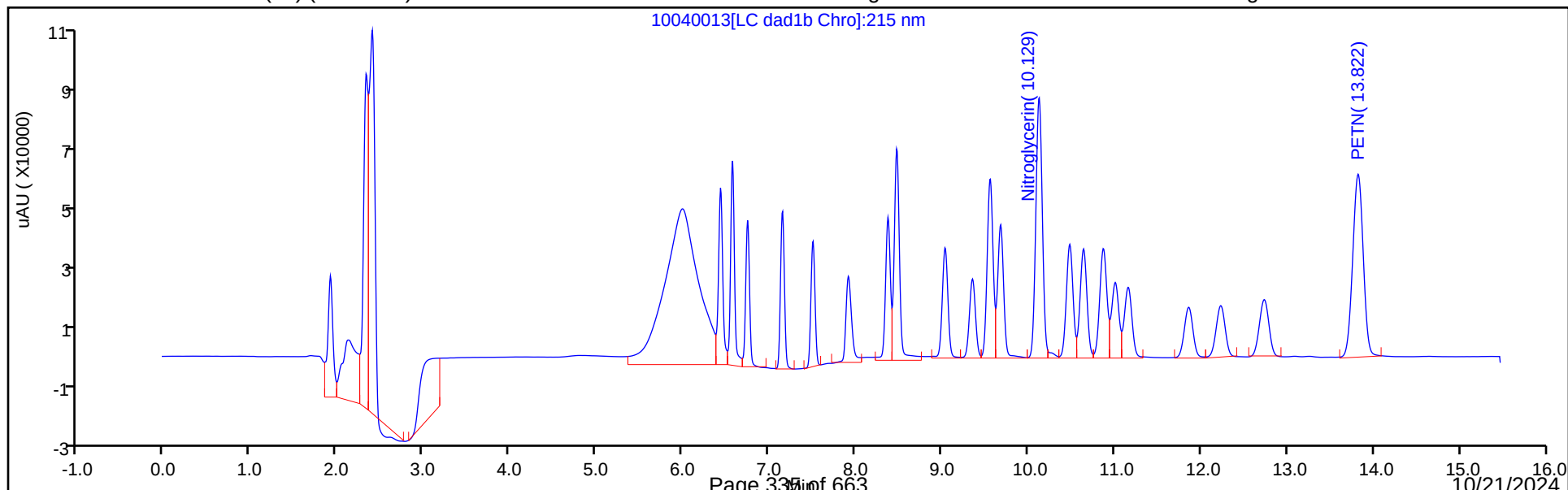
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

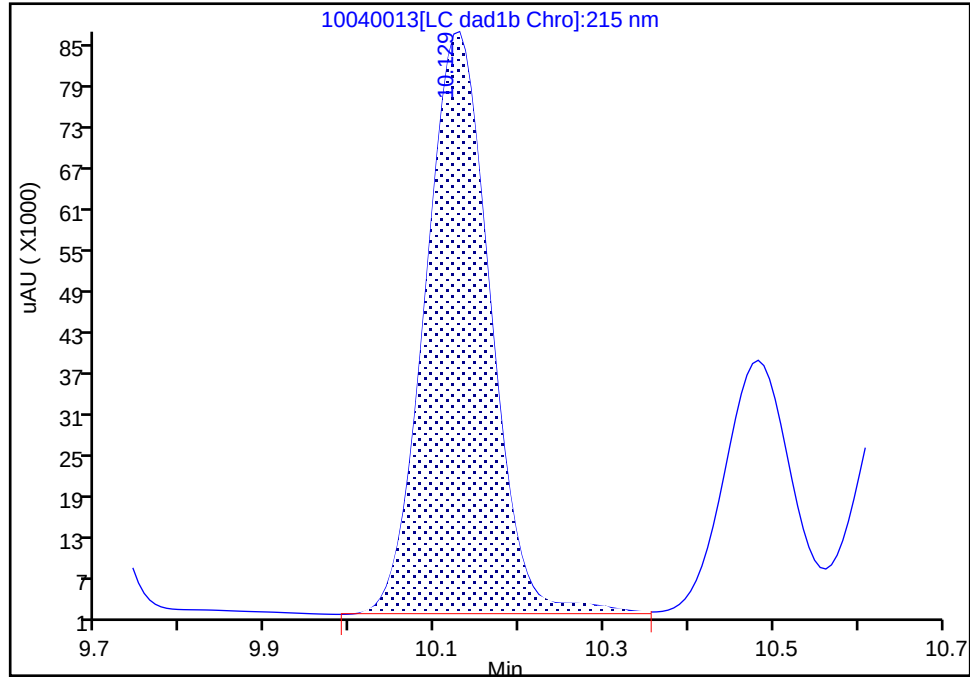
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040013.d
Injection Date: 04-Oct-2024 17:43:18 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 7
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

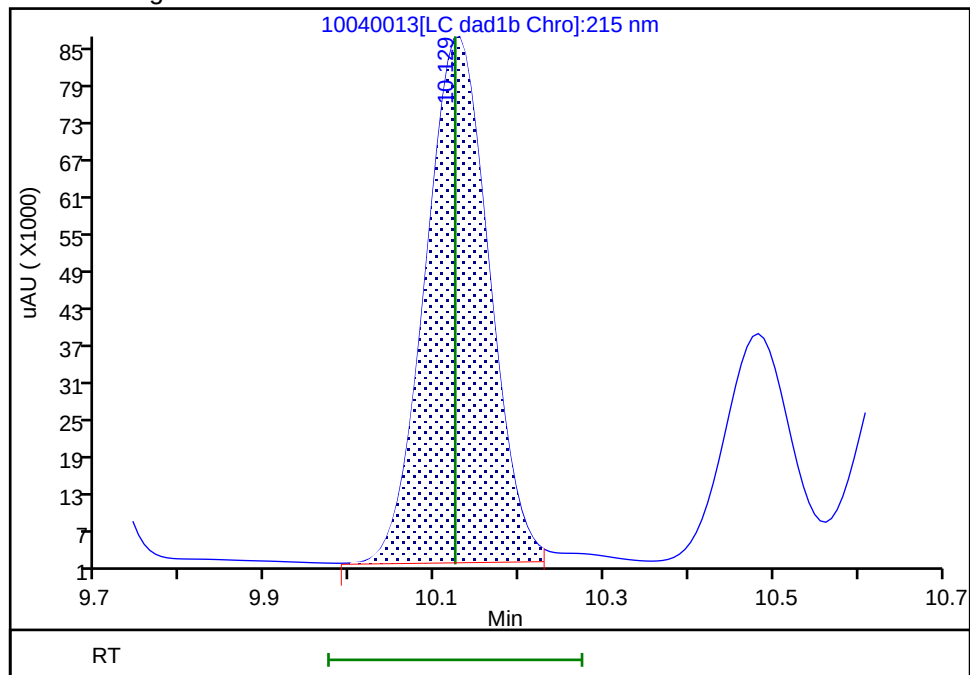
RT: 10.13
Area: 453503
Amount: 6.555243
Amount Units: ug/mL

Processing Integration Results



RT: 10.13
Area: 445595
Amount: 6.919435
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040014.D
 Lims ID: IC INT/DMT 6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 04-Oct-2024 18:05:18 ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 6
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:15 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:01:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.437	-0.003	81160	0.4012	0.3996	
4 HMX	1	6.567	6.577	-0.010	38978	0.4000	0.4033	
6 DNx	1	6.747	6.751	-0.004	59711	0.4004	0.4089	
7 MNx	1	7.154	7.151	0.003	61334	0.4668	0.4614	
8 RDX	1	7.507	7.511	-0.004	42489	0.4000	0.4036	
9 2,4,6-Trinitrophenol	1	7.927	7.937	-0.010	30056	0.4000	0.3985	
\$ 10 1,2-Dinitrobenzene	1	8.380	8.377	0.003	51425	0.4000	0.3943	
11 1,3,5-Trinitrobenzene	1	8.480	8.477	0.003	85185	0.4000	0.3919	
12 1,3-Dinitrobenzene	1	9.047	9.037	0.010	118487	0.4000	0.3973	
13 Nitrobenzene	1	9.367	9.357	0.010	77013	0.4000	0.3946	
14 3,5-Dinitroaniline	1	9.573	9.564	0.009	92721	0.4000	0.3979	
15 Tetryl	1	9.700	9.684	0.016	66783	0.4000	0.3906	
16 Nitroglycerin	2	10.140	10.124	0.016	257082	4.00	3.99	M
17 2,4,6-Trinitrotoluene	1	10.493	10.477	0.016	85834	0.4000	0.3950	
18 4-Amino-2,6-dinitrotoluene	1	10.653	10.637	0.016	57494	0.4000	0.3957	
19 2-Amino-4,6-dinitrotoluene	1	10.880	10.864	0.016	79804	0.4000	0.3902	
20 2,6-Dinitrotoluene	1	11.020	11.004	0.016	57501	0.4000	0.4086	
21 2,4-Dinitrotoluene	1	11.167	11.150	0.017	113760	0.4000	0.3898	
22 o-Nitrotoluene	1	11.867	11.850	0.017	49842	0.4000	0.3972	
23 p-Nitrotoluene	1	12.240	12.217	0.023	42988	0.4000	0.3969	
24 m-Nitrotoluene	1	12.740	12.724	0.016	54100	0.4000	0.3985	
25 PETN	2	13.827	13.797	0.030	291336	4.00	4.03	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 40.00

Units: uL

8330 DMT_00018

Amount Added: 20.00

Units: uL

Report Date: 08-Oct-2024 13:19:16

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040014.d

Injection Date: 04-Oct-2024 18:05:18

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 6

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

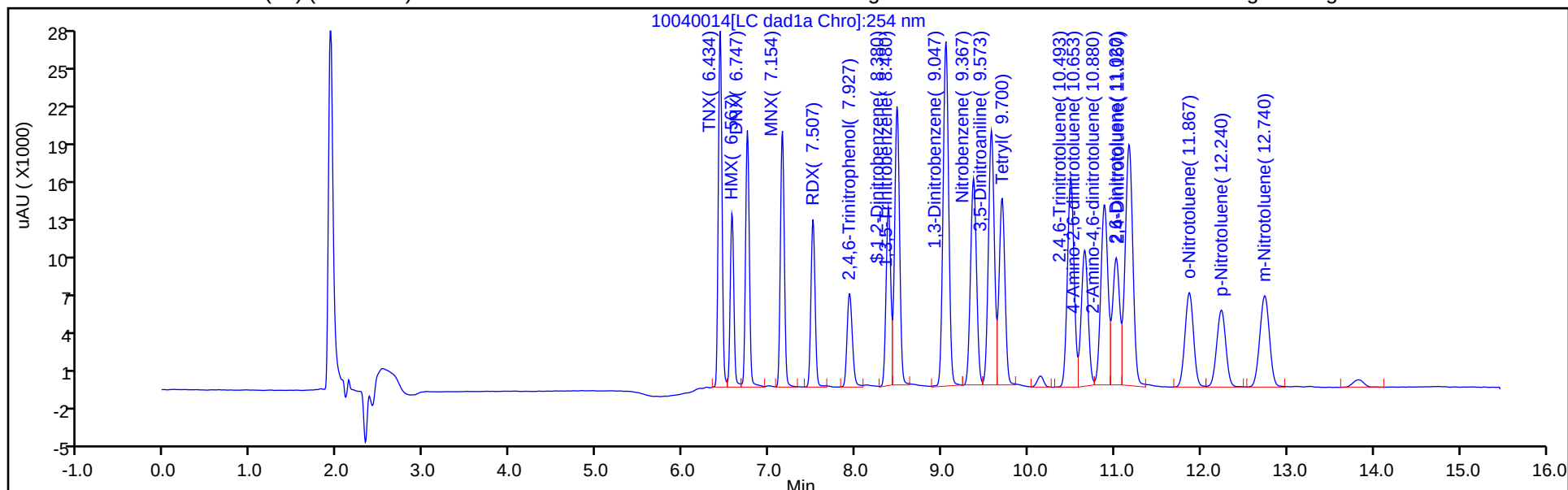
ALS Bottle#: 14

Method: 8330_X3

Limit Group: GCSV - 8330

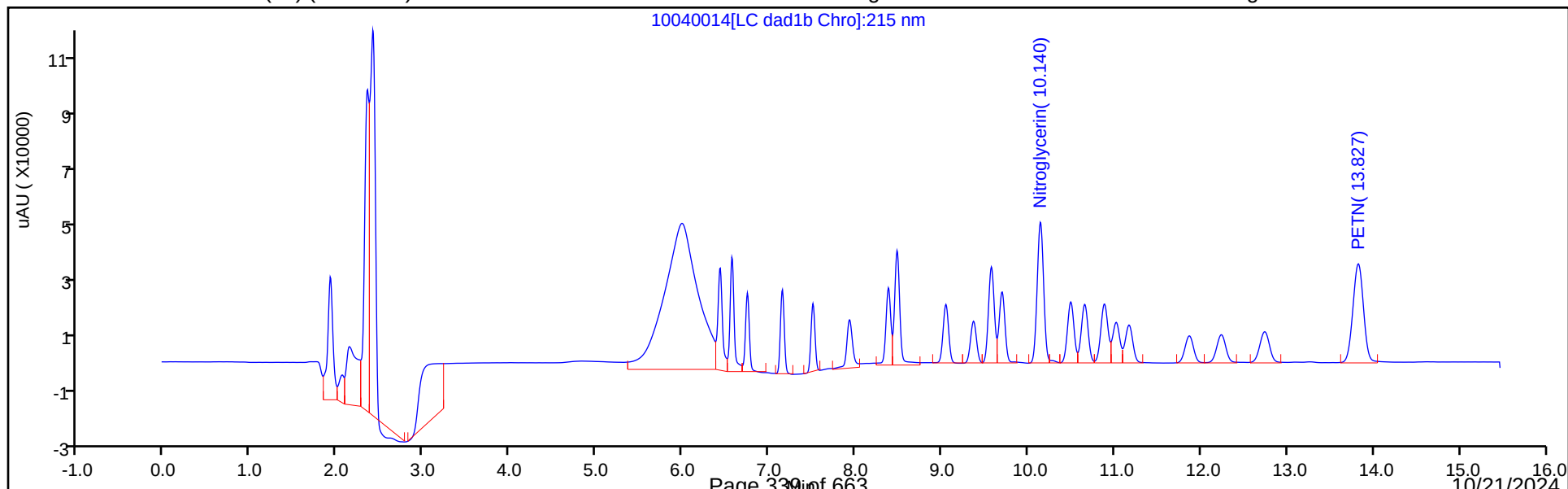
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

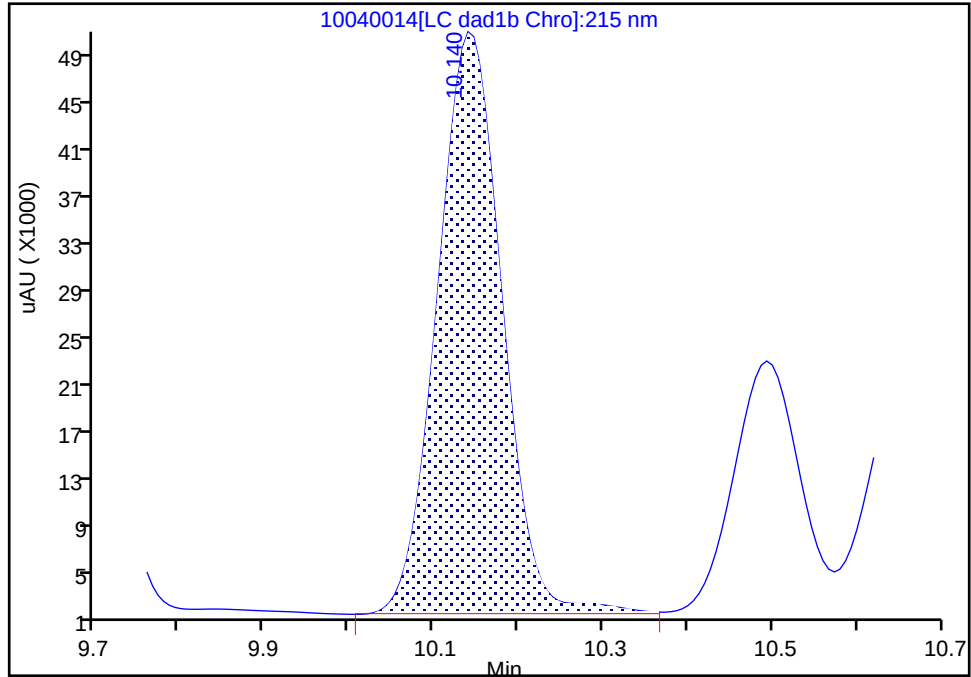
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040014.d
Injection Date: 04-Oct-2024 18:05:18 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

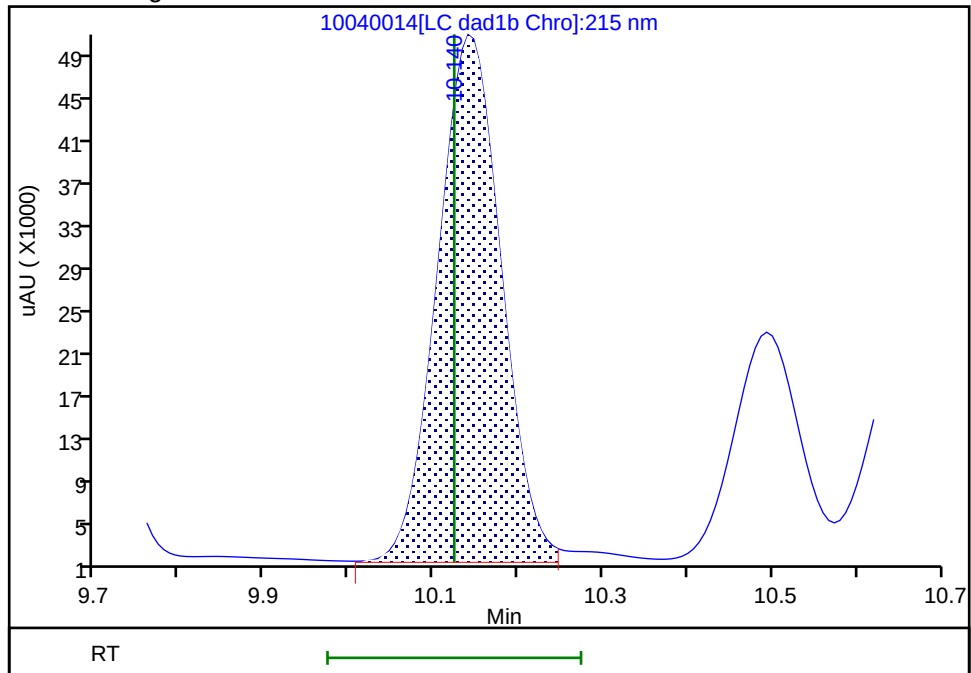
RT: 10.14
Area: 261803
Amount: 3.791159
Amount Units: ug/mL

Processing Integration Results



RT: 10.14
Area: 257082
Amount: 3.994752
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040015.D
 Lims ID: IC INT/DMT 5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 04-Oct-2024 18:27:10 ALS Bottle#: 15 Worklist Smp#: 15
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 5
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:18 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:01:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.436	6.437	-0.001	51995	0.2508	0.2560	M
4 HMX	1	6.576	6.577	-0.001	24377	0.2500	0.2522	M
6 DNx	1	6.749	6.751	-0.002	37571	0.2503	0.2573	M
7 MNx	1	7.156	7.151	0.005	39273	0.2918	0.2954	
8 RDX	1	7.509	7.511	-0.002	26694	0.2500	0.2530	
9 2,4,6-Trinitrophenol	1	7.936	7.937	-0.001	18836	0.2500	0.2497	
\$ 10 1,2-Dinitrobenzene	1	8.376	8.377	-0.001	32250	0.2500	0.2473	
11 1,3,5-Trinitrobenzene	1	8.476	8.477	-0.001	53554	0.2500	0.2464	
12 1,3-Dinitrobenzene	1	9.036	9.037	-0.001	73648	0.2500	0.2469	
13 Nitrobenzene	1	9.356	9.357	-0.001	47423	0.2500	0.2430	
14 3,5-Dinitroaniline	1	9.563	9.564	-0.001	56945	0.2500	0.2445	
15 Tetryl	1	9.683	9.684	-0.001	42416	0.2500	0.2483	
16 Nitroglycerin	2	10.123	10.124	-0.001	162585	2.50	2.53	M
17 2,4,6-Trinitrotoluene	1	10.476	10.477	-0.001	53322	0.2500	0.2454	
18 4-Amino-2,6-dinitrotoluene	1	10.636	10.637	-0.001	36669	0.2500	0.2508	
19 2-Amino-4,6-dinitrotoluene	1	10.863	10.864	-0.001	50346	0.2500	0.2462	
20 2,6-Dinitrotoluene	1	11.003	11.004	-0.001	34878	0.2500	0.2473	
21 2,4-Dinitrotoluene	1	11.149	11.150	-0.001	71944	0.2500	0.2465	
22 o-Nitrotoluene	1	11.849	11.850	-0.001	31059	0.2500	0.2475	
23 p-Nitrotoluene	1	12.223	12.217	0.006	26896	0.2500	0.2478	
24 m-Nitrotoluene	1	12.723	12.724	-0.001	33732	0.2500	0.2478	
25 PETN	2	13.796	13.797	-0.001	181859	2.50	2.52	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 25.00

Units: uL

8330 DMT_00018

Amount Added: 12.50

Units: uL

Report Date: 08-Oct-2024 13:19:18

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040015.d

Injection Date: 04-Oct-2024 18:27:10

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 5

Worklist Smp#: 15

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

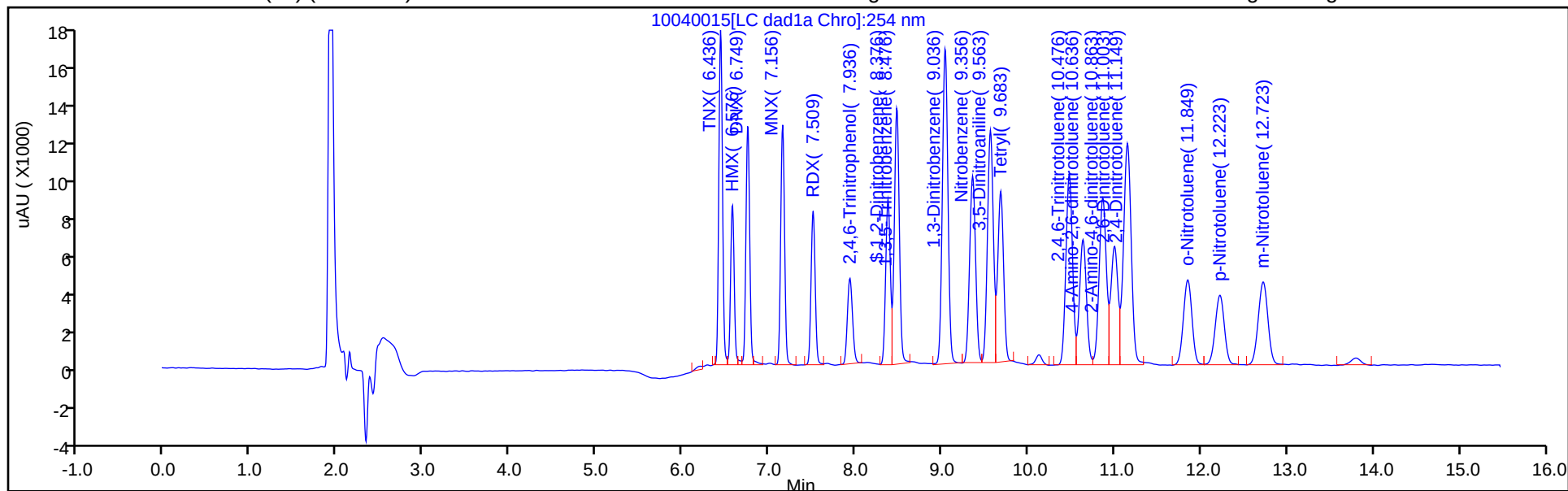
ALS Bottle#: 15

Method: 8330_X3

Limit Group: GCSV - 8330

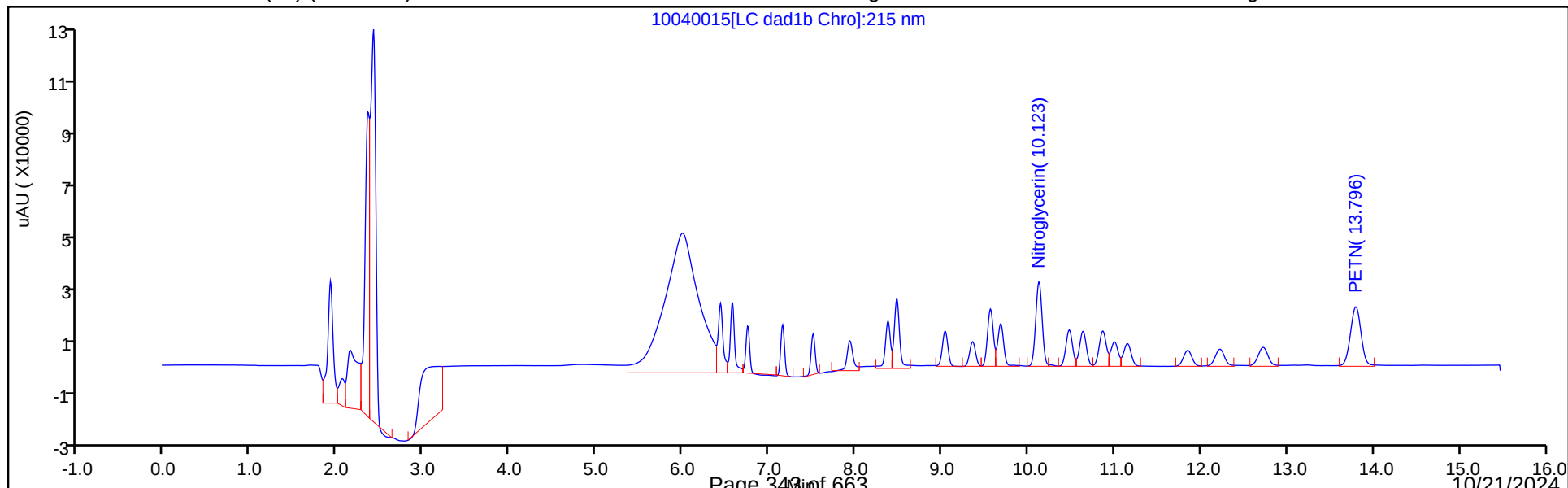
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

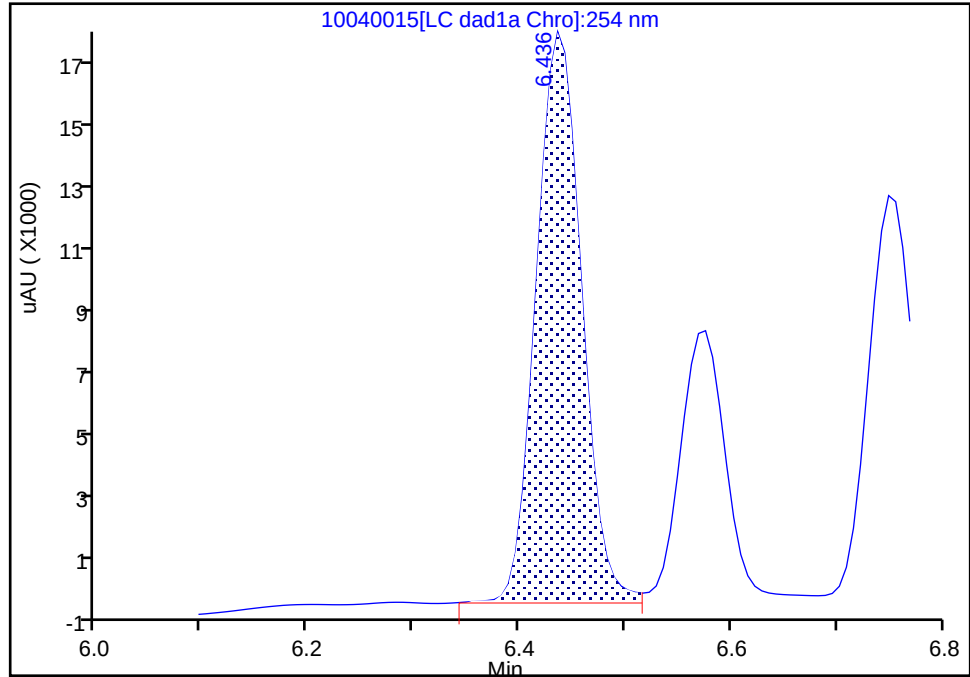
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040015.d
Injection Date: 04-Oct-2024 18:27:10 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

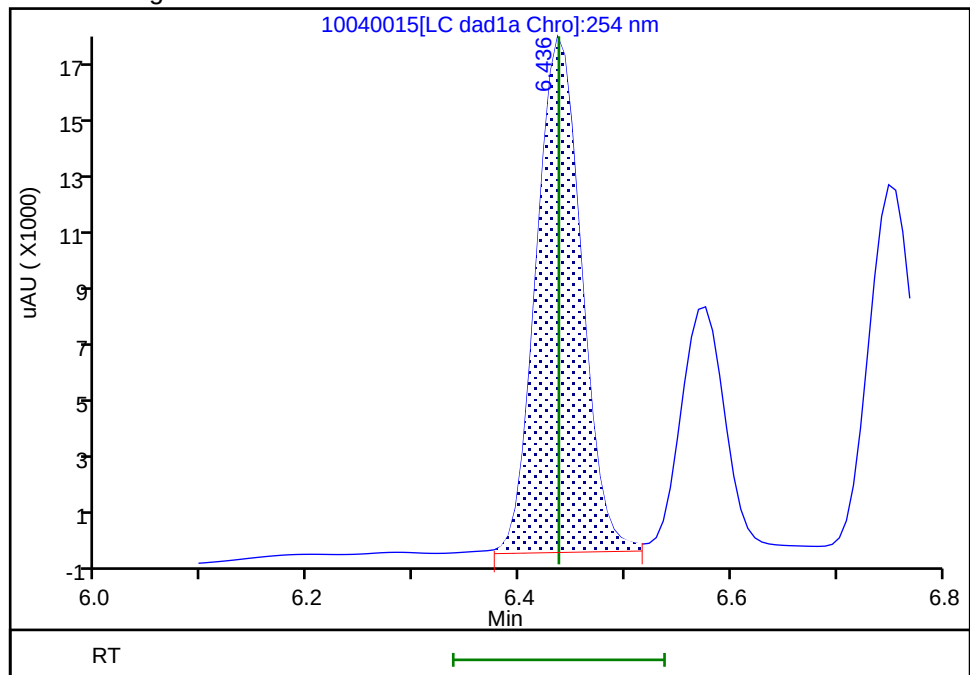
RT: 6.44
Area: 52071
Amount: 0.246404
Amount Units: ug/mL

Processing Integration Results



RT: 6.44
Area: 51995
Amount: 0.256035
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:01:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040015.d
Injection Date: 04-Oct-2024 18:27:10 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ
Injection Vol: 100.0 ul
Method: 8330_X3
Column: UltraCarb5uODS (20) (4.60 mm)

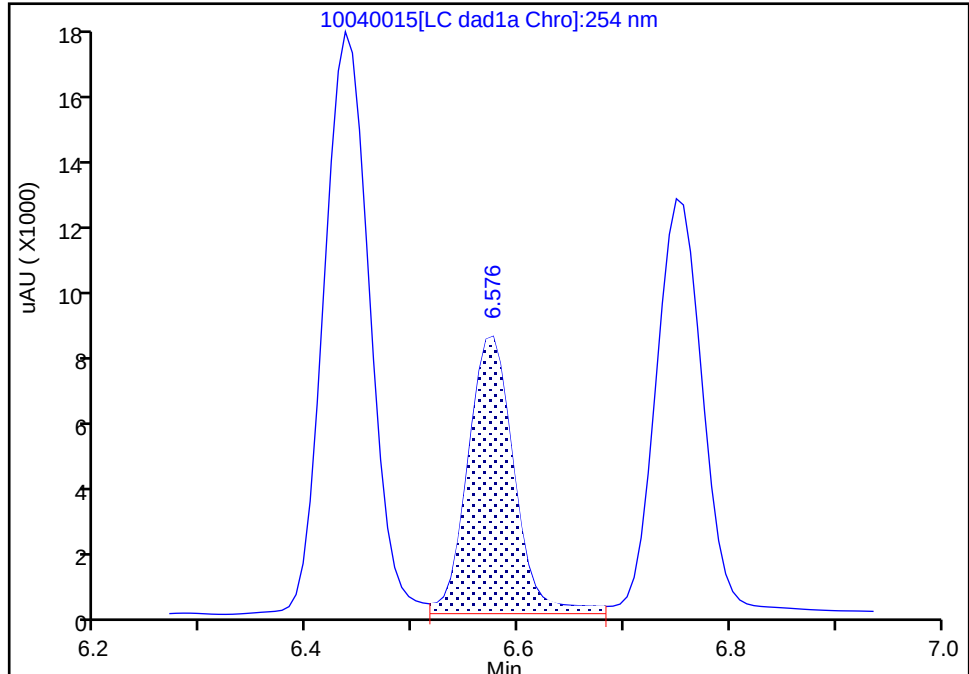
ALS Bottle#: 15 Worklist Smp#: 15
Dil. Factor: 1.0000
Limit Group: GCSV - 8330
Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

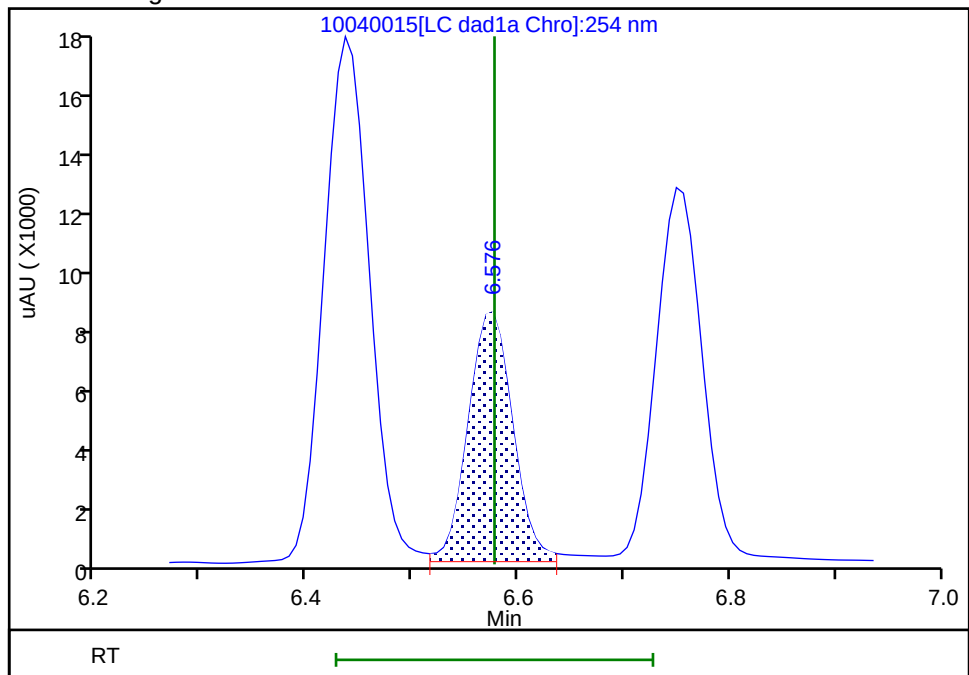
RT: 6.58
Area: 24952
Amount: 0.261690
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 24377
Amount: 0.252212
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:01:43 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

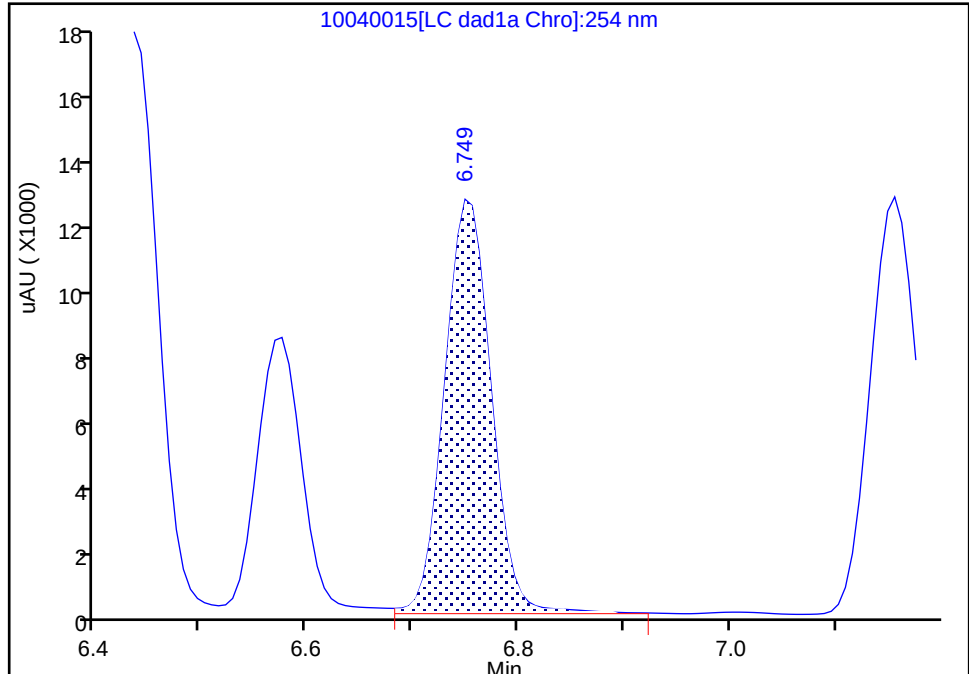
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040015.d
Injection Date: 04-Oct-2024 18:27:10 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

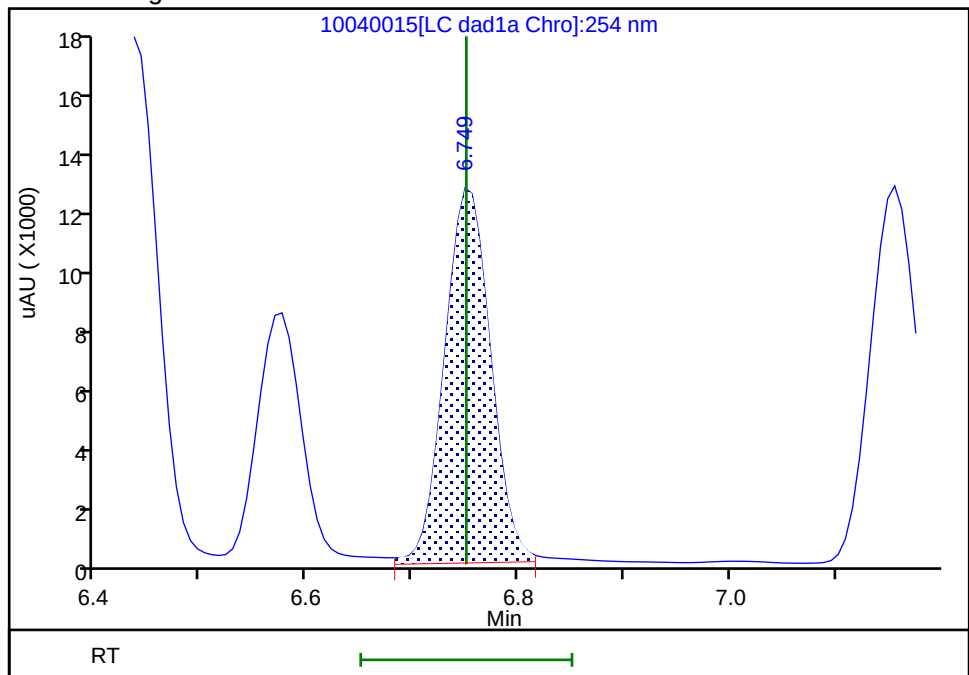
RT: 6.75
Area: 38135
Amount: 0.248727
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 37571
Amount: 0.257262
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:01:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040015.d

Injection Date: 04-Oct-2024 18:27:10

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 5

Client ID:

Operator ID: JZ

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

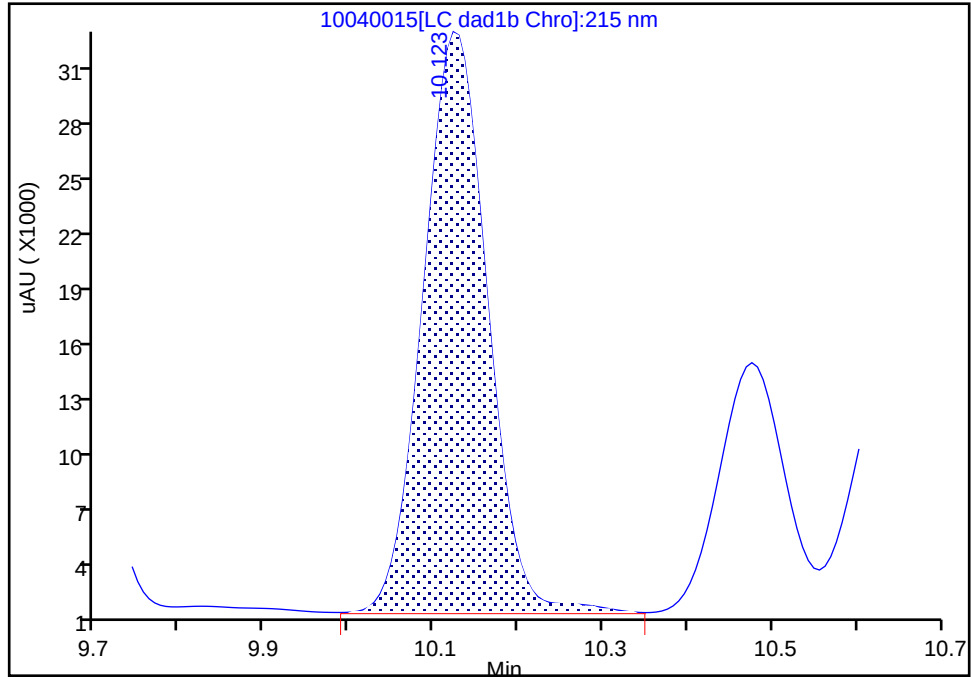
LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

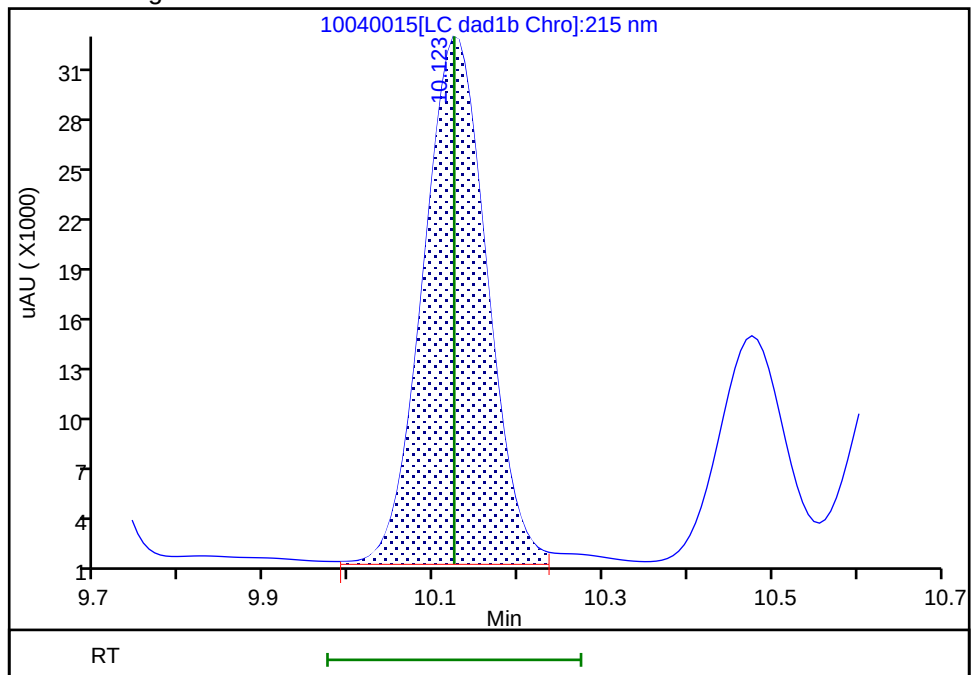
RT: 10.12
Area: 165170
Amount: 2.396371
Amount Units: ug/mL

Processing Integration Results



RT: 10.12
Area: 162585
Amount: 2.528679
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:17 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040016.D
 Lims ID: IC INT/DMT 4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 04-Oct-2024 18:49:07 ALS Bottle#: 16 Worklist Smp#: 16
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 4
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:19 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:04:07

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.437	6.437	0.000	20335	0.1003	0.1001	M
4 HMX	1	6.577	6.577	0.000	8775	0.1000	0.0908	M
6 DNx	1	6.751	6.751	0.000	14149	0.1001	0.0969	M
7 MNx	1	7.151	7.151	0.000	15337	0.1167	0.1154	
8 RDX	1	7.511	7.511	0.000	10773	0.1000	0.1011	M
9 2,4,6-Trinitrophenol	1	7.937	7.937	0.000	7391	0.1000	0.0980	M
\$ 10 1,2-Dinitrobenzene	1	8.377	8.377	0.000	13238	0.1000	0.1015	
11 1,3,5-Trinitrobenzene	1	8.477	8.477	0.000	21407	0.1000	0.0985	
12 1,3-Dinitrobenzene	1	9.037	9.037	0.000	29659	0.1000	0.0994	
13 Nitrobenzene	1	9.357	9.357	0.000	19360	0.1000	0.0992	
14 3,5-Dinitroaniline	1	9.564	9.564	0.000	23292	0.1000	0.1002	
15 Tetryl	1	9.684	9.684	0.000	17130	0.1000	0.1007	M
16 Nitroglycerin	2	10.124	10.124	0.000	63200	1.00	0.9868	M
17 2,4,6-Trinitrotoluene	1	10.477	10.477	0.000	21685	0.1000	0.0998	
18 4-Amino-2,6-dinitrotoluene	1	10.637	10.637	0.000	15147	0.1000	0.1010	
19 2-Amino-4,6-dinitrotoluene	1	10.864	10.864	0.000	20612	0.1000	0.1008	
20 2,6-Dinitrotoluene	1	11.004	11.004	0.000	14334	0.1000	0.1008	
21 2,4-Dinitrotoluene	1	11.150	11.150	0.000	29723	0.1000	0.1019	
22 o-Nitrotoluene	1	11.850	11.850	0.000	12487	0.1000	0.0995	M
23 p-Nitrotoluene	1	12.217	12.217	0.000	10624	0.1000	0.0970	M
24 m-Nitrotoluene	1	12.724	12.724	0.000	13345	0.1000	0.0969	M
25 PETN	2	13.797	13.797	0.000	71766	1.00	0.99	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 10.00

Units: uL

8330 DMT_00018

Amount Added: 5.00

Units: uL

Report Date: 08-Oct-2024 13:19:20

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 4

Worklist Smp#: 16

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

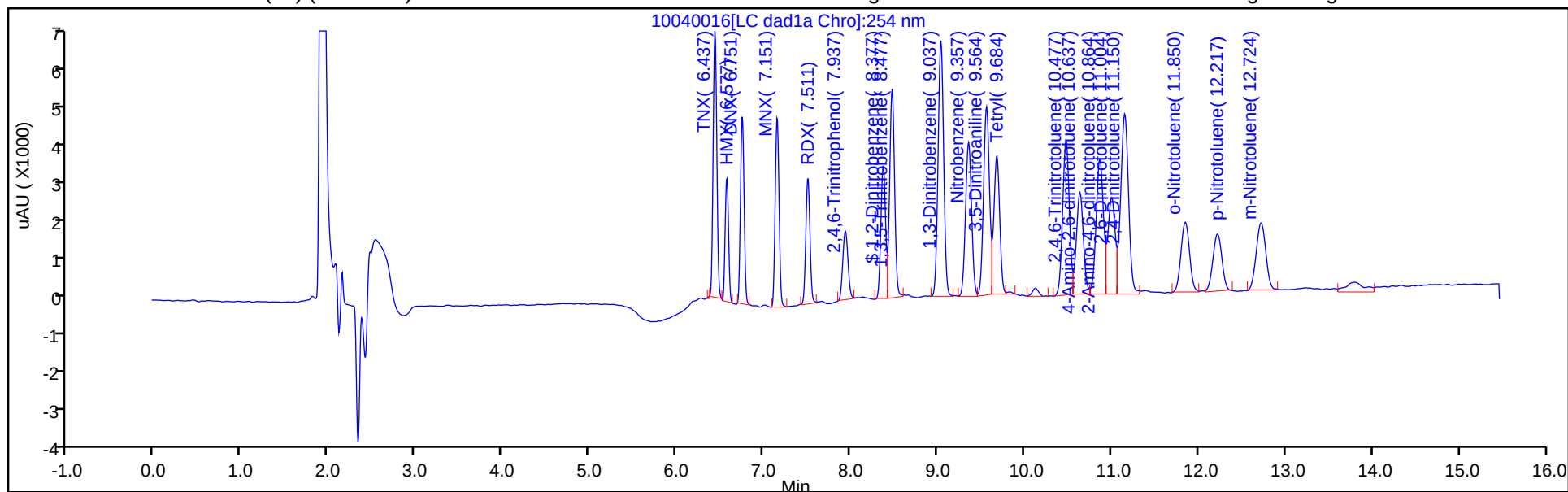
ALS Bottle#: 16

Method: 8330_X3

Limit Group: GCSV - 8330

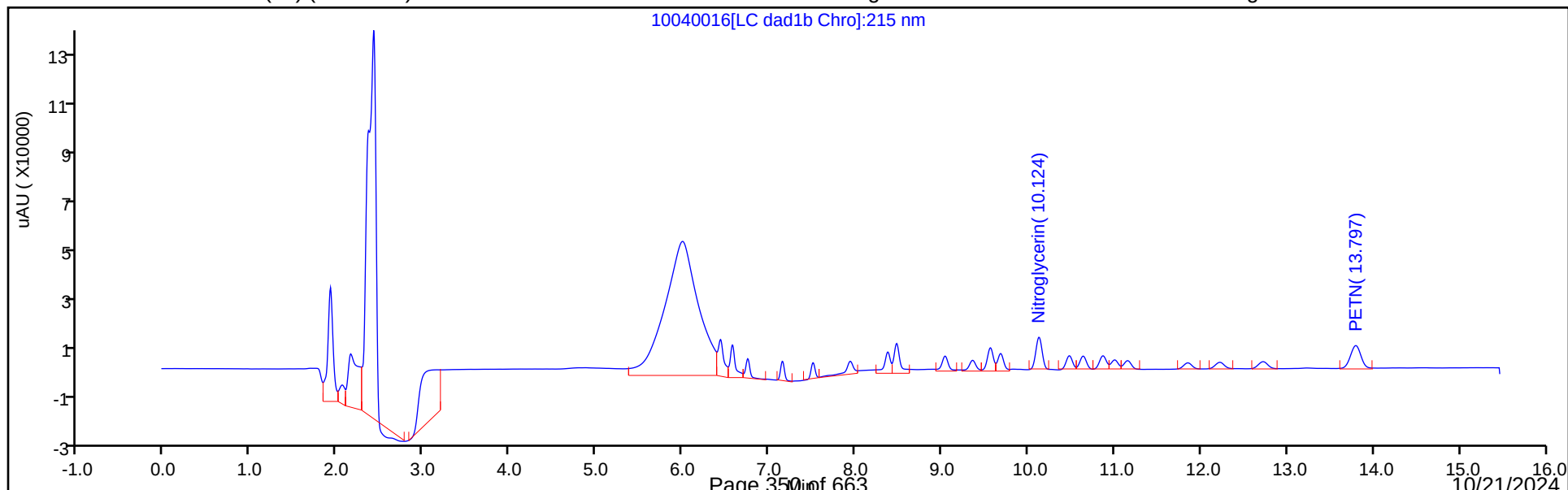
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

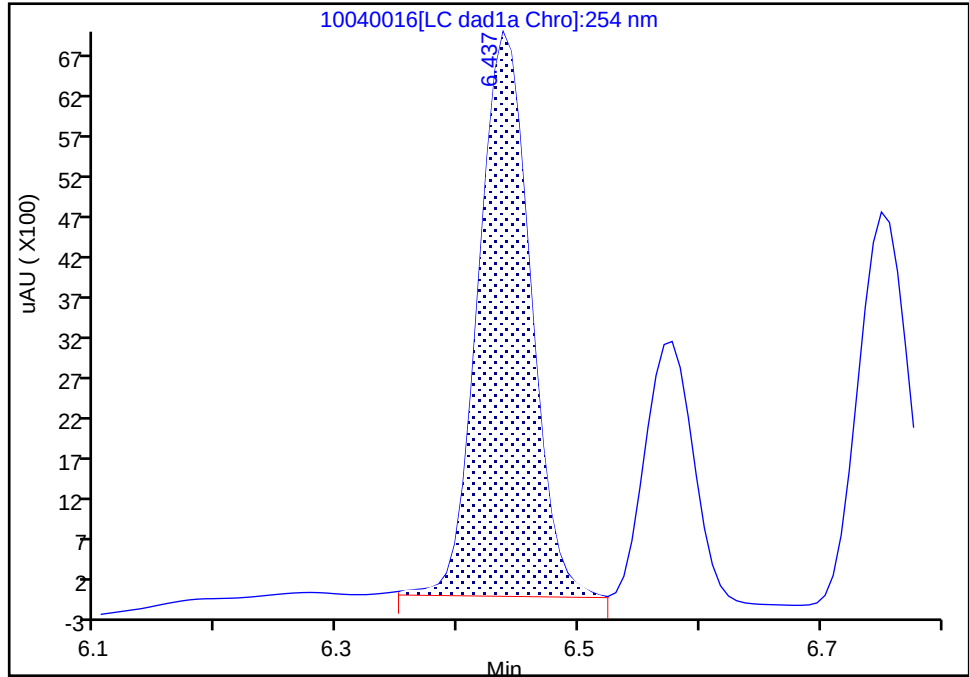
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

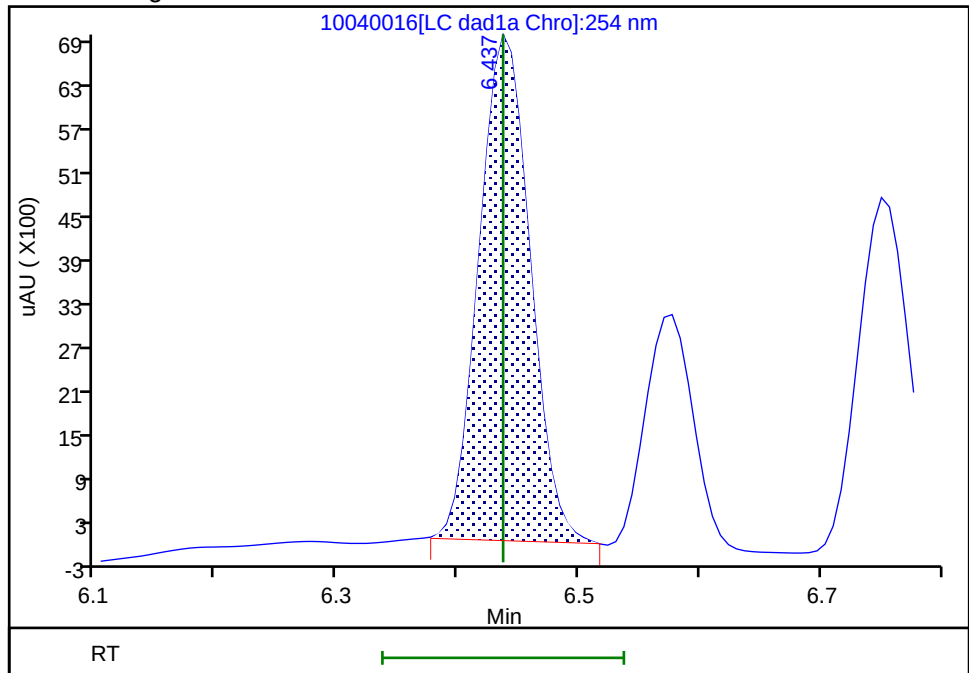
RT: 6.44
Area: 20842
Amount: 0.098642
Amount Units: ug/mL

Processing Integration Results



RT: 6.44
Area: 20335
Amount: 0.100134
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:02:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

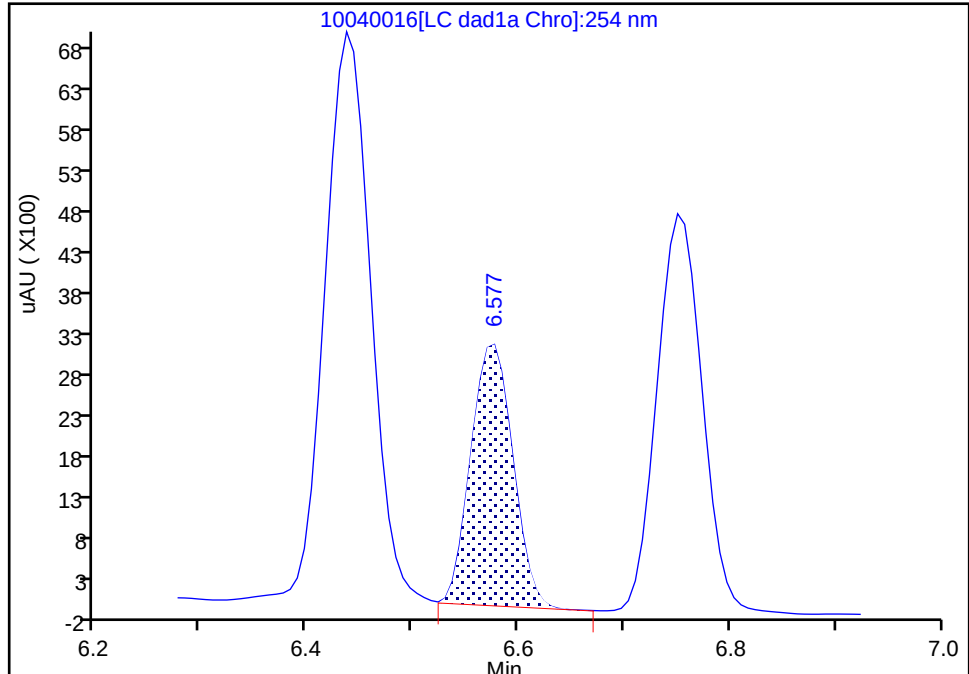
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

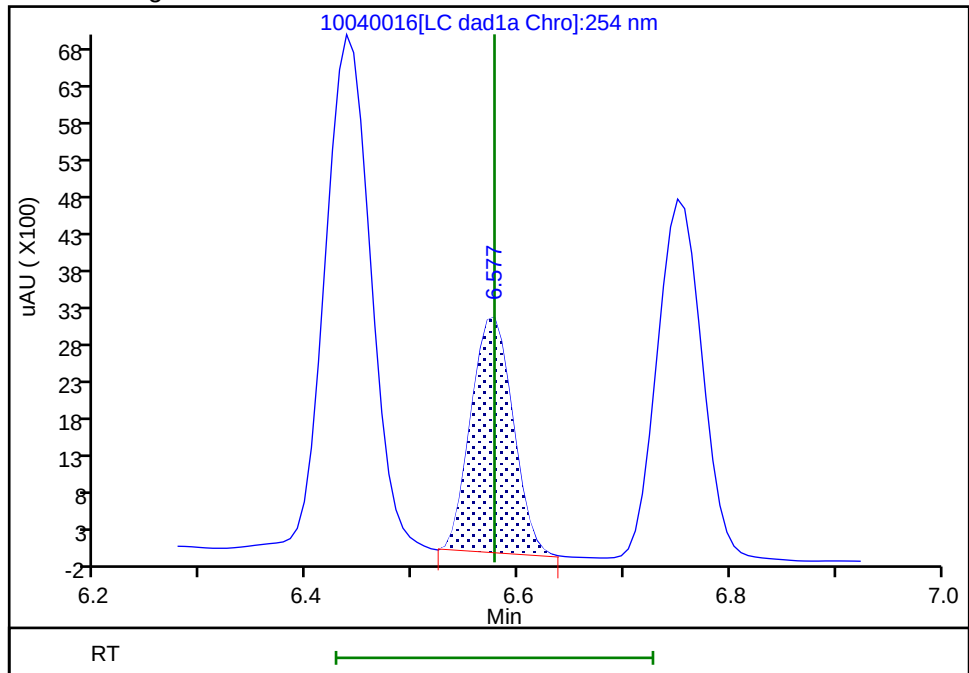
RT: 6.58
Area: 8824
Amount: 0.087114
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 8775
Amount: 0.090789
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:02:33 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 4

Client ID:

Operator ID: JZ

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

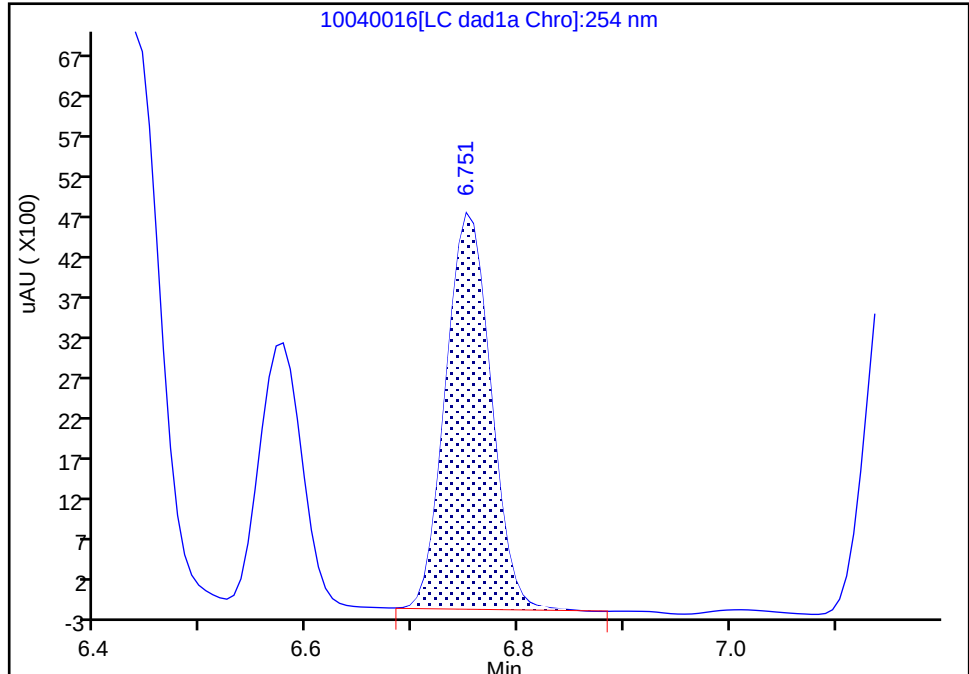
LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

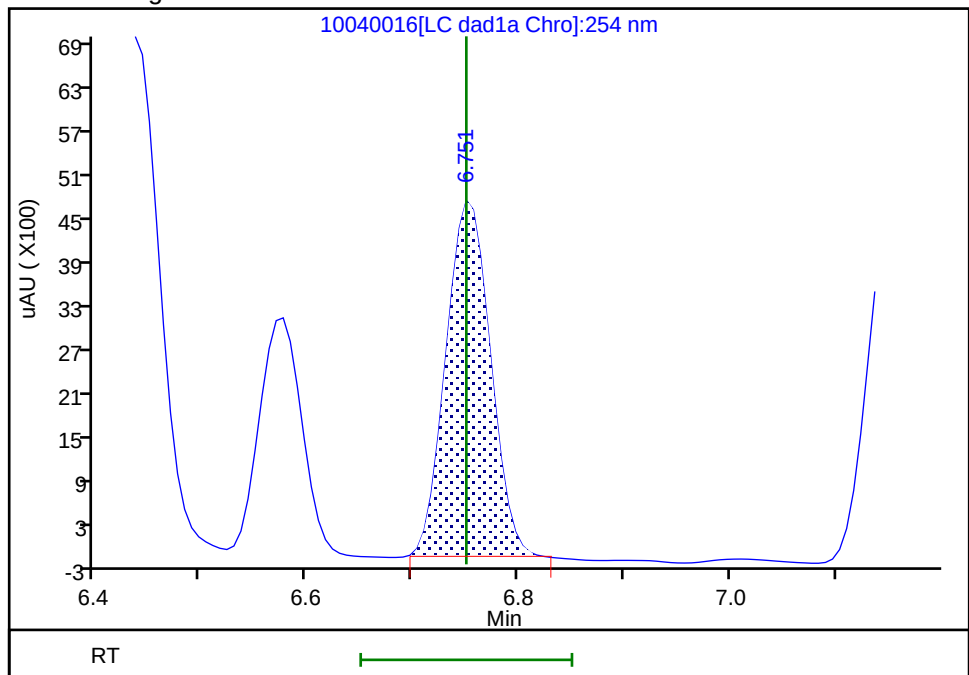
RT: 6.75
Area: 14575
Amount: 0.095218
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 14149
Amount: 0.096883
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:02:38 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

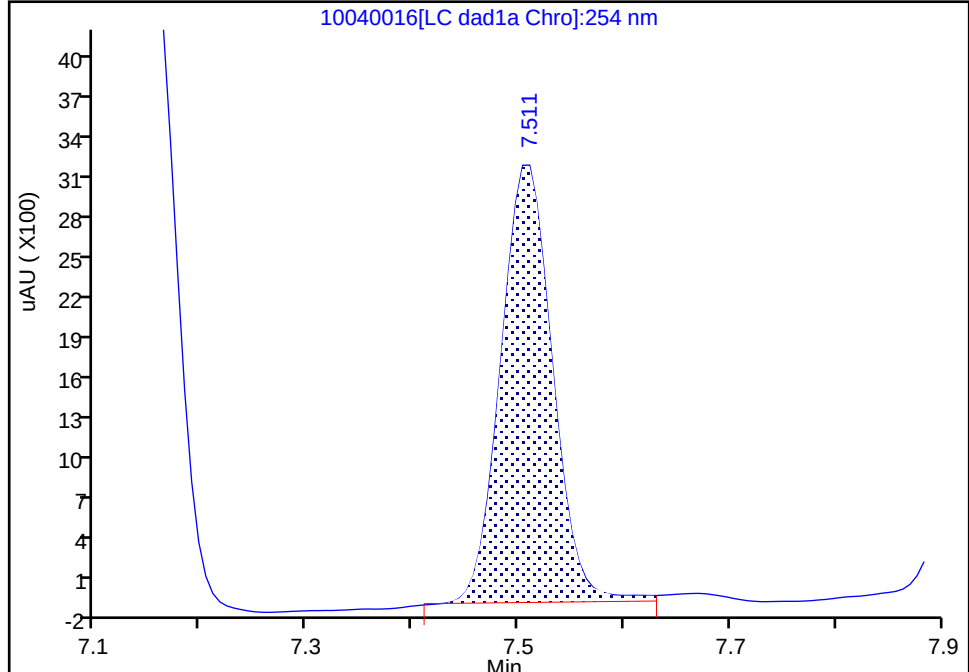
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

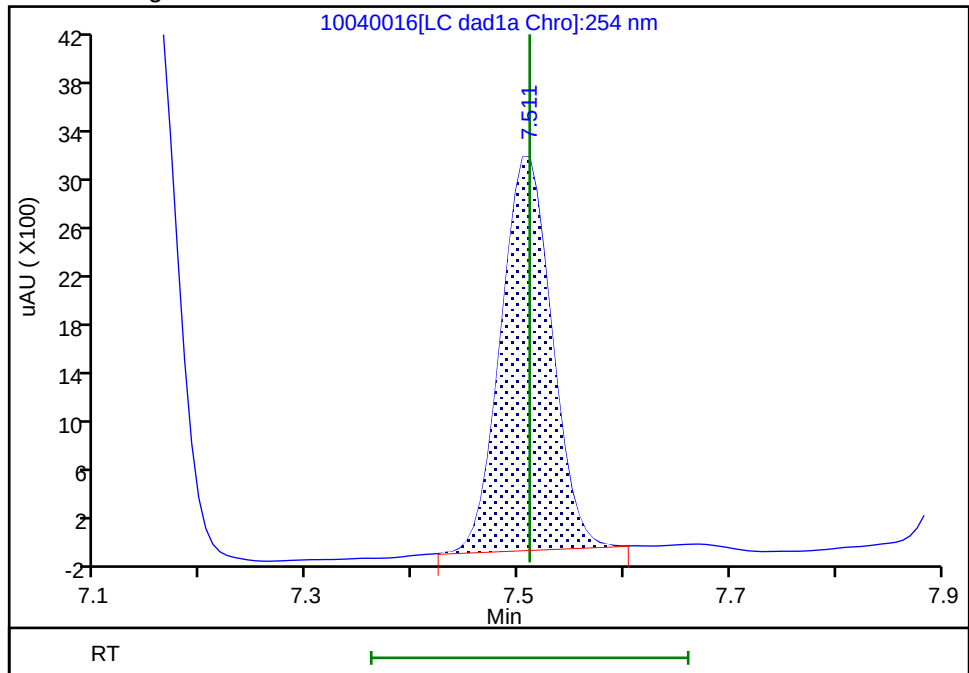
RT: 7.51
Area: 11085
Amount: 0.100964
Amount Units: ug/mL

Processing Integration Results



RT: 7.51
Area: 10773
Amount: 0.101109
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:02:47 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 4

Client ID:

Operator ID: JZ

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

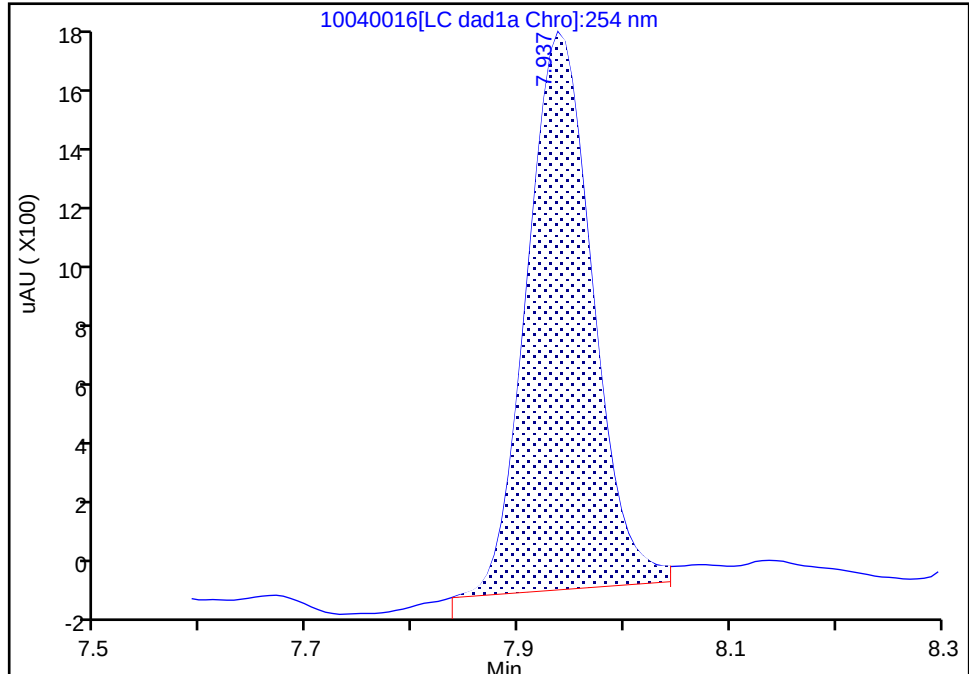
LC DAD1B, 254 nm

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

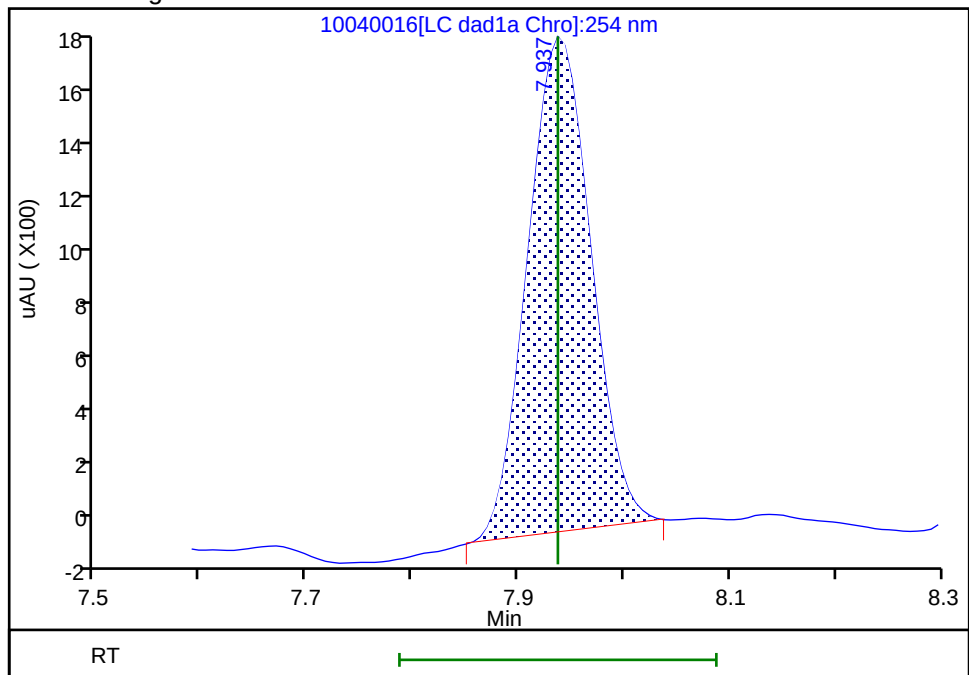
RT: 7.94
Area: 7772
Amount: 0.095498
Amount Units: ug/mL

Processing Integration Results



RT: 7.94
Area: 7391
Amount: 0.097989
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:02:51 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 4

Client ID:

Operator ID: JZ

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

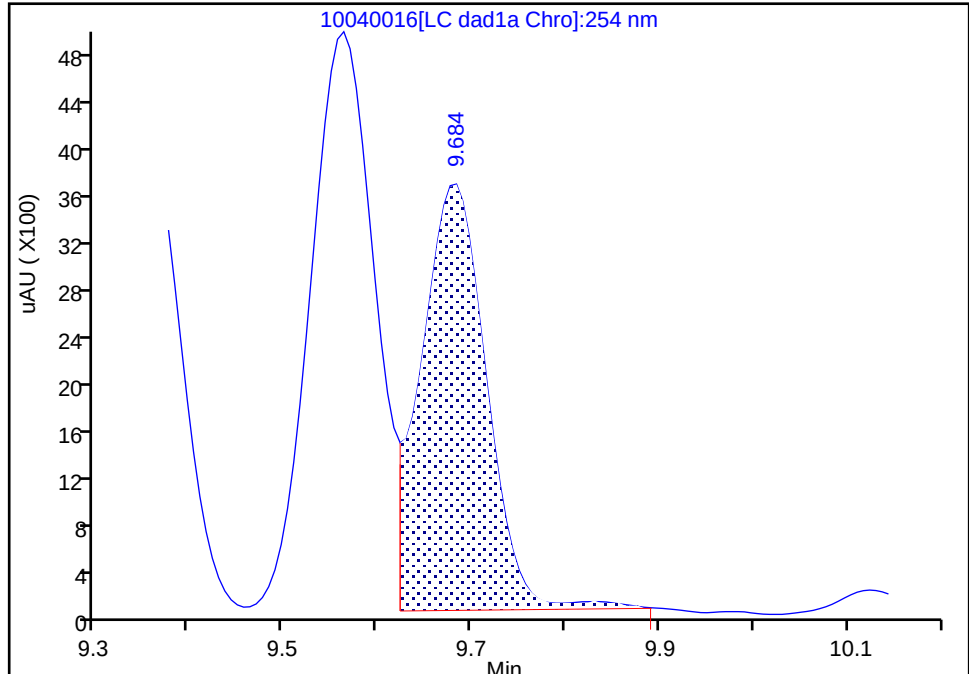
LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8

Signal: 1

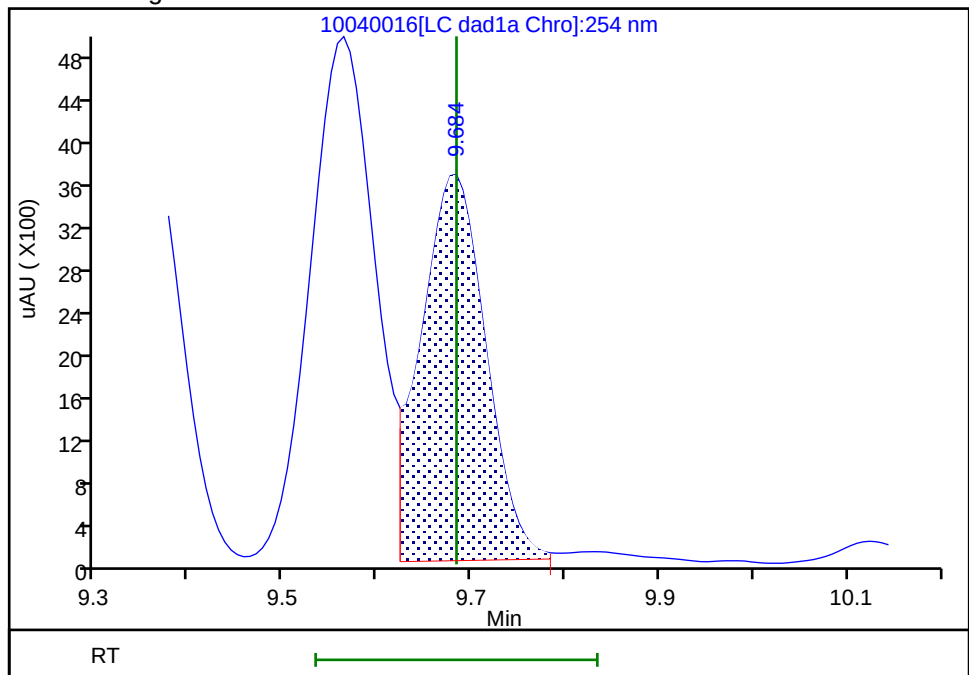
RT: 9.68
Area: 17446
Amount: 0.103129
Amount Units: ug/mL

Processing Integration Results



RT: 9.68
Area: 17130
Amount: 0.100694
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:03:04 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

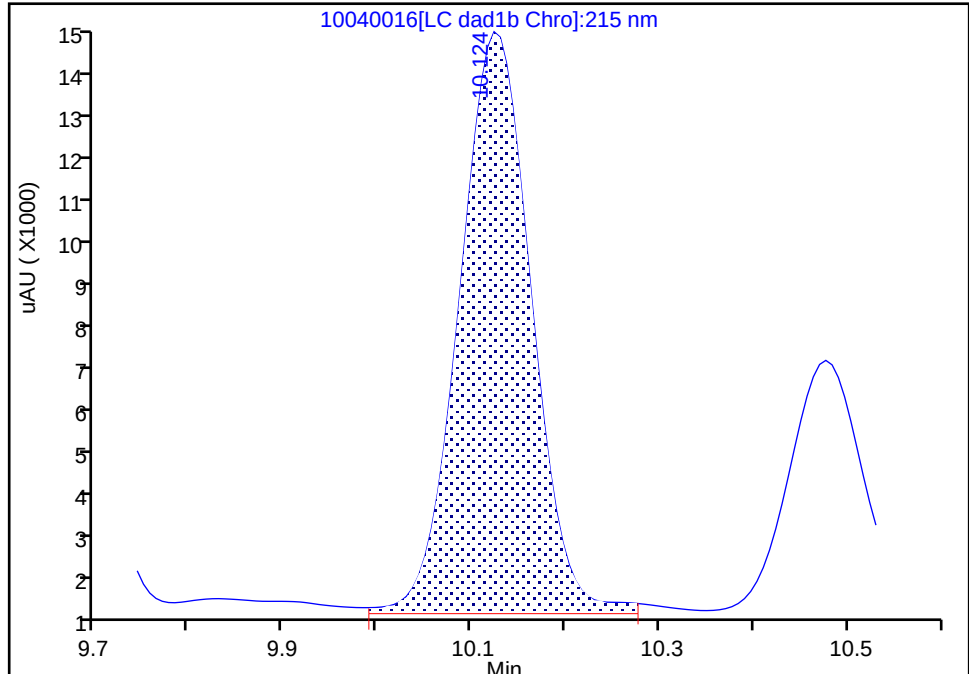
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

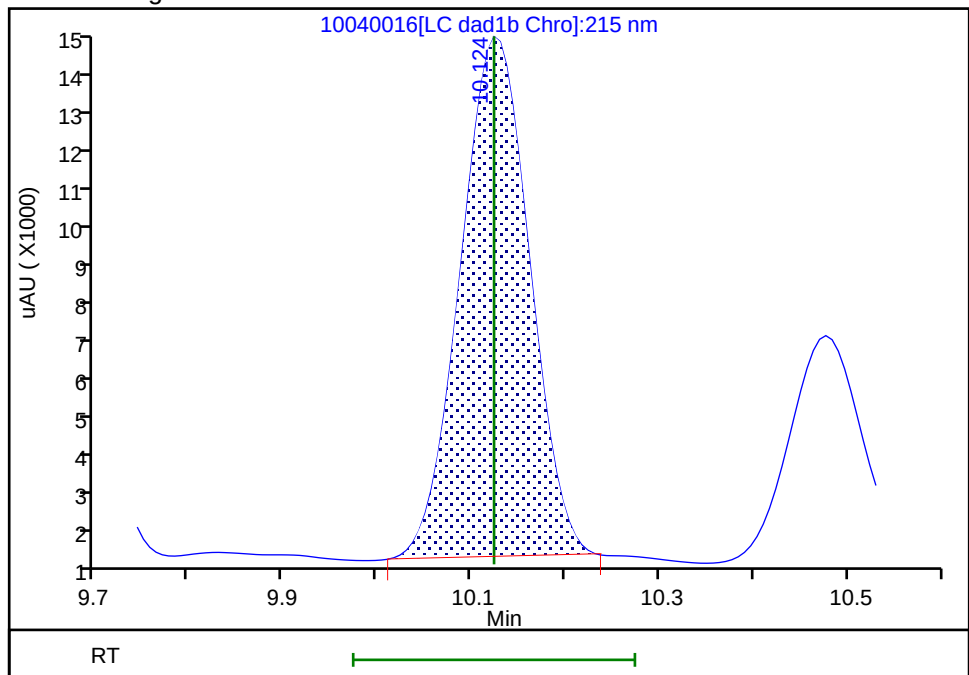
RT: 10.12
Area: 67088
Amount: 0.959514
Amount Units: ug/mL

Processing Integration Results



RT: 10.12
Area: 63200
Amount: 0.986772
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:03:11 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

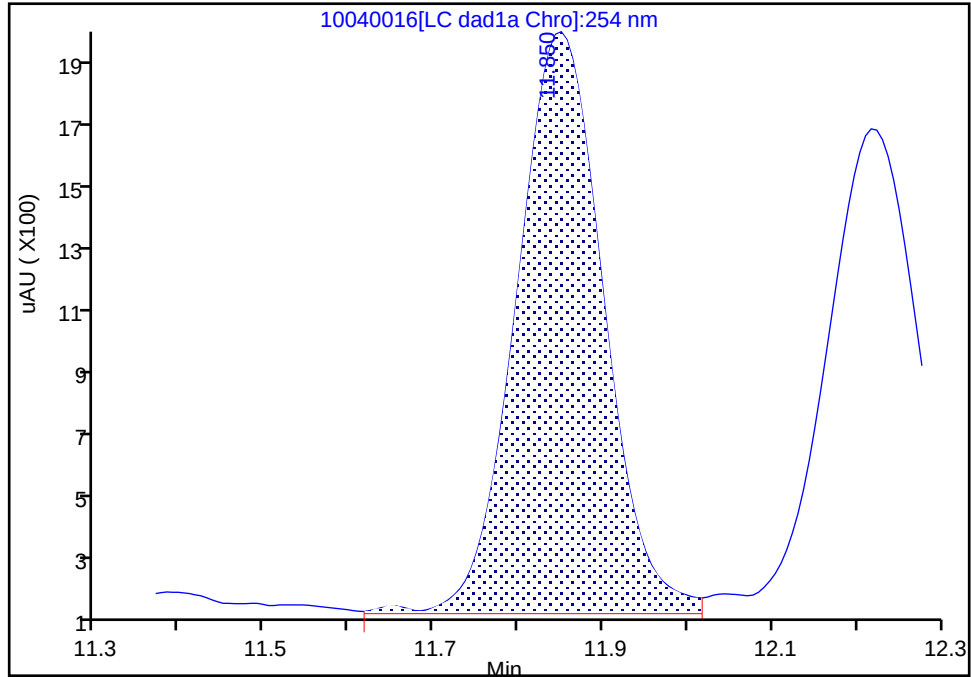
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

22 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

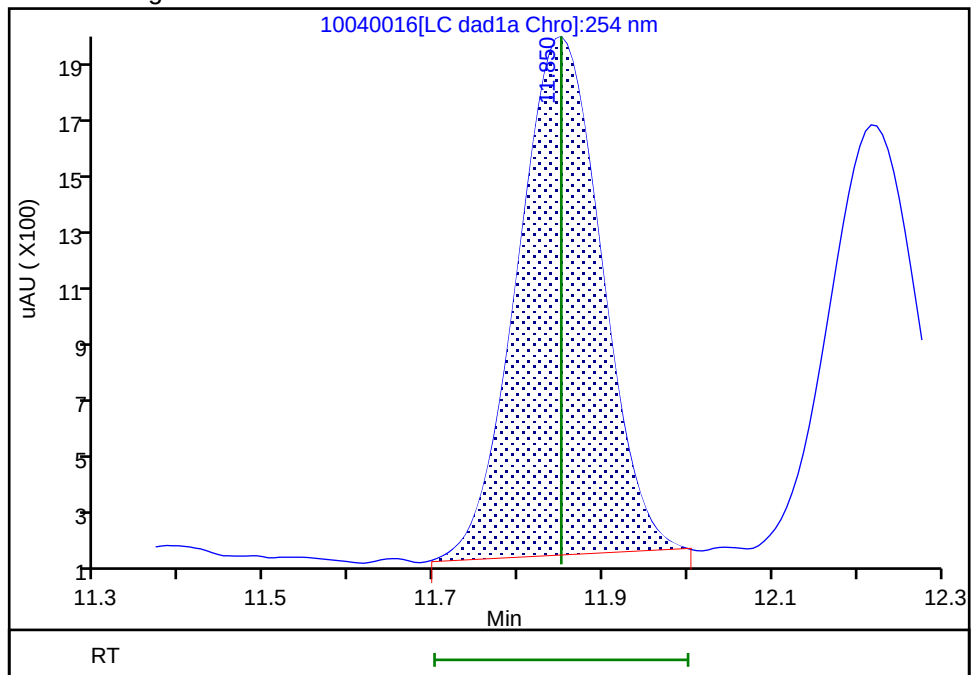
RT: 11.85
Area: 13314
Amount: 0.103639
Amount Units: ug/mL

Processing Integration Results



RT: 11.85
Area: 12487
Amount: 0.099523
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:03:36 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 4

Client ID:

Operator ID: JZ

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

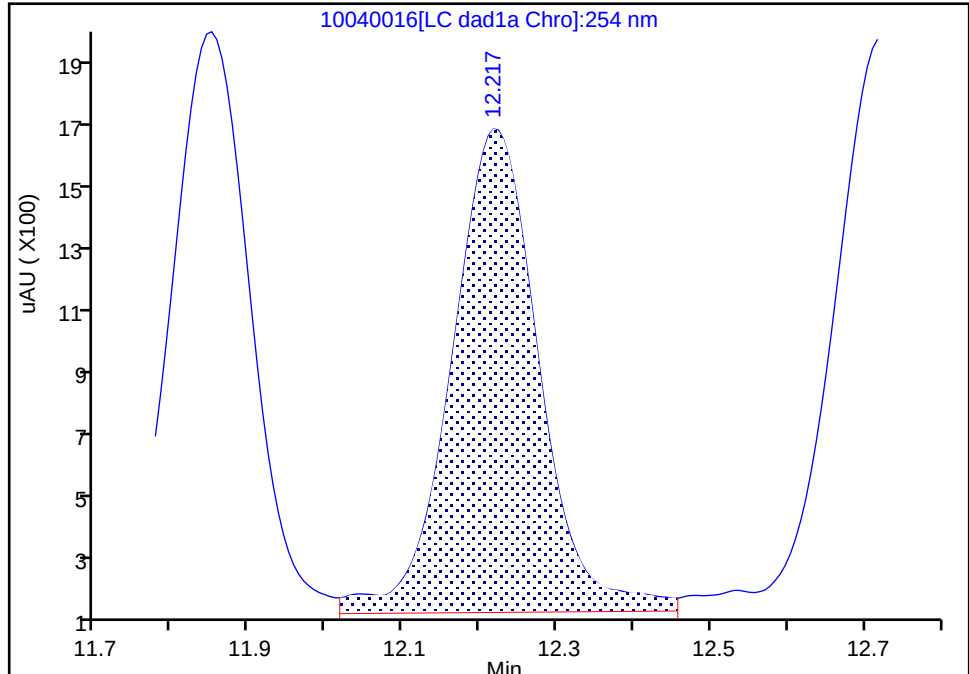
LC DAD1B, 254 nm

23 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

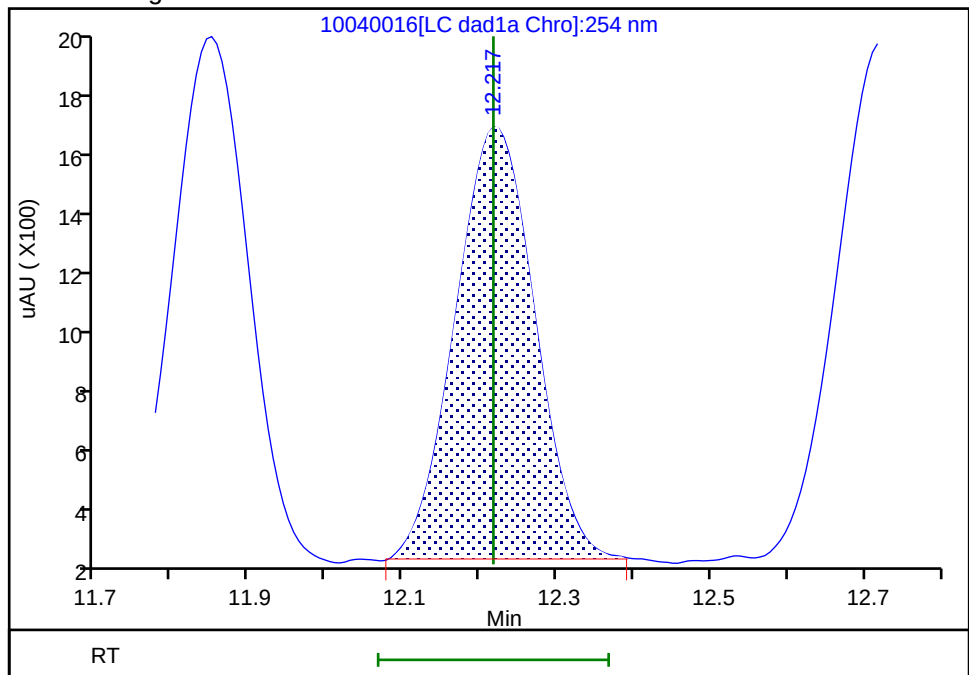
RT: 12.22
Area: 12196
Amount: 0.107960
Amount Units: ug/mL

Processing Integration Results



RT: 12.22
Area: 10624
Amount: 0.096993
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:03:40 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d

Injection Date: 04-Oct-2024 18:49:07

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 4

Client ID:

Operator ID: JZ

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

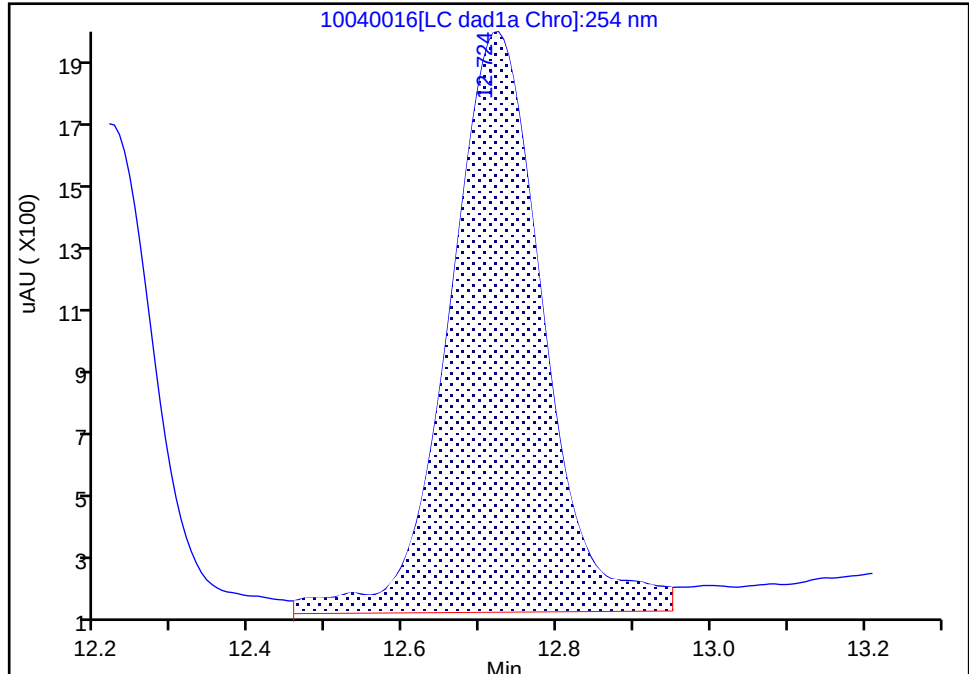
LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

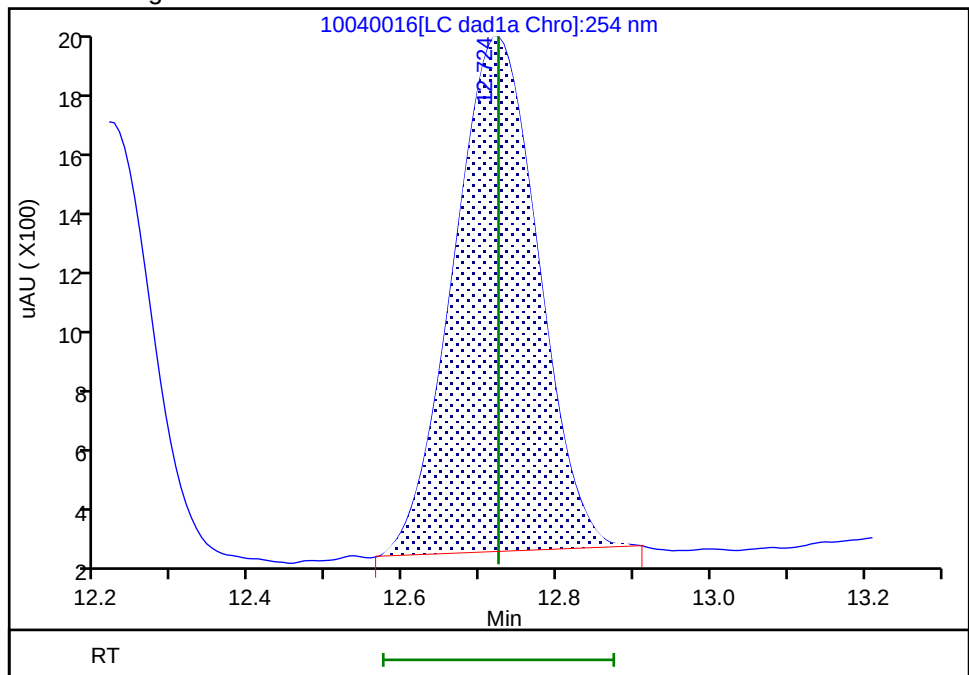
RT: 12.72
Area: 15464
Amount: 0.107416
Amount Units: ug/mL

Processing Integration Results



RT: 12.72
Area: 13345
Amount: 0.096915
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:03:43 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

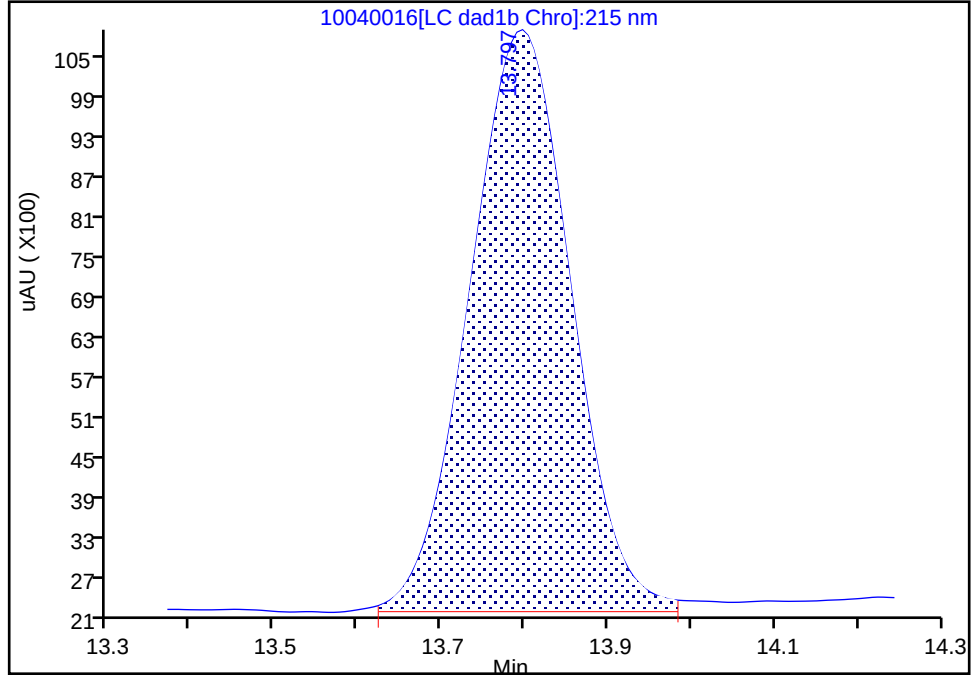
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040016.d
Injection Date: 04-Oct-2024 18:49:07 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

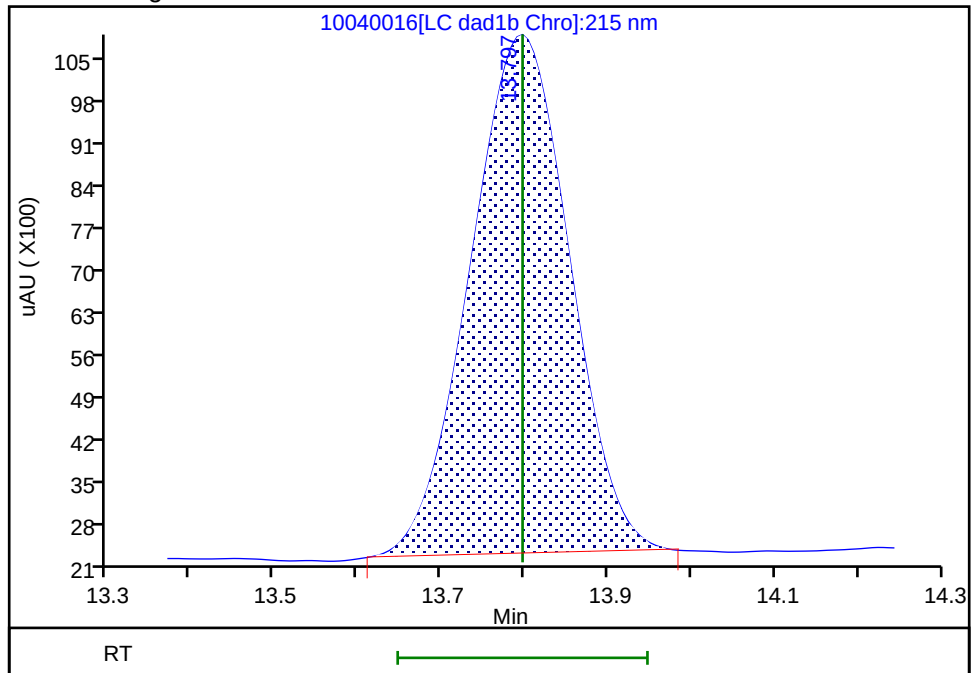
RT: 13.80
Area: 74197
Amount: 1.031477
Amount Units: ug/mL

Processing Integration Results



RT: 13.80
Area: 71766
Amount: 0.993819
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040017.D
 Lims ID: IC INT/DMT 3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 04-Oct-2024 19:11:05 ALS Bottle#: 17 Worklist Smp#: 17
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 3
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:21 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:05:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.437	-0.003	10367	0.0502	0.0510	M
4 HMX	1	6.574	6.577	-0.003	4979	0.0500	0.0515	M
6 DNx	1	6.747	6.751	-0.004	7313	0.0501	0.0501	M
7 MNx	1	7.154	7.151	0.003	7700	0.0584	0.0579	M
8 RDX	1	7.507	7.511	-0.004	5386	0.0500	0.0497	M
9 2,4,6-Trinitrophenol	1	7.941	7.937	0.004	3807	0.0500	0.0505	M
\$ 10 1,2-Dinitrobenzene	1	8.374	8.377	-0.003	6795	0.0500	0.0521	M
11 1,3,5-Trinitrobenzene	1	8.474	8.477	-0.003	11696	0.0500	0.0538	M
12 1,3-Dinitrobenzene	1	9.034	9.037	-0.003	15058	0.0500	0.0505	
13 Nitrobenzene	1	9.354	9.357	-0.003	9801	0.0500	0.0502	
14 3,5-Dinitroaniline	1	9.561	9.564	-0.003	11561	0.0500	0.0499	
15 Tetryl	1	9.681	9.684	-0.003	8562	0.0500	0.0507	
16 Nitroglycerin	2	10.121	10.124	-0.003	32159	0.5000	0.5052	M
17 2,4,6-Trinitrotoluene	1	10.474	10.477	-0.003	10944	0.0500	0.0504	
18 4-Amino-2,6-dinitrotoluene	1	10.634	10.637	-0.003	7751	0.0500	0.0496	
19 2-Amino-4,6-dinitrotoluene	1	10.861	10.864	-0.003	10249	0.0500	0.0501	
20 2,6-Dinitrotoluene	1	11.001	11.004	-0.003	7345	0.0500	0.0510	
21 2,4-Dinitrotoluene	1	11.154	11.150	0.004	14328	0.0500	0.0491	
22 o-Nitrotoluene	1	11.847	11.850	-0.003	6473	0.0500	0.0516	
23 p-Nitrotoluene	1	12.221	12.217	0.004	5661	0.0500	0.0510	
24 m-Nitrotoluene	1	12.721	12.724	-0.003	6947	0.0500	0.0496	
25 PETN	2	13.794	13.797	-0.003	36348	0.5000	0.5033	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 5.00

Units: uL

8330 DMT_00018

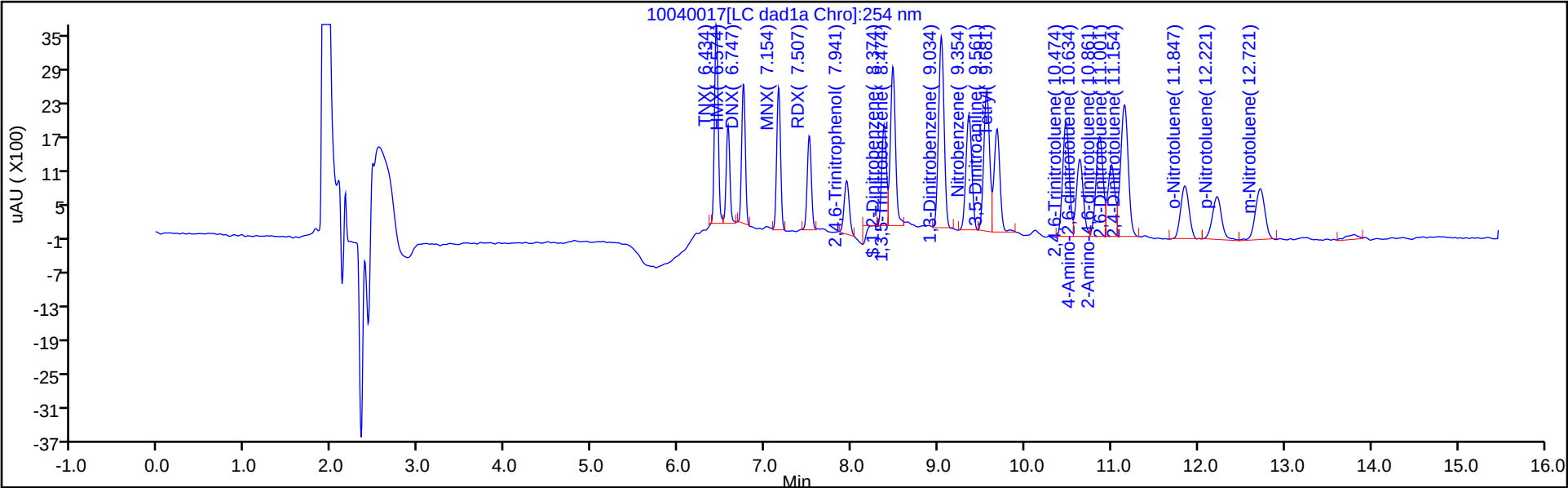
Amount Added: 2.50

Units: uL

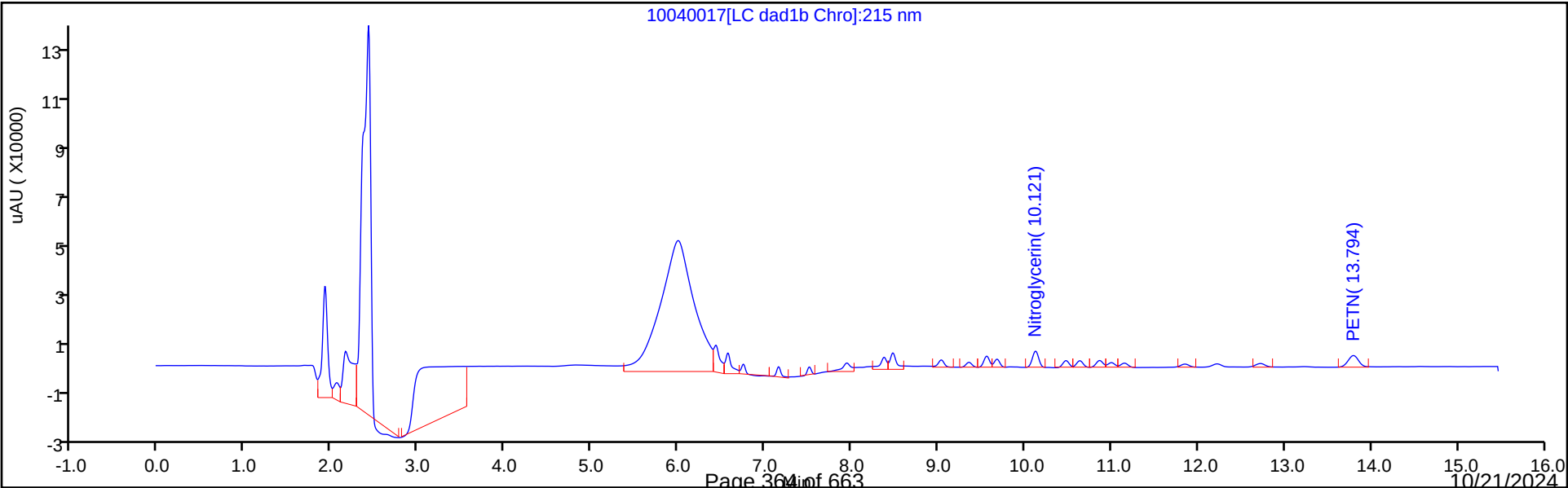
Eurofins Denver
 Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d
 Injection Date: 04-Oct-2024 19:11:05 Instrument ID: CHHPLC_X3
 Lims ID: IC INT/DMT 3
 Client ID:
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: 8330_X3 Limit Group: GCSV - 8330
 Column: UltraCarb5uODS (20) (4.60 mm)

Operator ID: JZ
 Worklist Smp#: 17
 ALS Bottle#: 17

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

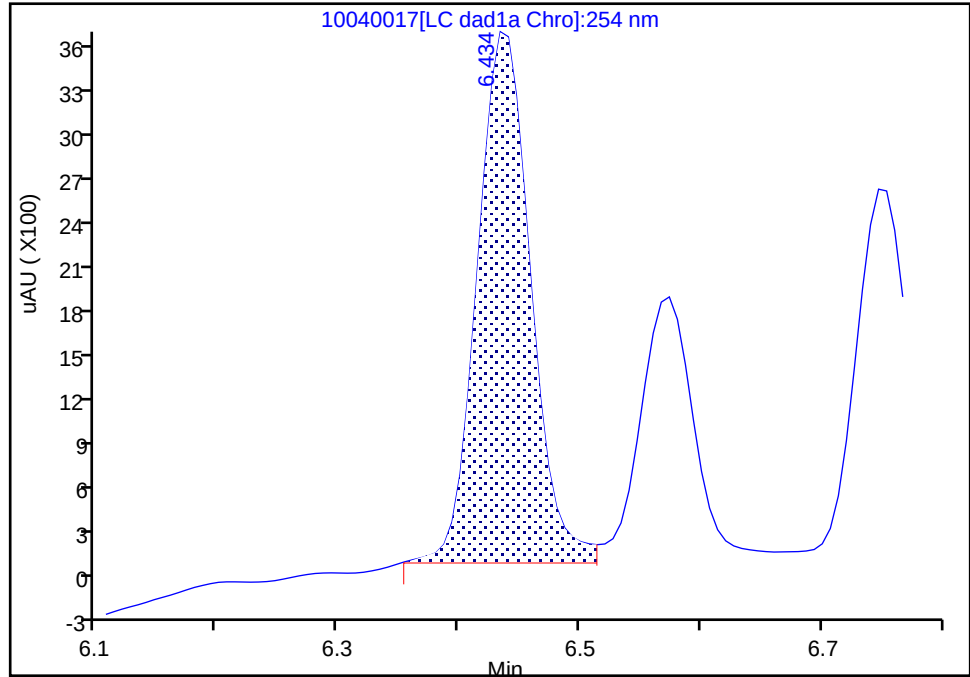
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d
Injection Date: 04-Oct-2024 19:11:05 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

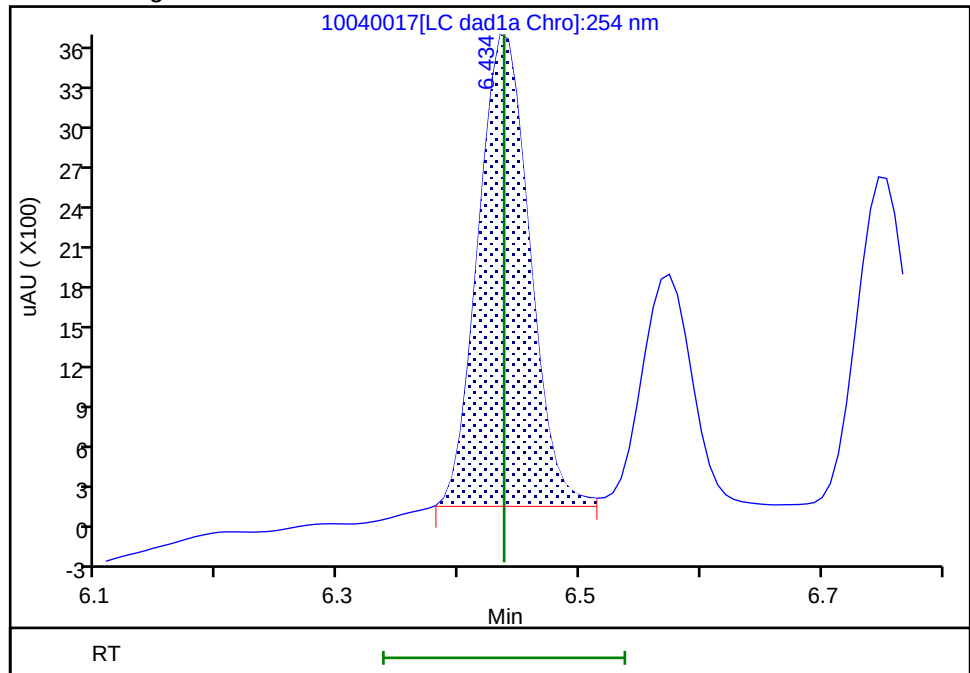
RT: 6.43
Area: 10875
Amount: 0.051607
Amount Units: ug/mL

Processing Integration Results



RT: 6.43
Area: 10367
Amount: 0.051049
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:07 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

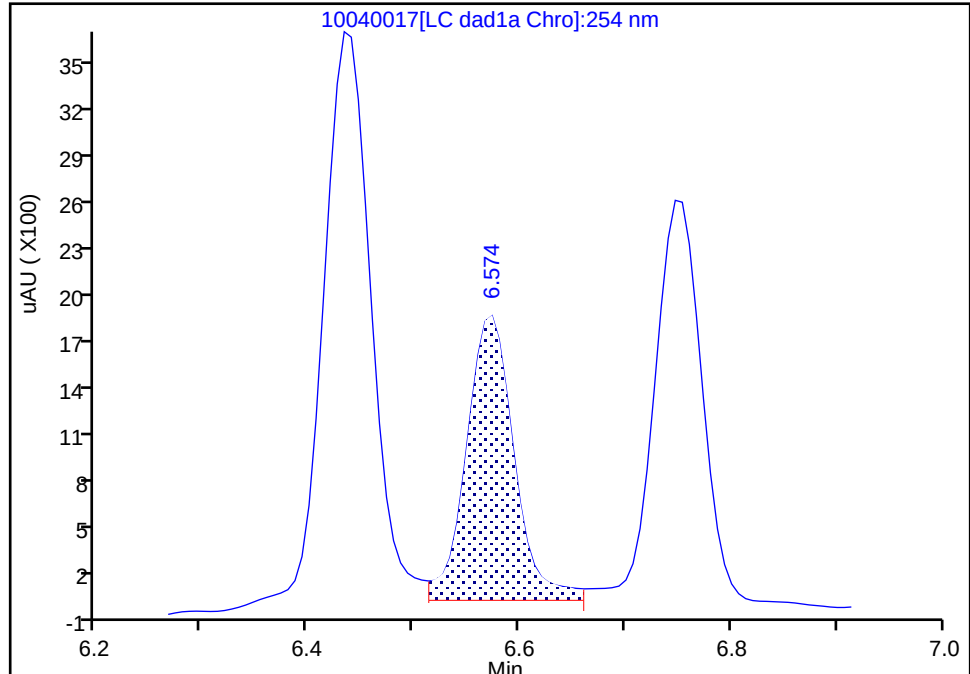
LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

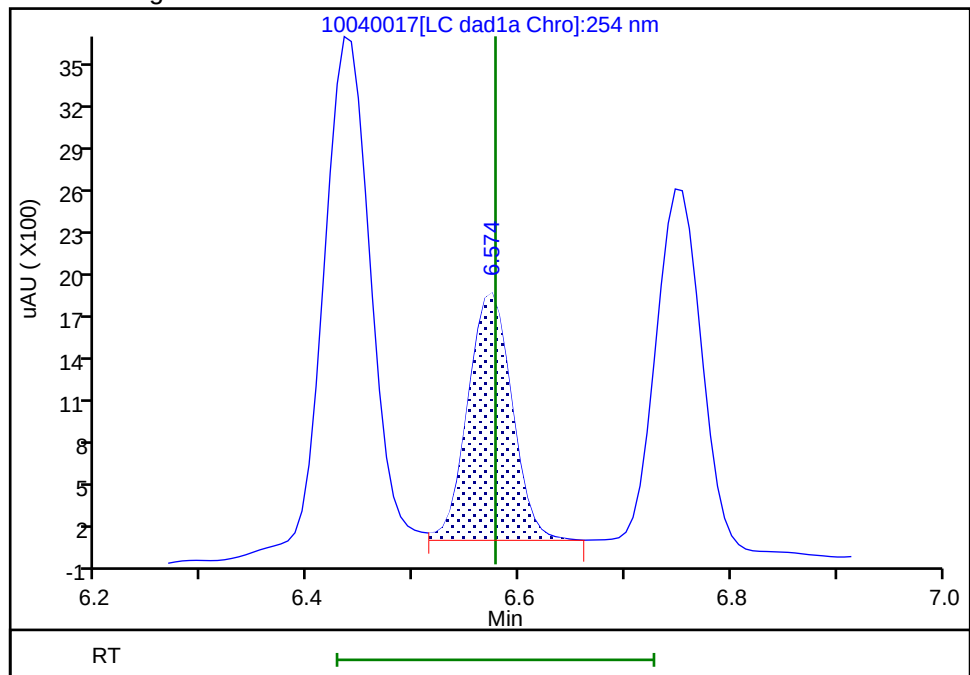
RT: 6.57
Area: 5573
Amount: 0.051766
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 4979
Amount: 0.051514
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:03 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

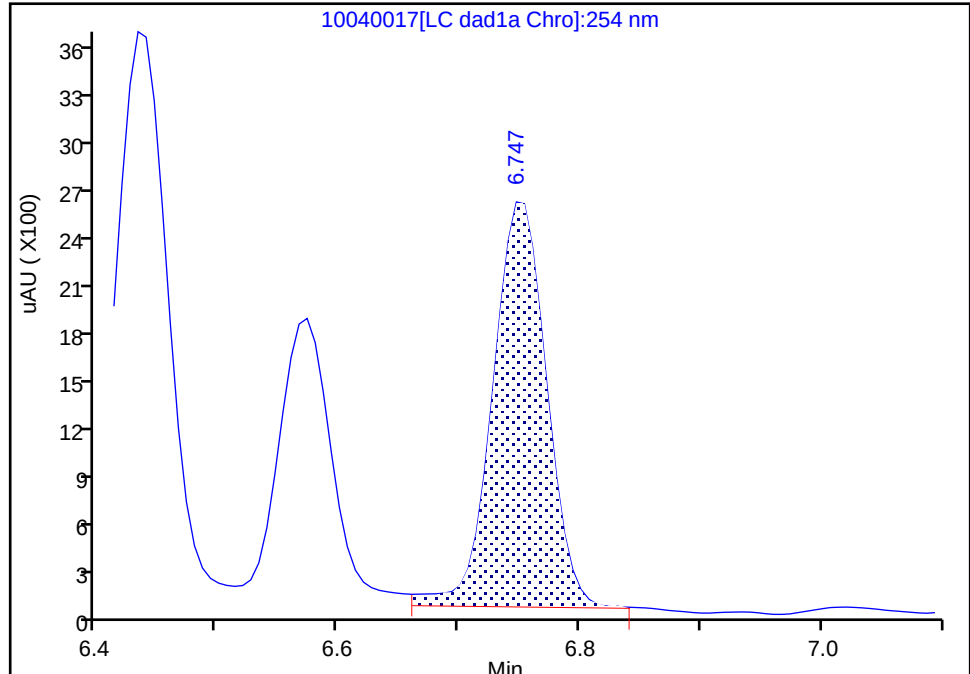
LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

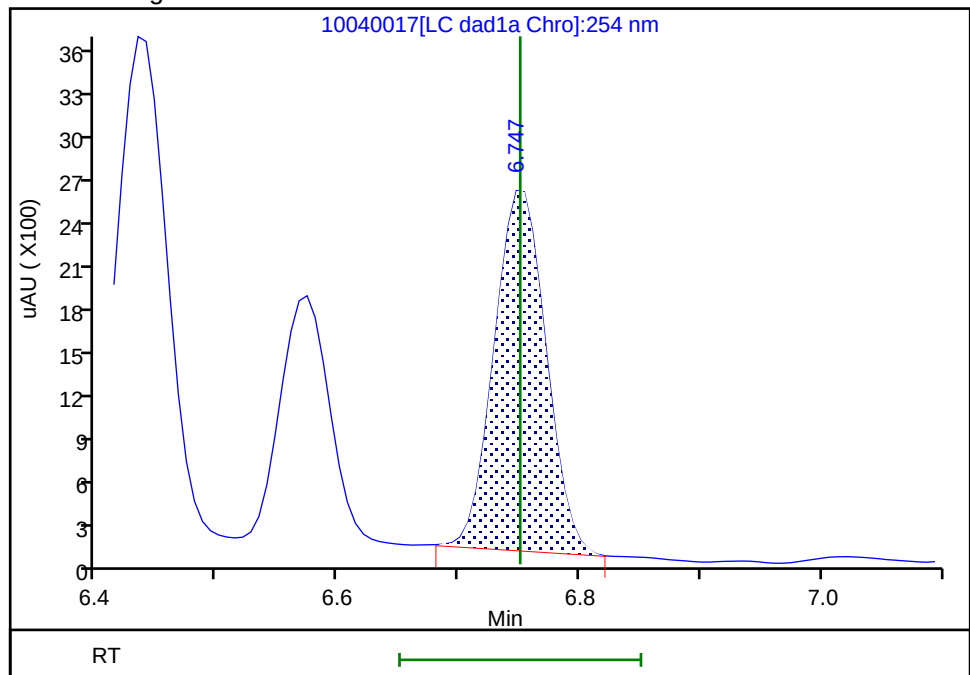
RT: 6.75
Area: 7771
Amount: 0.050925
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 7313
Amount: 0.050075
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:59 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

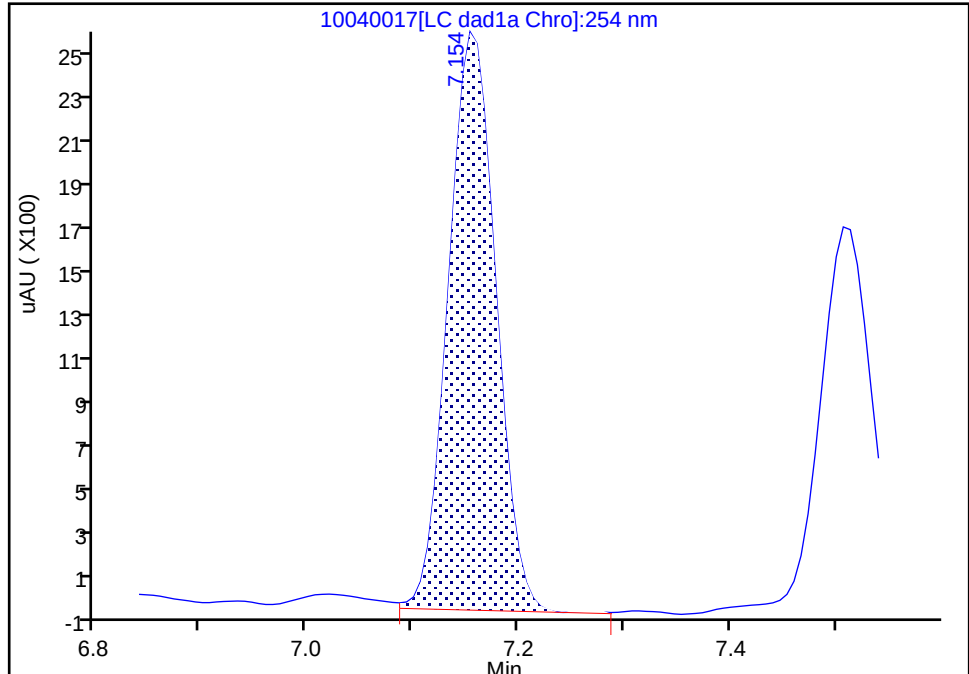
LC DAD1B, 254 nm

7 MNX, CAS: 5755-27-1

Signal: 1

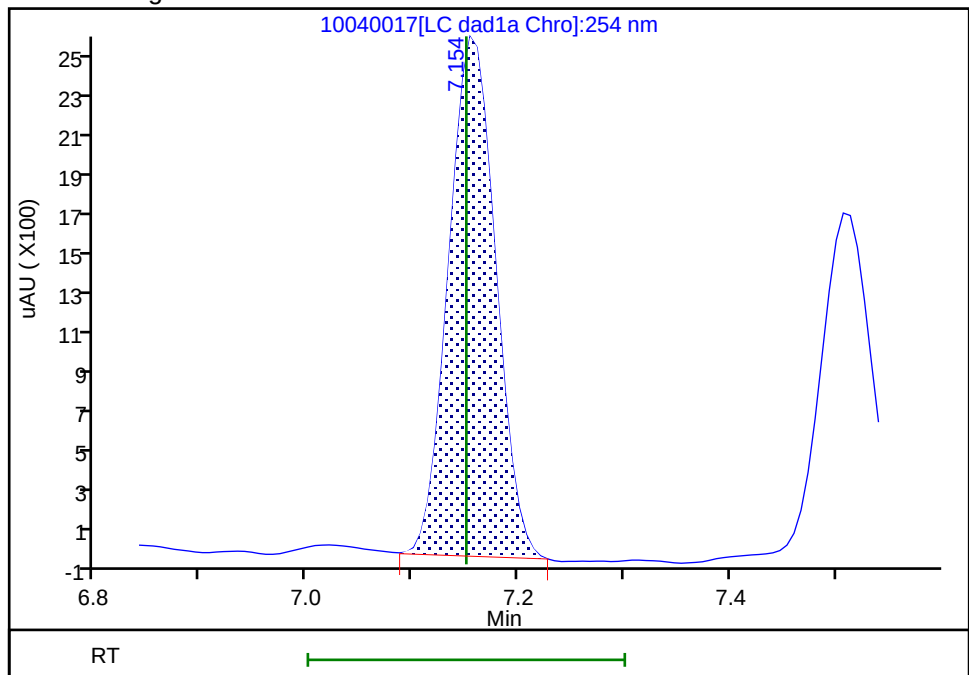
RT: 7.15
Area: 7839
Amount: 0.058573
Amount Units: ug/mL

Processing Integration Results



RT: 7.15
Area: 7700
Amount: 0.057923
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:53 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor:

1.0000

Method: 8330_X3

Limit Group:

GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

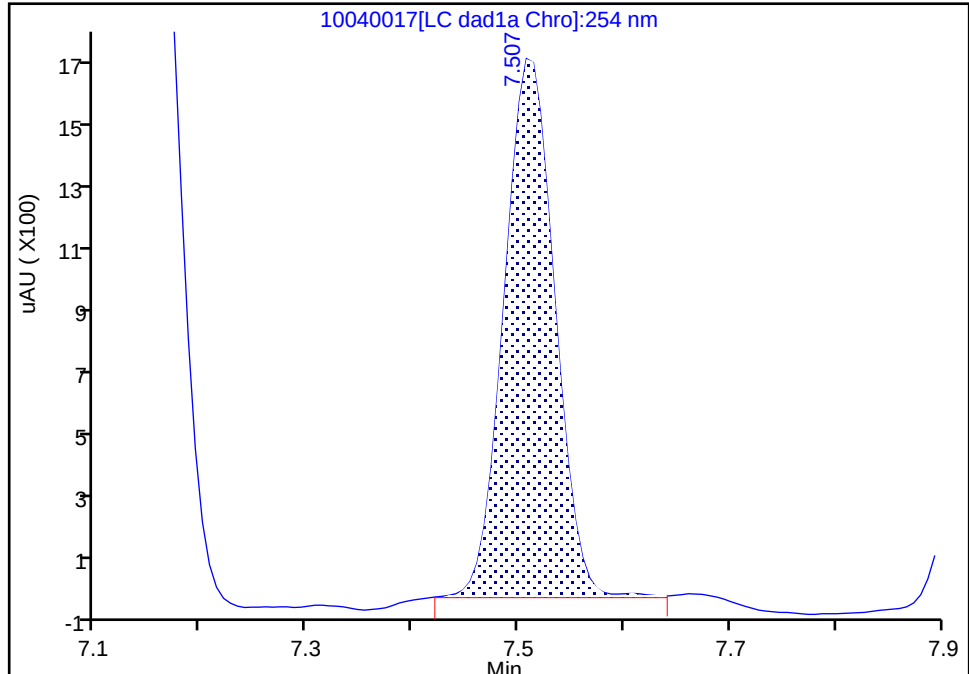
LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

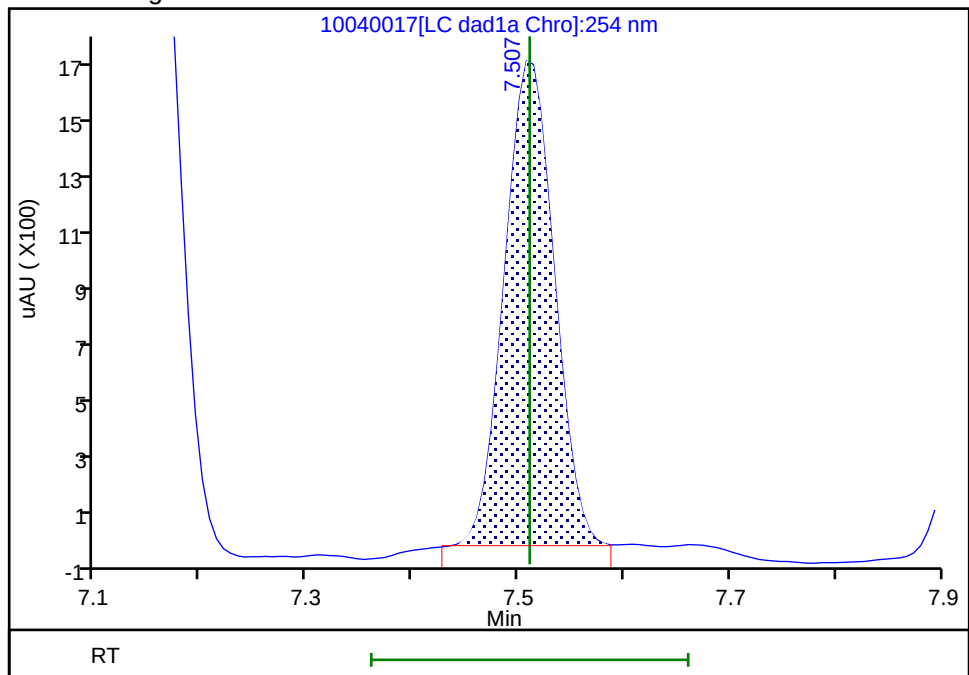
RT: 7.51
Area: 5457
Amount: 0.049860
Amount Units: ug/mL

Processing Integration Results



RT: 7.51
Area: 5386
Amount: 0.049722
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

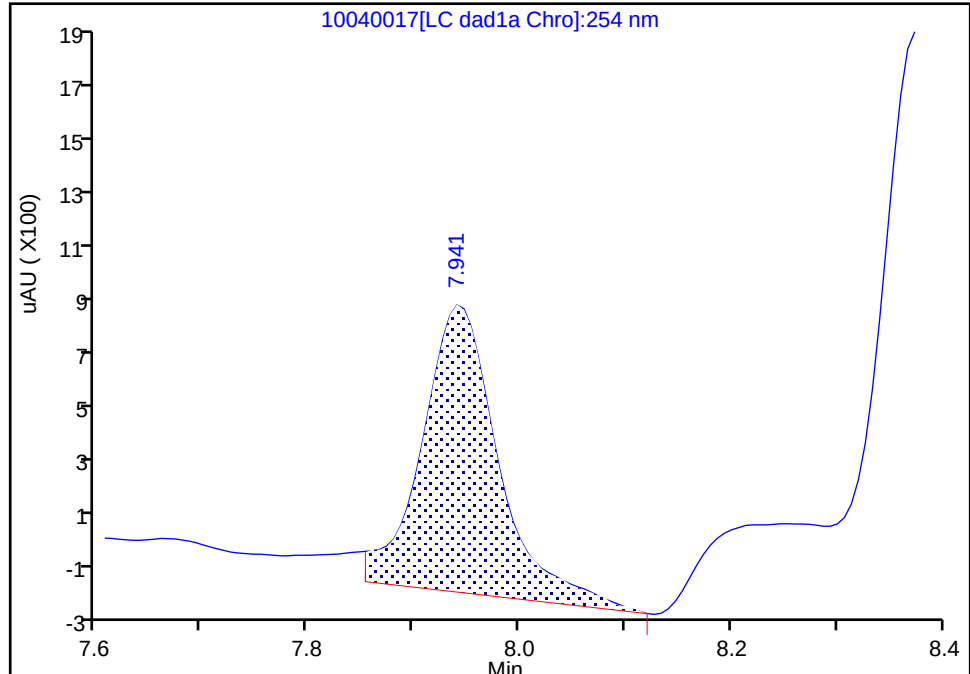
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d
Injection Date: 04-Oct-2024 19:11:05 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

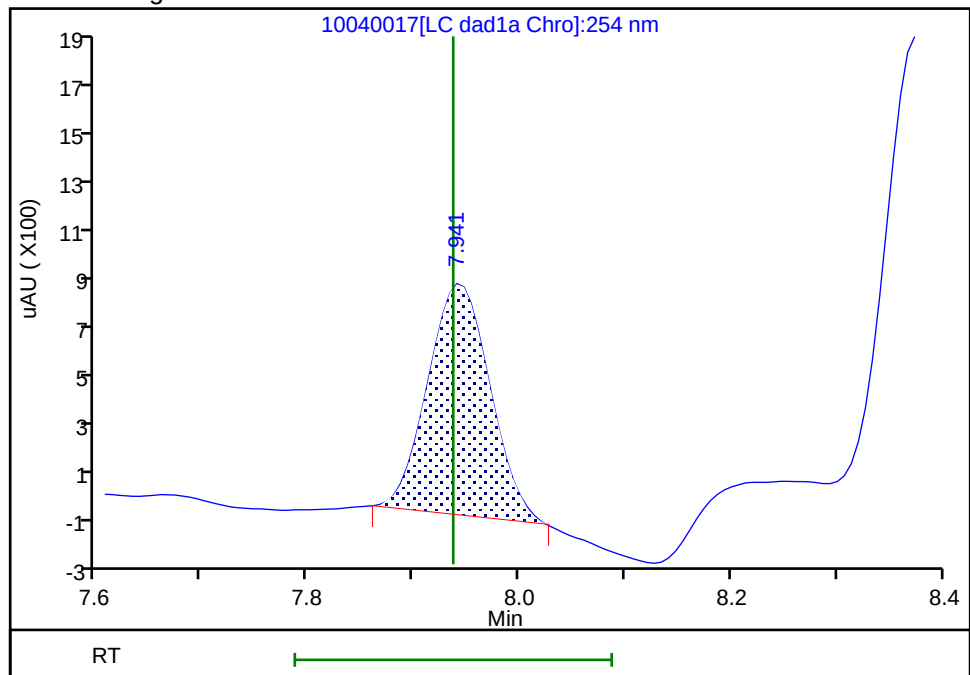
RT: 7.94
Area: 5246
Amount: 0.064797
Amount Units: ug/mL

Processing Integration Results



RT: 7.94
Area: 3807
Amount: 0.050473
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:36 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor:

1.0000

Method: 8330_X3

Limit Group:

GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

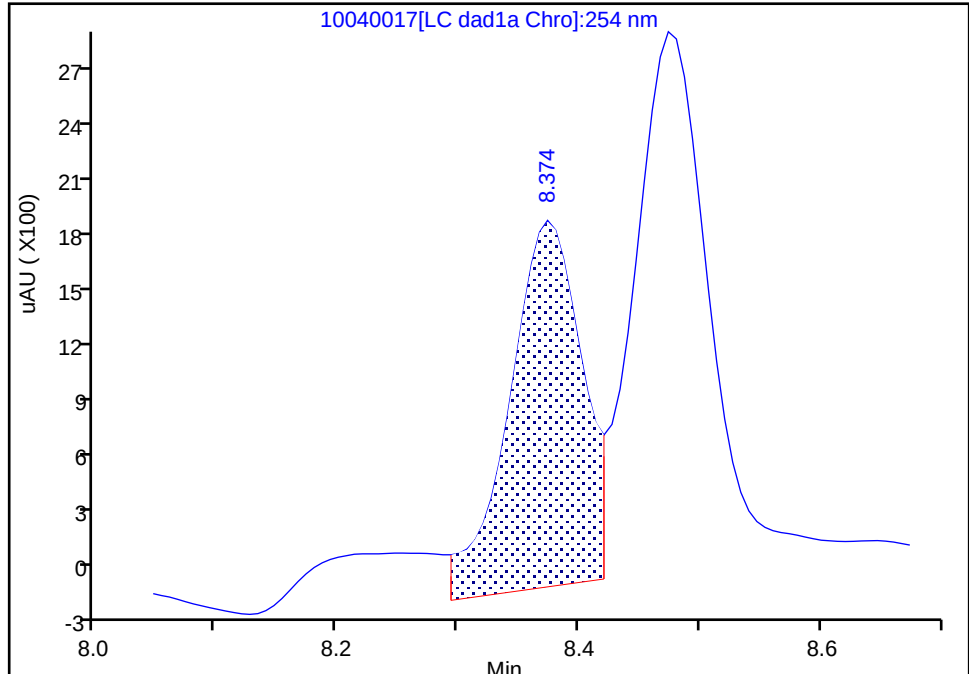
LC DAD1B, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

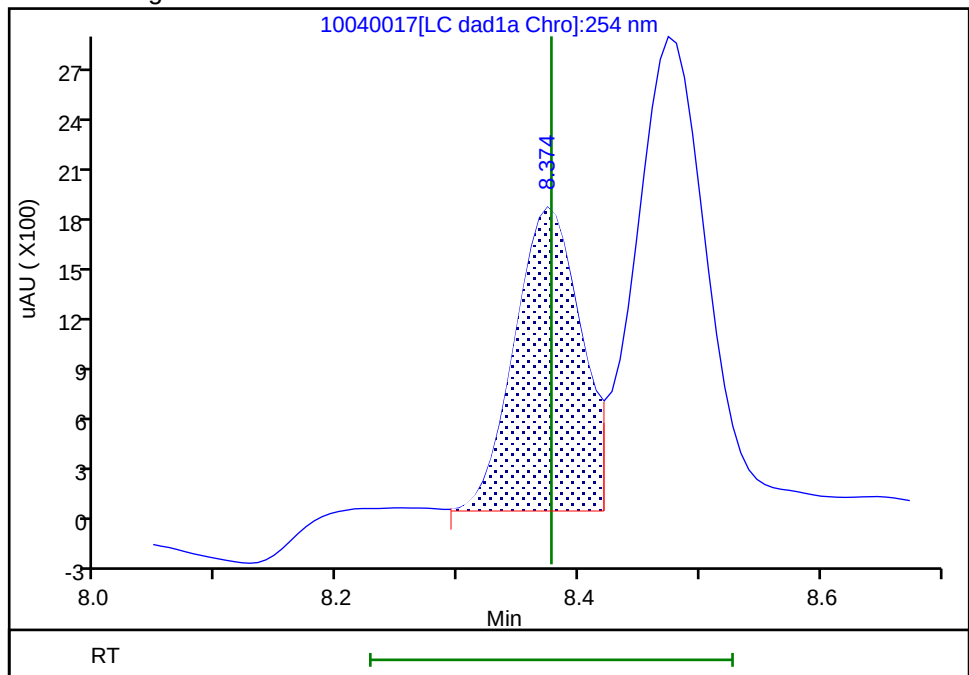
RT: 8.37
Area: 8186
Amount: 0.061318
Amount Units: ug/mL

Processing Integration Results



RT: 8.37
Area: 6795
Amount: 0.052105
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

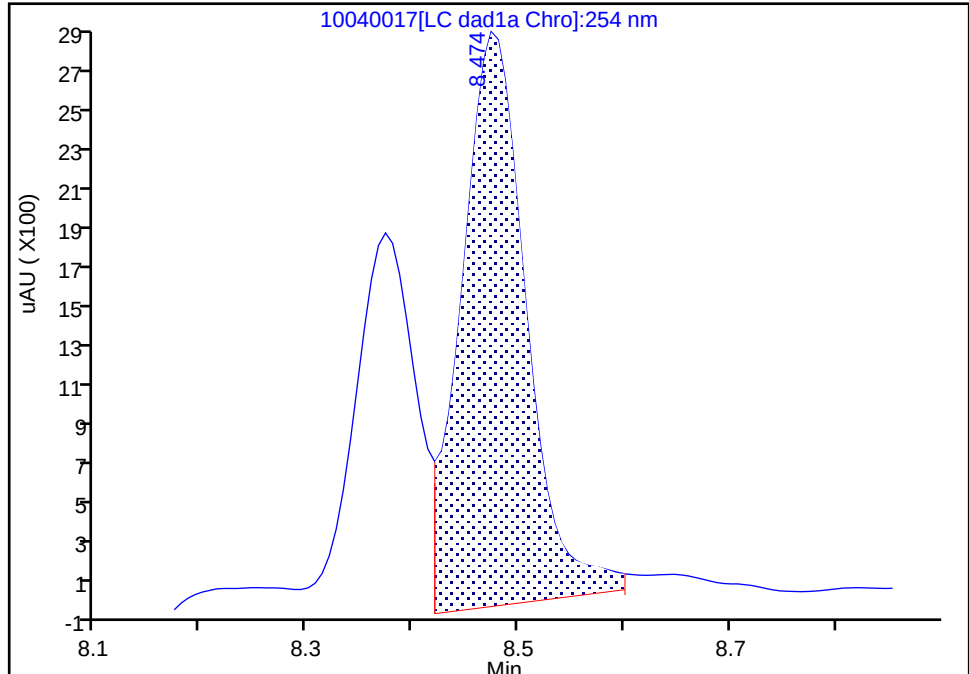
LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

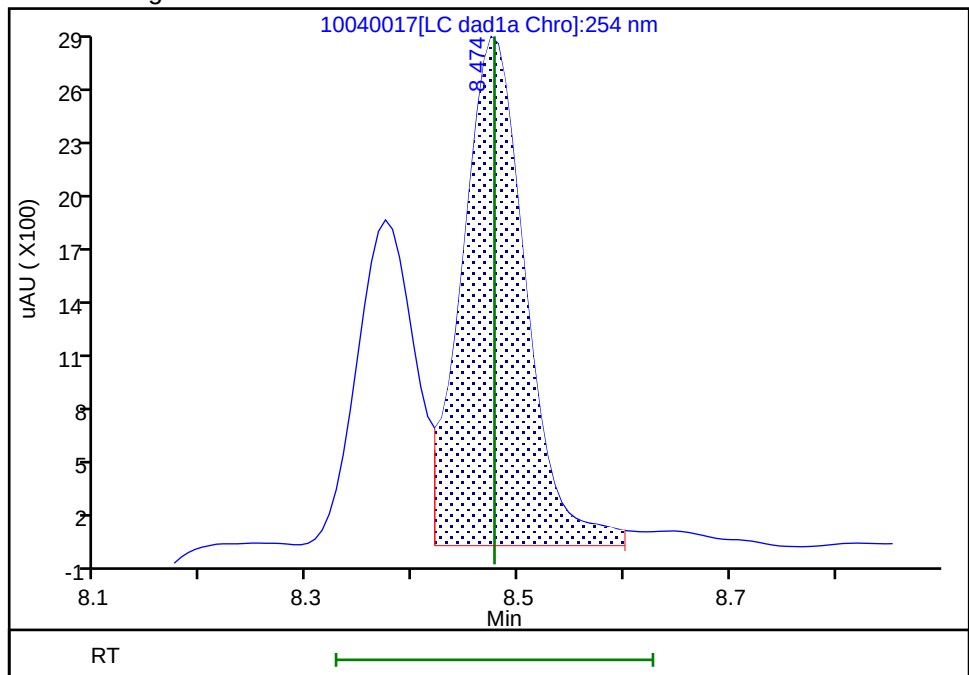
RT: 8.47
Area: 12317
Amount: 0.056311
Amount Units: ug/mL

Processing Integration Results



RT: 8.47
Area: 11696
Amount: 0.053812
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

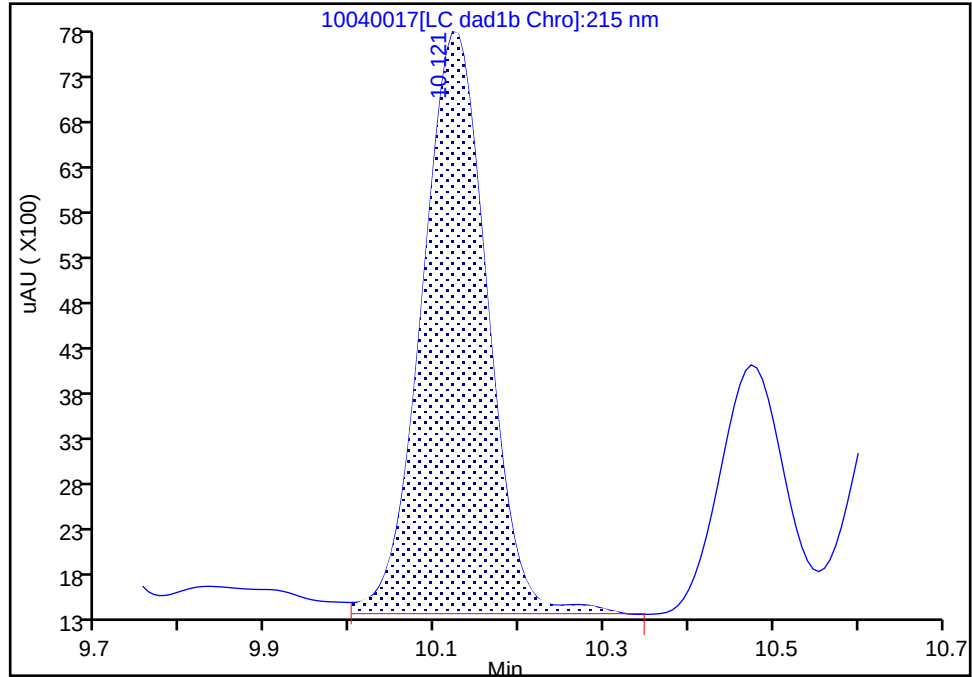
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d
Injection Date: 04-Oct-2024 19:11:05 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

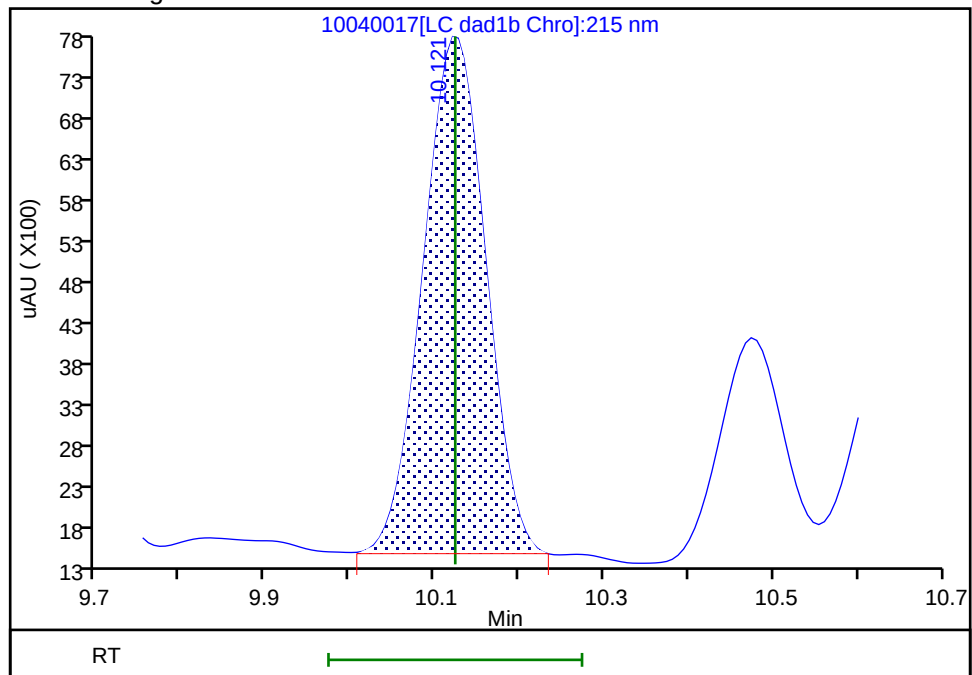
RT: 10.12
Area: 34193
Amount: 0.496918
Amount Units: ug/mL

Processing Integration Results



RT: 10.12
Area: 32159
Amount: 0.505186
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:34 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040017.d

Injection Date: 04-Oct-2024 19:11:05

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 3

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

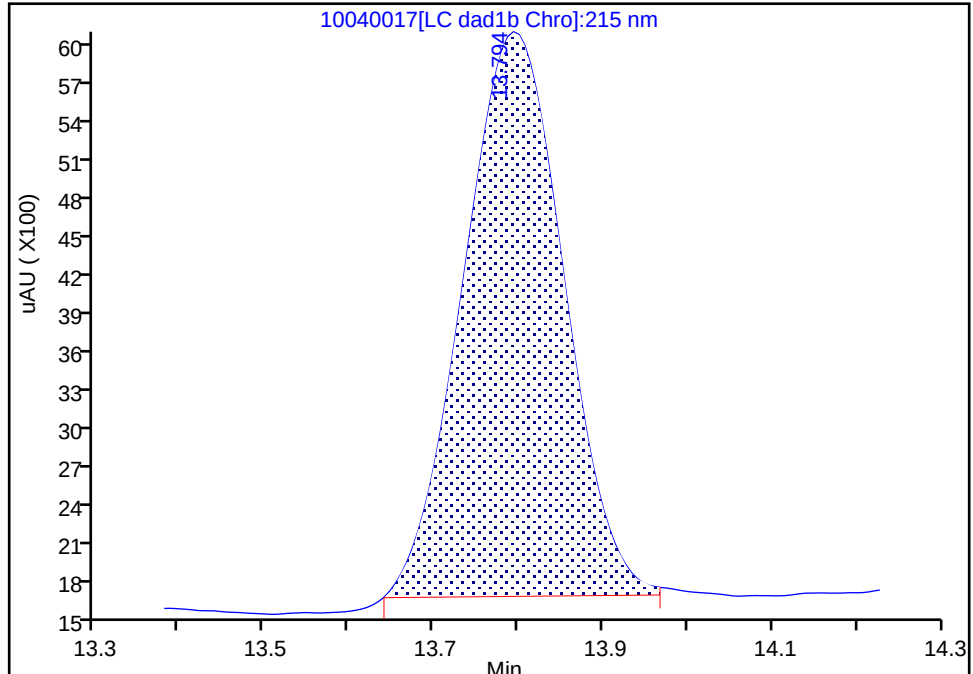
LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

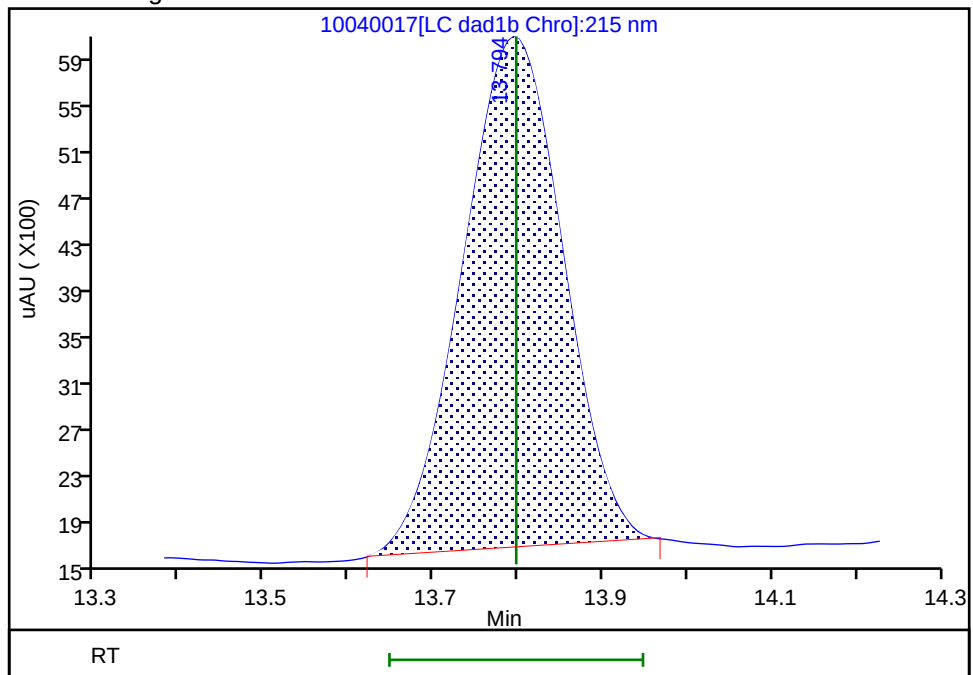
RT: 13.79
Area: 36213
Amount: 0.505564
Amount Units: ug/mL

Processing Integration Results



RT: 13.79
Area: 36348
Amount: 0.503349
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:04:14 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040018.D
 Lims ID: IC INT/DMT 2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 04-Oct-2024 19:33:04 ALS Bottle#: 18 Worklist Smp#: 18
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 2
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:23 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:06:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.433	6.437	-0.004	4020	0.0201	0.0198	M
4 HMX	1	6.573	6.577	-0.004	2125	0.0200	0.0220	M
6 DNx	1	6.747	6.751	-0.004	2804	0.0200	0.0192	M
7 MNx	1	7.153	7.151	0.002	2958	0.0233	0.0223	M
8 RDX	1	7.507	7.511	-0.004	2098	0.0200	0.0184	M
9 2,4,6-Trinitrophenol	1	7.940	7.937	0.003	1559	0.0200	0.0207	M
\$ 10 1,2-Dinitrobenzene	1	8.373	8.377	-0.004	2530	0.0200	0.0194	
11 1,3,5-Trinitrobenzene	1	8.473	8.477	-0.004	4281	0.0200	0.0197	
12 1,3-Dinitrobenzene	1	9.033	9.037	-0.004	6054	0.0200	0.0203	
13 Nitrobenzene	1	9.353	9.357	-0.004	3904	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.560	9.564	-0.004	4665	0.0200	0.0203	
15 Tetryl	1	9.680	9.684	-0.004	3103	0.0200	0.0188	
16 Nitroglycerin	2	10.127	10.124	0.003	12143	0.2000	0.1946	M
17 2,4,6-Trinitrotoluene	1	10.473	10.477	-0.004	4382	0.0200	0.0202	
18 4-Amino-2,6-dinitrotoluene	1	10.640	10.637	0.003	3357	0.0200	0.0190	
19 2-Amino-4,6-dinitrotoluene	1	10.867	10.864	0.003	4224	0.0200	0.0207	
20 2,6-Dinitrotoluene	1	11.007	11.004	0.003	2929	0.0200	0.0195	
21 2,4-Dinitrotoluene	1	11.153	11.150	0.003	5927	0.0200	0.0203	
22 o-Nitrotoluene	1	11.847	11.850	-0.003	2411	0.0200	0.0192	
23 p-Nitrotoluene	1	12.220	12.217	0.003	2343	0.0200	0.0203	
24 m-Nitrotoluene	1	12.713	12.724	-0.011	2992	0.0200	0.0203	
25 PETN	2	13.787	13.797	-0.010	13772	0.2000	0.1907	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00083

Amount Added: 2.00

Units: uL

8330 DMT_00018

Amount Added: 1.00

Units: uL

Report Date: 08-Oct-2024 13:19:23

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d

Injection Date: 04-Oct-2024 19:33:04

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 2

Worklist Smp#: 18

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

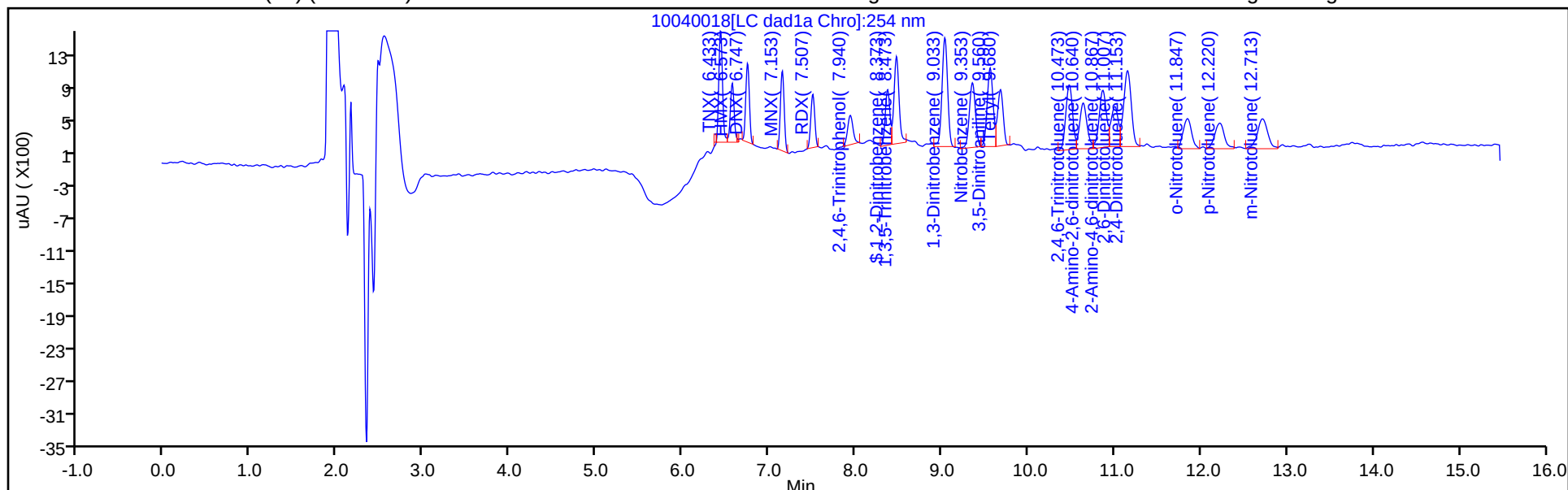
ALS Bottle#: 18

Method: 8330_X3

Limit Group: GCSV - 8330

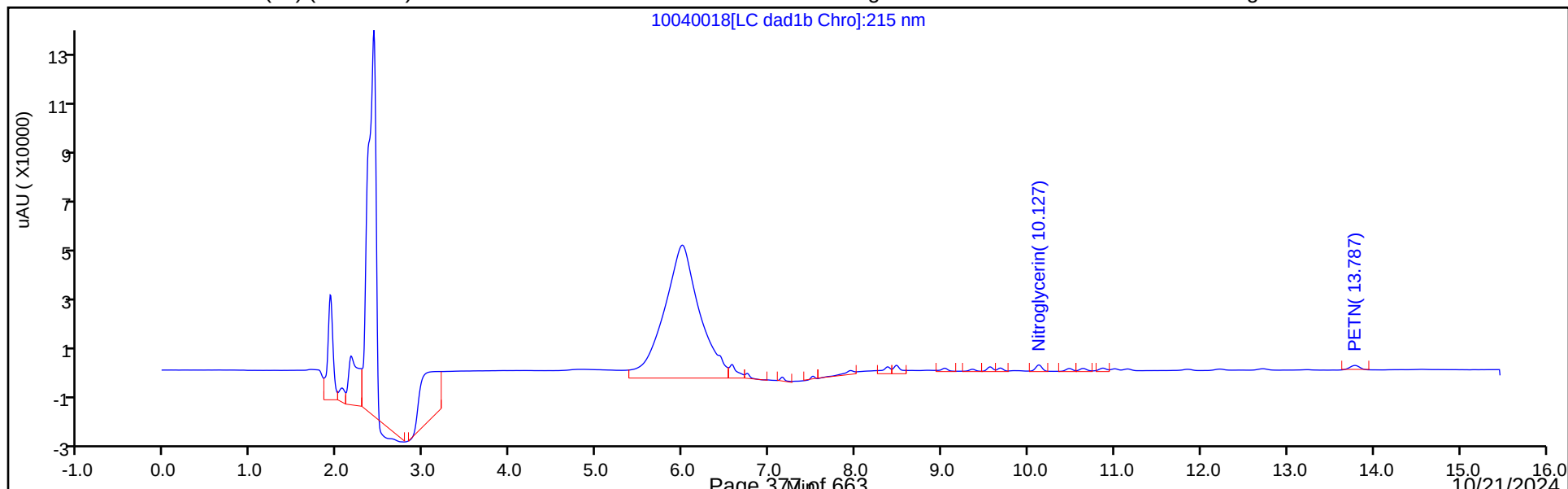
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

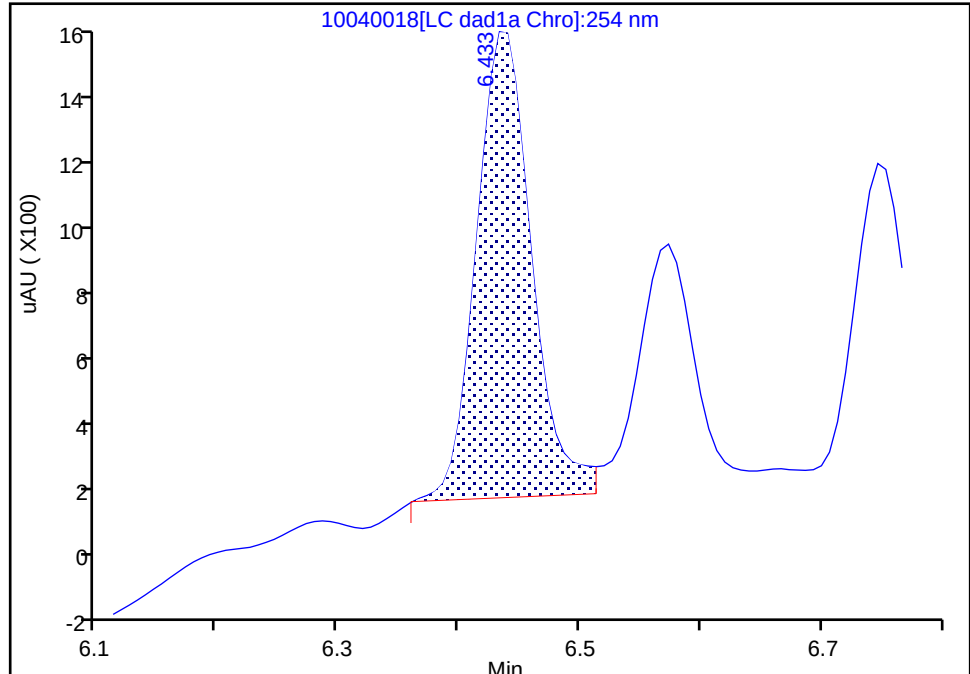
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d
Injection Date: 04-Oct-2024 19:33:04 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

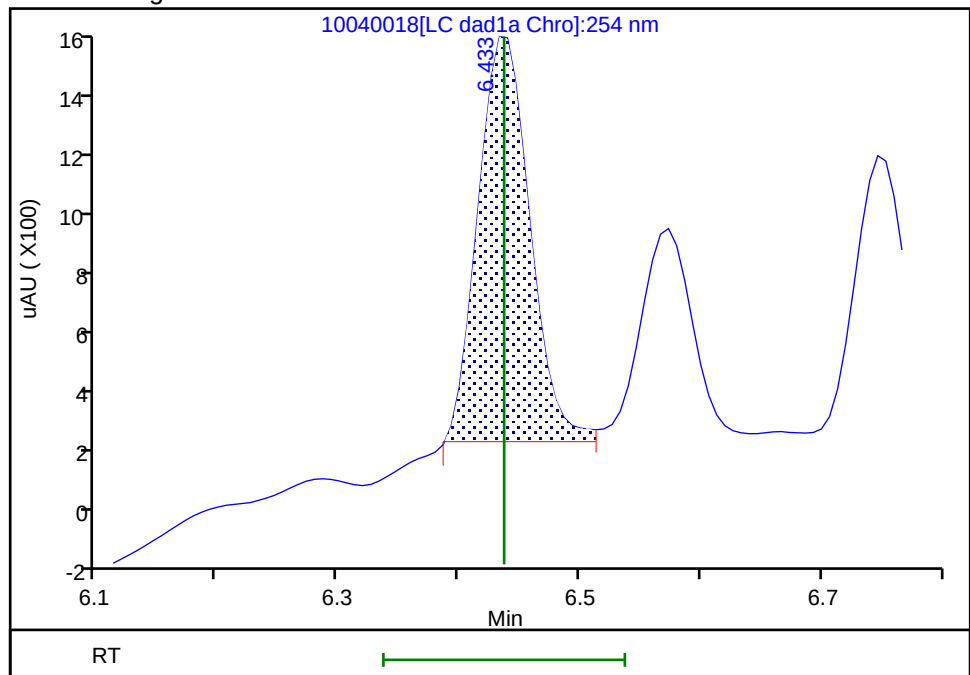
RT: 6.43
Area: 4490
Amount: 0.021421
Amount Units: ug/mL

Processing Integration Results



RT: 6.43
Area: 4020
Amount: 0.019795
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d

Injection Date: 04-Oct-2024 19:33:04

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 2

Client ID:

Operator ID: JZ

ALS Bottle#:

18

Worklist Smp#: 18

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

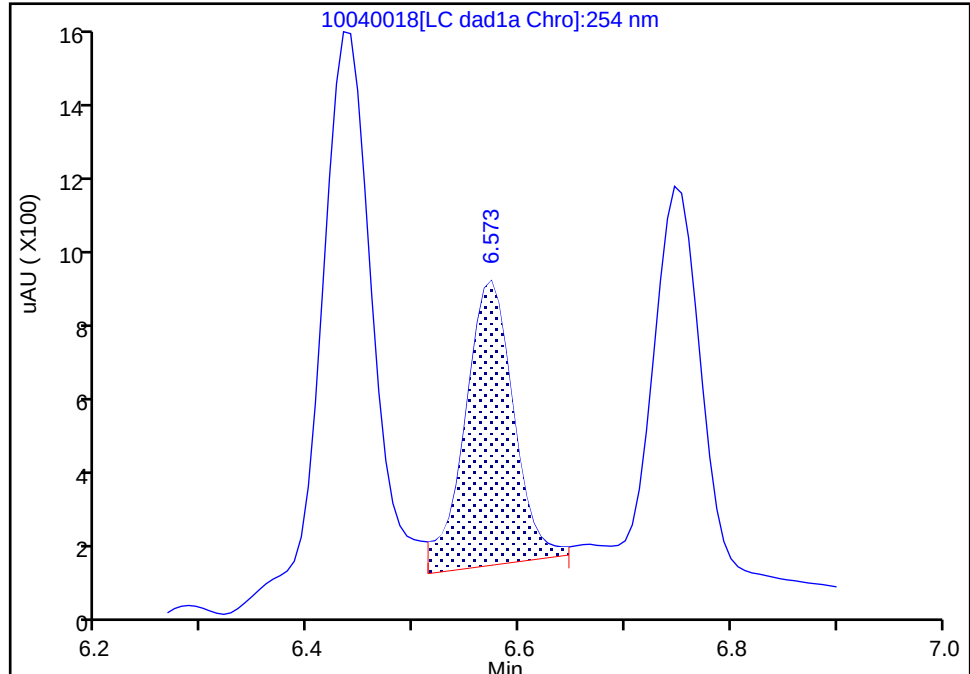
LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

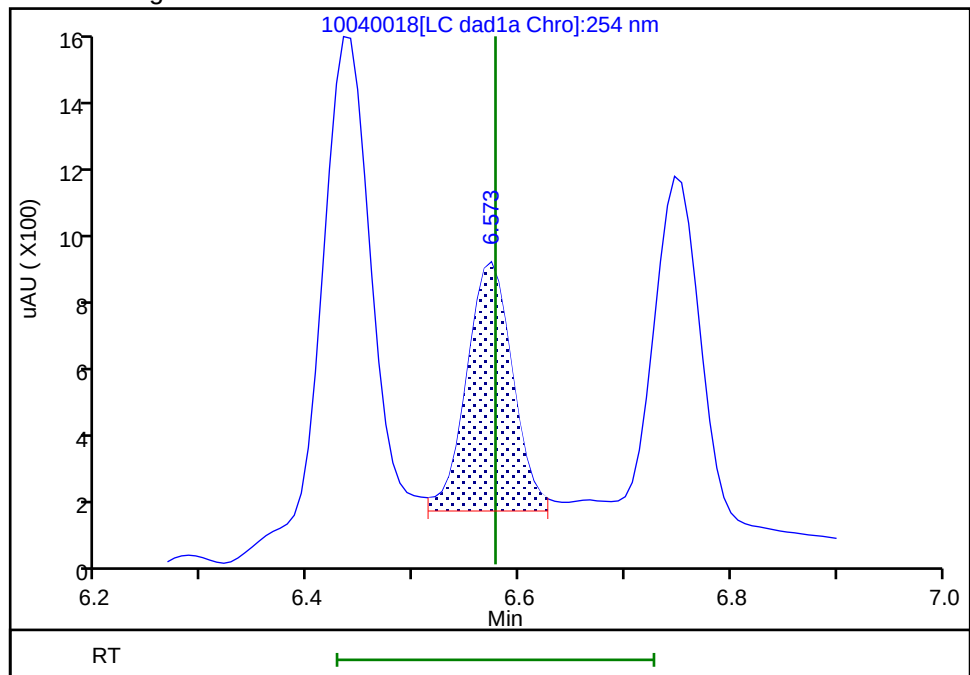
RT: 6.57
Area: 2344
Amount: 0.018346
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 2125
Amount: 0.021986
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d

Injection Date: 04-Oct-2024 19:33:04

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 2

Client ID:

Operator ID: JZ

ALS Bottle#:

18

Worklist Smp#: 18

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

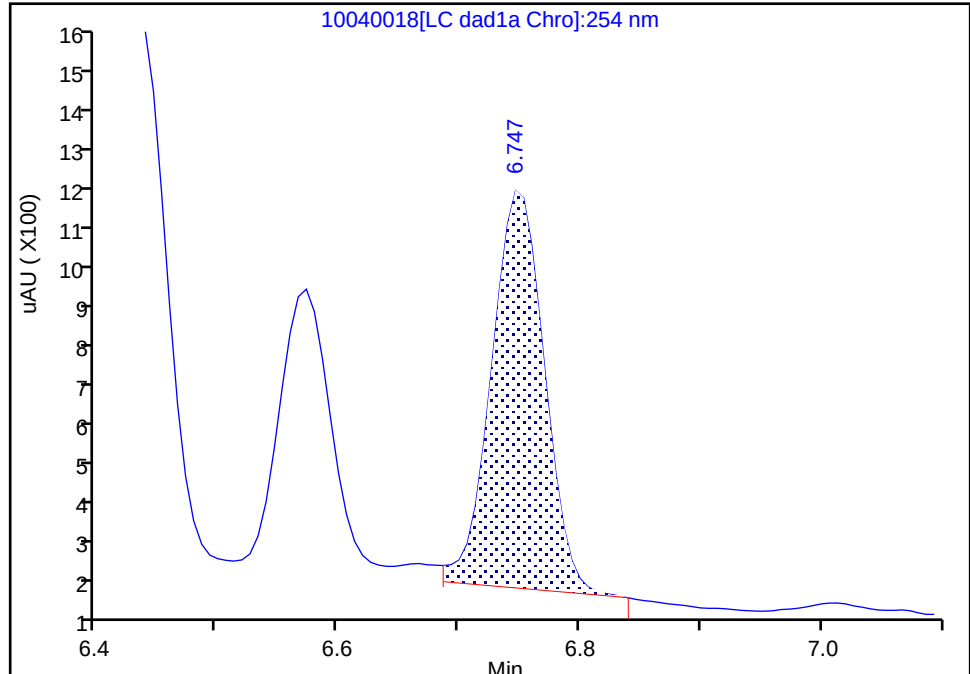
LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

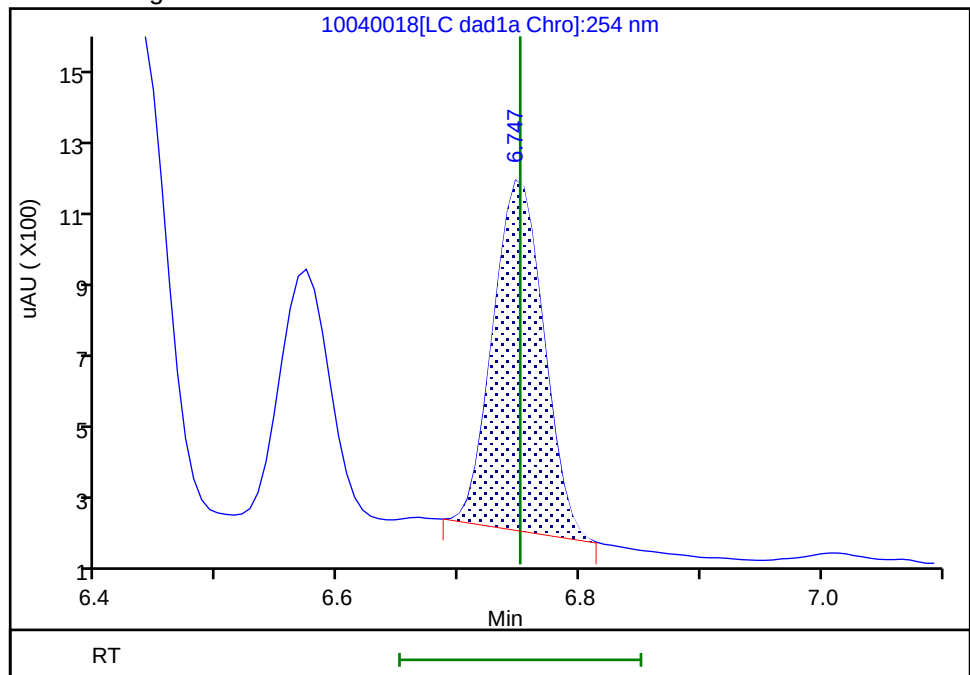
RT: 6.75
Area: 3002
Amount: 0.019805
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 2804
Amount: 0.019200
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:36 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

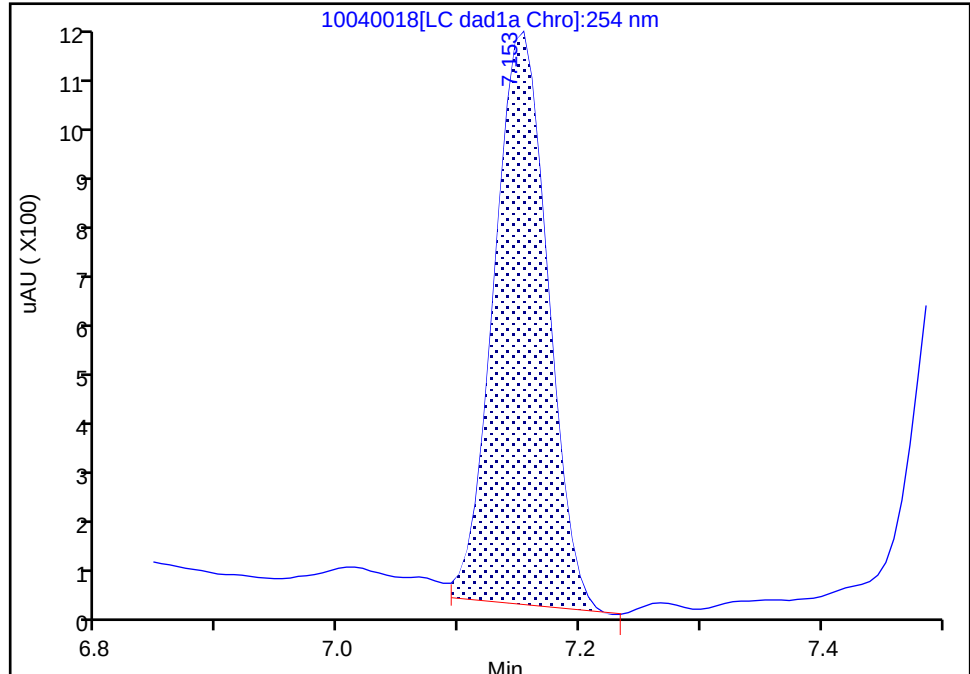
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d
Injection Date: 04-Oct-2024 19:33:04 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

7 MNX, CAS: 5755-27-1

Signal: 1

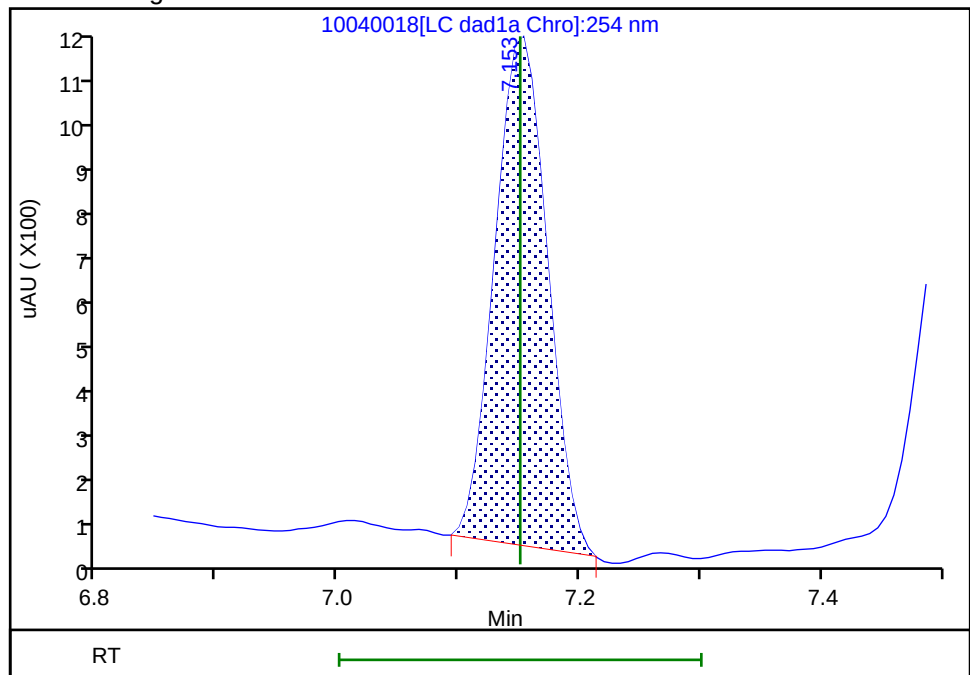
RT: 7.15
Area: 3091
Amount: 0.023142
Amount Units: ug/mL

Processing Integration Results



RT: 7.15
Area: 2958
Amount: 0.022252
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:43 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

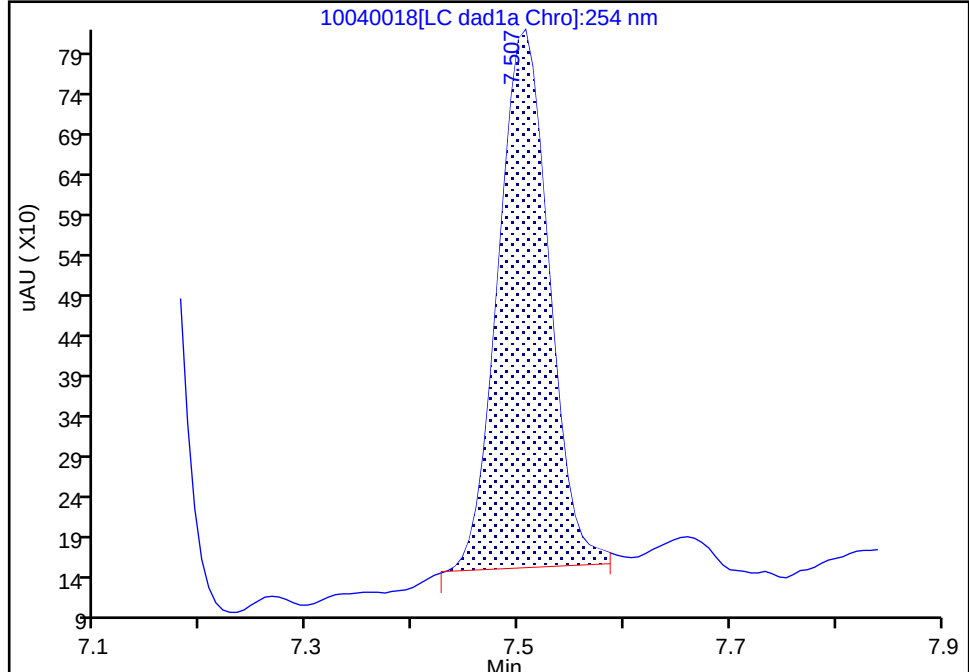
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d
Injection Date: 04-Oct-2024 19:33:04 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

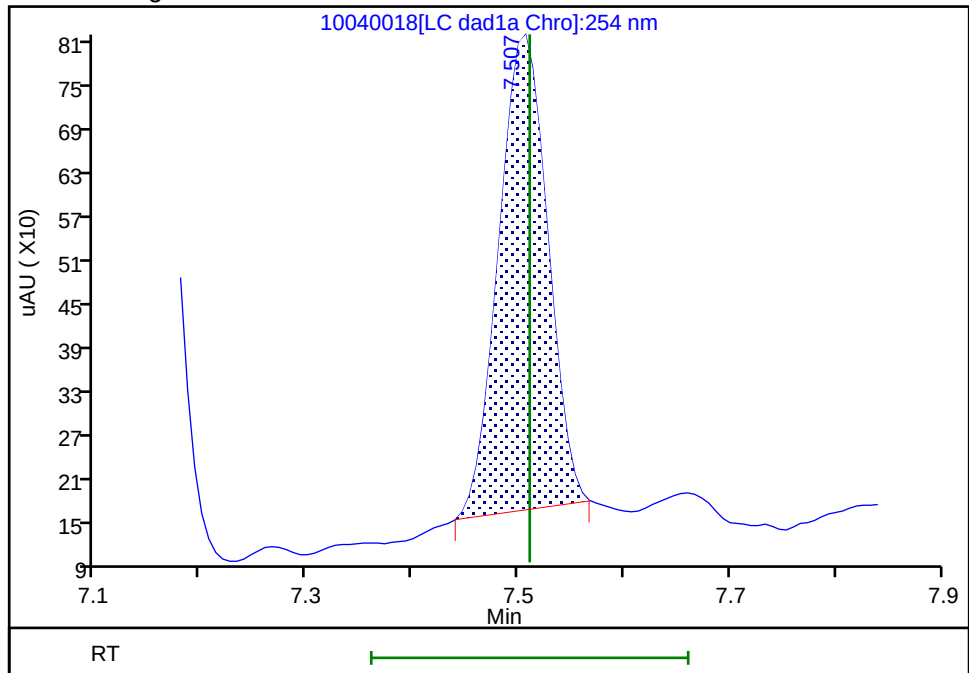
RT: 7.51
Area: 2243
Amount: 0.020524
Amount Units: ug/mL

Processing Integration Results



RT: 7.51
Area: 2098
Amount: 0.018358
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:48 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

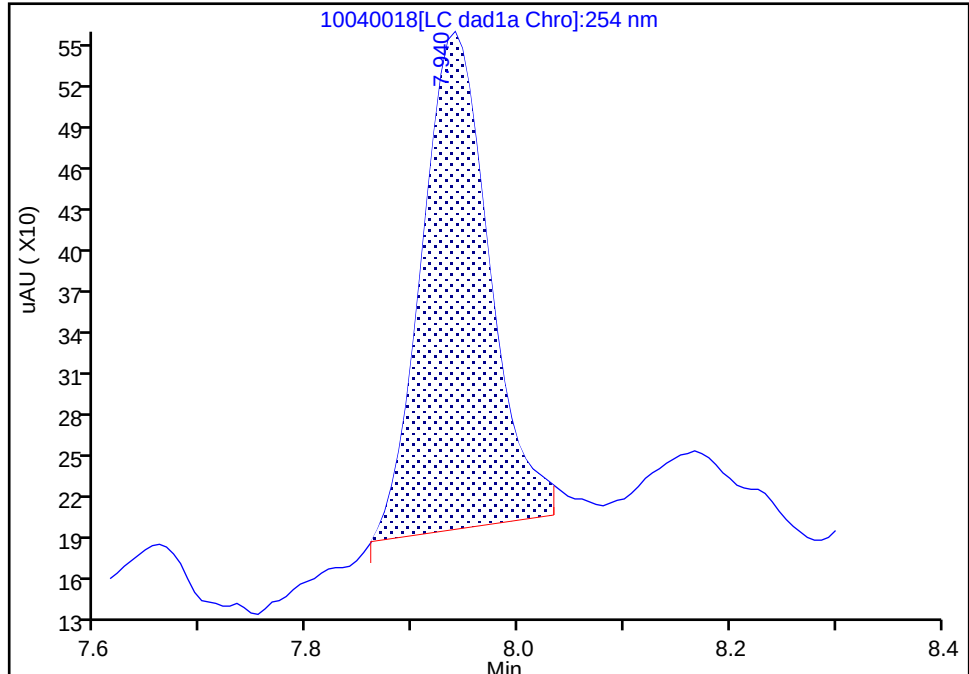
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d
Injection Date: 04-Oct-2024 19:33:04 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

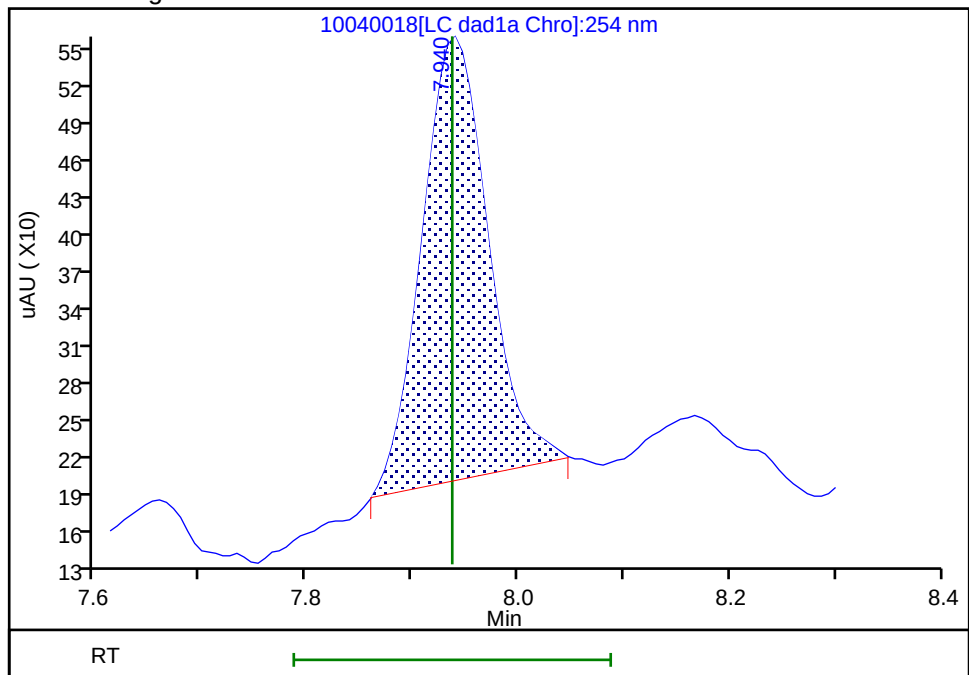
RT: 7.94
Area: 1610
Amount: 0.020704
Amount Units: ug/mL

Processing Integration Results



RT: 7.94
Area: 1559
Amount: 0.020669
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:05:52 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

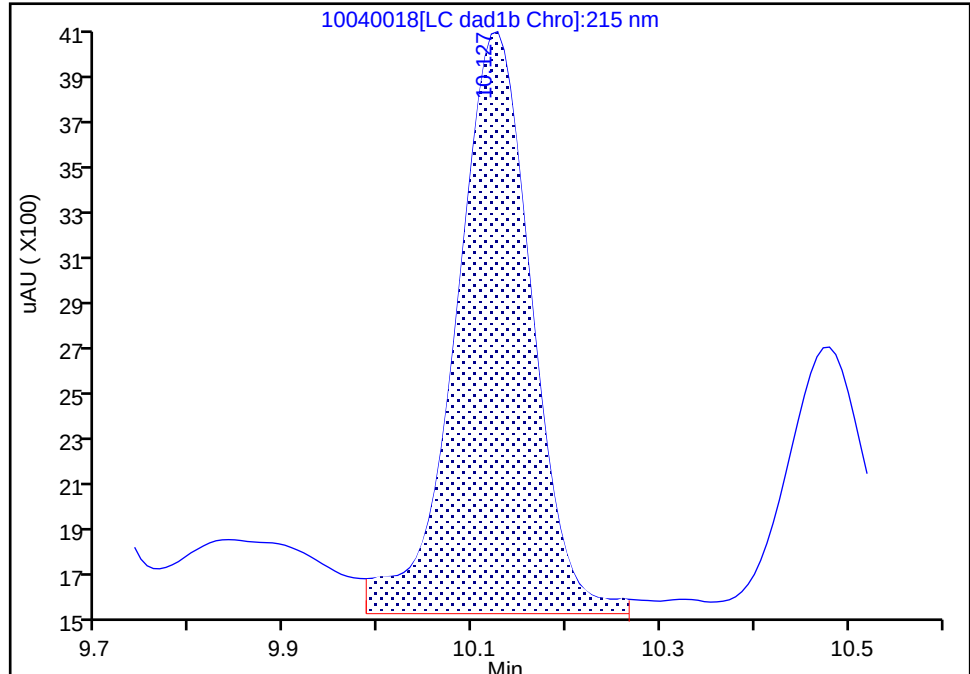
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d
Injection Date: 04-Oct-2024 19:33:04 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

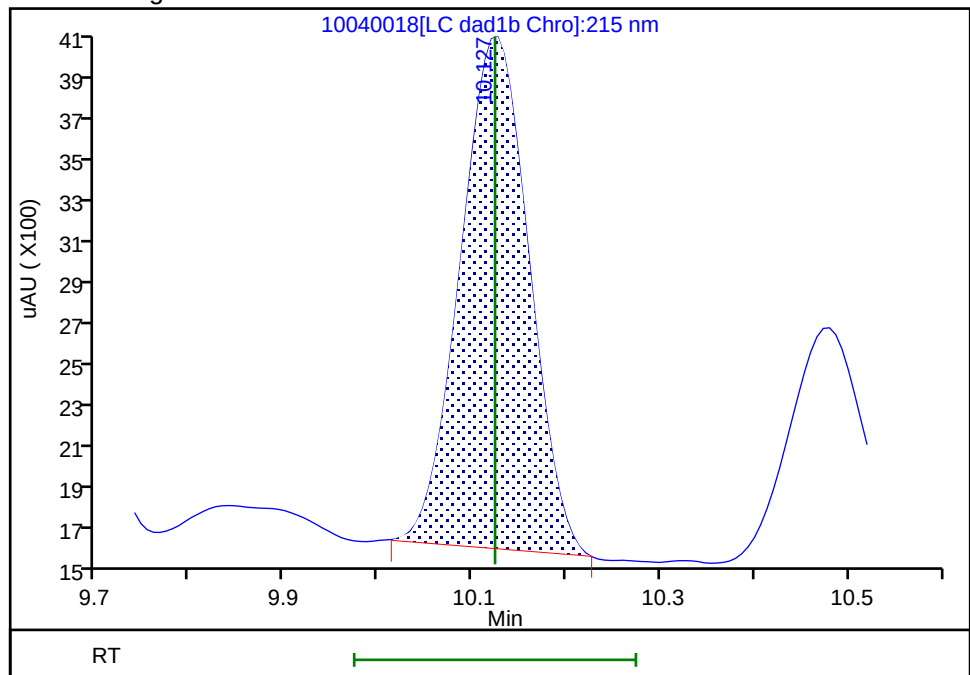
RT: 10.13
Area: 14150
Amount: 0.206998
Amount Units: ug/mL

Processing Integration Results



RT: 10.13
Area: 12143
Amount: 0.194648
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:41 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040018.d

Injection Date: 04-Oct-2024 19:33:04

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 2

Client ID:

Operator ID: JZ

ALS Bottle#:

18

Worklist Smp#: 18

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

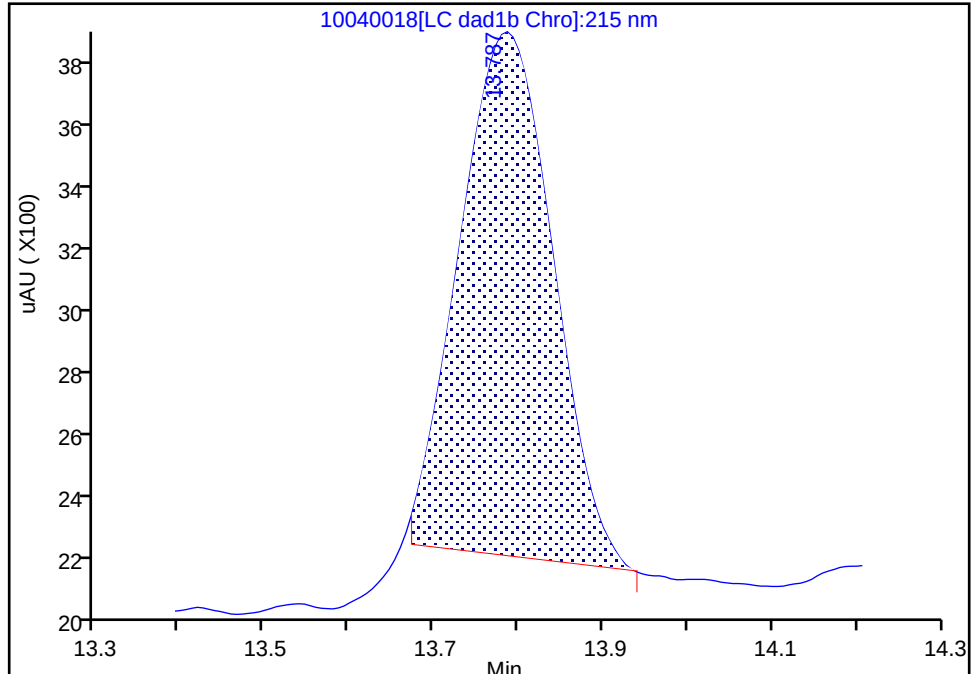
LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

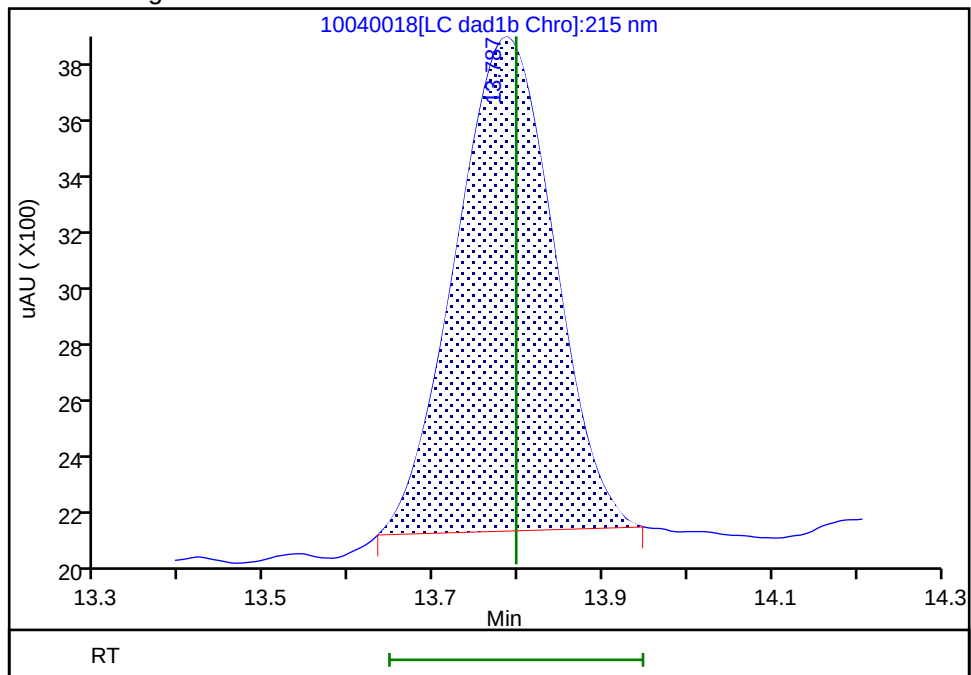
RT: 13.79
Area: 12556
Amount: 0.175210
Amount Units: ug/mL

Processing Integration Results



RT: 13.79
Area: 13772
Amount: 0.190715
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:06:07 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Lims ID: IC INT/DMT 1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 04-Oct-2024 19:55:02 ALS Bottle#: 19 Worklist Smp#: 19
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT/DMT 1
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub27
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:19:25 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:08:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.438	6.437	0.001	1951	0.0100	0.009607	M
4 HMX	1	6.571	6.577	-0.006	930	0.0100	0.009622	M
6 DNx	1	6.751	6.751	0.000	1406	0.0100	0.009627	M
7 MNx	1	7.151	7.151	0.000	1624	0.0117	0.0122	
8 RDX	1	7.505	7.511	-0.006	1264	0.0100	0.0104	
9 2,4,6-Trinitrophenol	1	7.938	7.937	0.001	939	0.0100	0.0124	
\$ 10 1,2-Dinitrobenzene	1	8.371	8.377	-0.006	1315	0.0100	0.0101	
11 1,3,5-Trinitrobenzene	1	8.471	8.477	-0.006	2203	0.0100	0.0101	
12 1,3-Dinitrobenzene	1	9.031	9.037	-0.006	3012	0.0100	0.0101	
13 Nitrobenzene	1	9.351	9.357	-0.006	2038	0.0100	0.0104	
14 3,5-Dinitroaniline	1	9.558	9.564	-0.006	2237	0.0100	0.0099	
15 Tetryl	1	9.678	9.684	-0.006	1642	0.0100	0.0103	
16 Nitroglycerin	2	10.124	10.124	0.000	6121	0.1000	0.1012	M
17 2,4,6-Trinitrotoluene	1	10.478	10.477	0.001	2257	0.0100	0.0104	
18 4-Amino-2,6-dinitrotoluene	1	10.638	10.637	0.001	2099	0.0100	0.0103	
19 2-Amino-4,6-dinitrotoluene	1	10.864	10.864	0.000	2029	0.0100	0.0099	
20 2,6-Dinitrotoluene	1	11.004	11.004	0.000	1600	0.0100	0.0101	
21 2,4-Dinitrotoluene	1	11.151	11.150	0.001	2968	0.0100	0.0102	
22 o-Nitrotoluene	1	11.844	11.850	-0.006	1273	0.0100	0.0101	M
23 p-Nitrotoluene	1	12.218	12.217	0.001	1229	0.0100	0.0099	
24 m-Nitrotoluene	1	12.718	12.724	-0.006	1598	0.0100	0.0100	M
25 PETN	2	13.784	13.797	-0.013	7053	0.1000	0.0977	Ma

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00083

Amount Added: 1.00

Units: uL

8330 DMT_00018

Amount Added: 0.50

Units: uL

Report Date: 08-Oct-2024 13:19:26

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d

Injection Date: 04-Oct-2024 19:55:02

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: IC INT/DMT 1

Worklist Smp#: 19

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

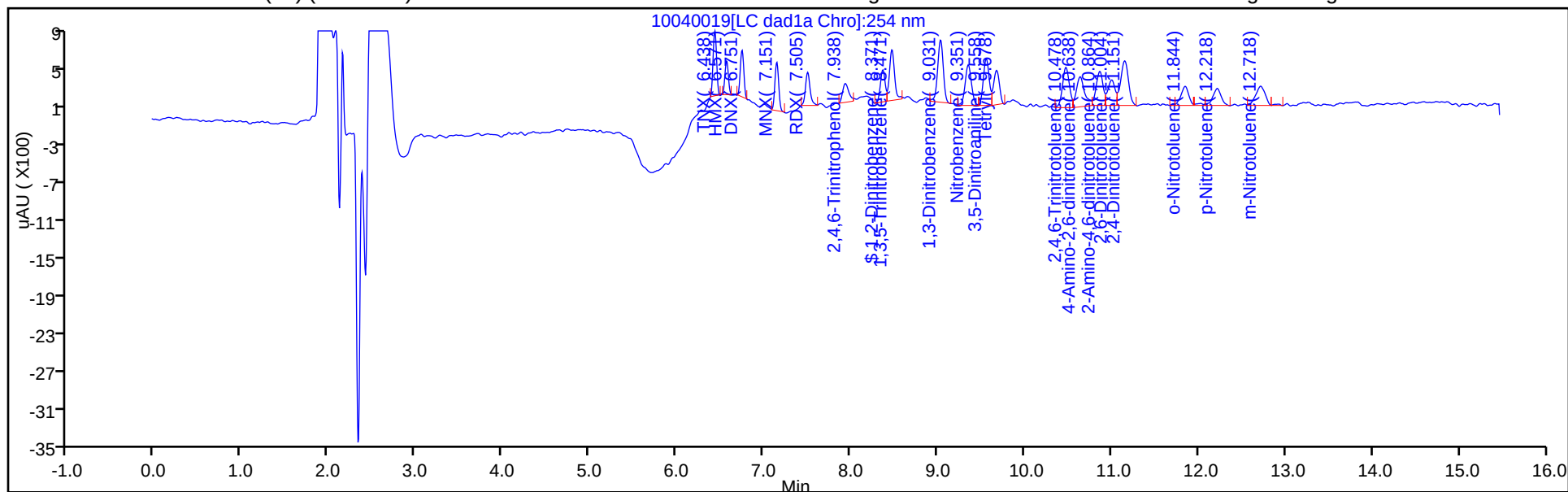
ALS Bottle#: 19

Method: 8330_X3

Limit Group: GCSV - 8330

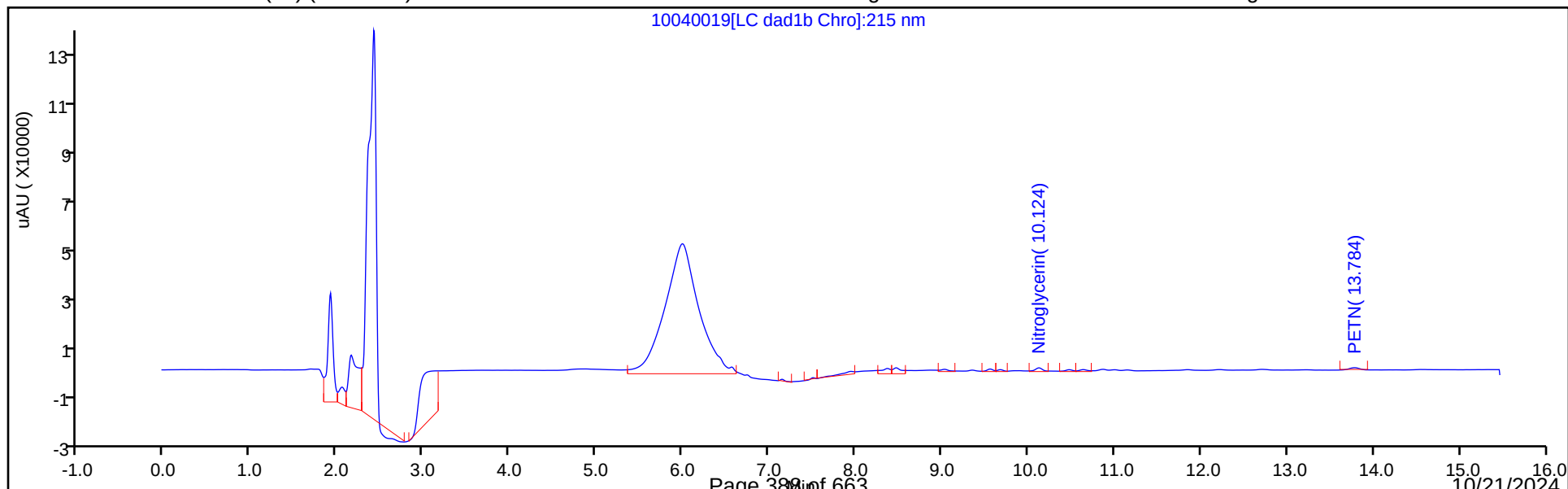
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d

Injection Date: 04-Oct-2024 19:55:02

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

19

Worklist Smp#: 19

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

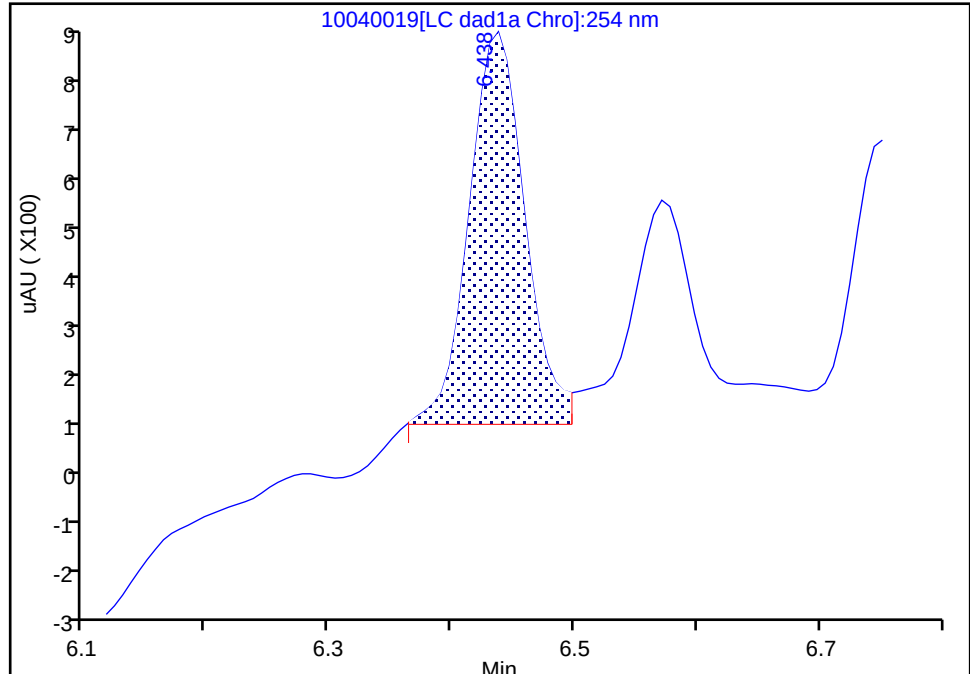
LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

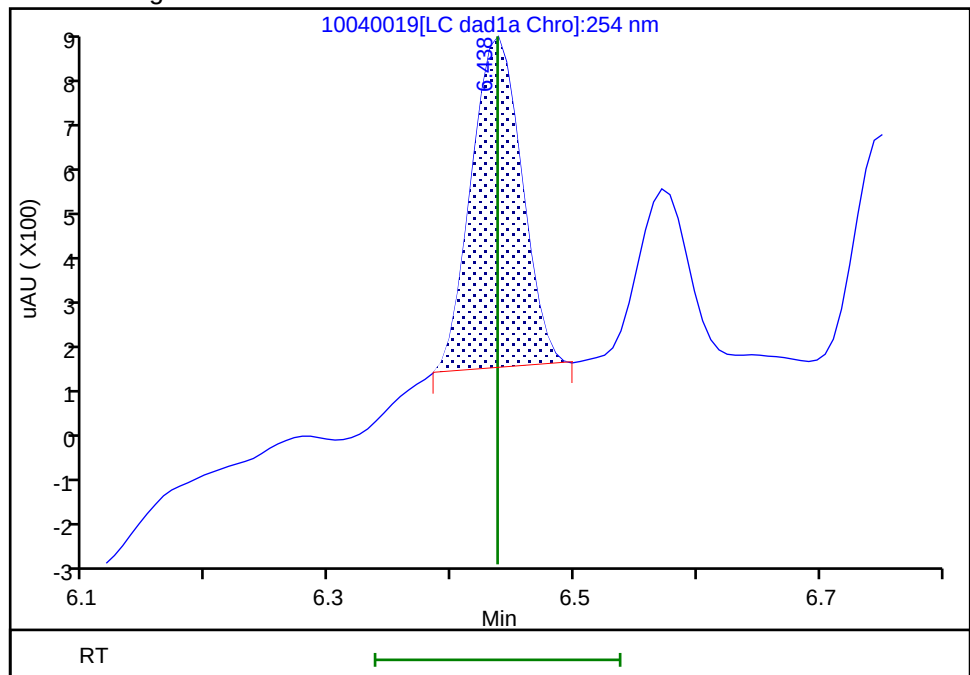
RT: 6.44
Area: 2305
Amount: 0.011135
Amount Units: ug/mL

Processing Integration Results



RT: 6.44
Area: 1951
Amount: 0.009607
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:07:17 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d

Injection Date: 04-Oct-2024 19:55:02

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

19

Worklist Smp#: 19

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

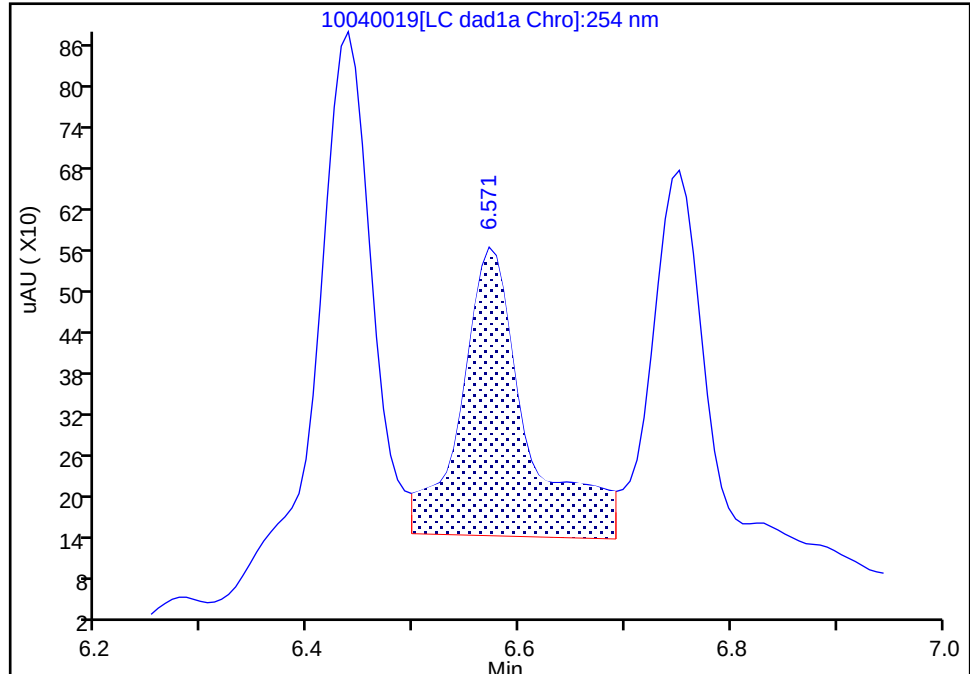
Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

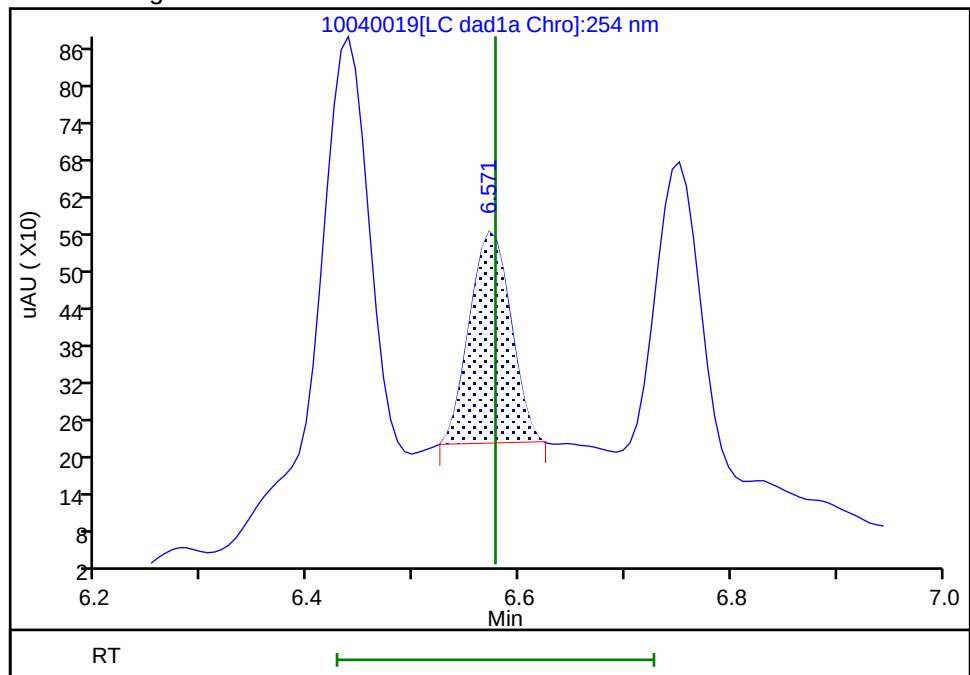
RT: 6.57
Area: 1819
Amount: 0.013460
Amount Units: ug/mL

Processing Integration Results



RT: 6.57
Area: 930
Amount: 0.009622
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:07:10 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d

Injection Date: 04-Oct-2024 19:55:02

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

19

Worklist Smp#: 19

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

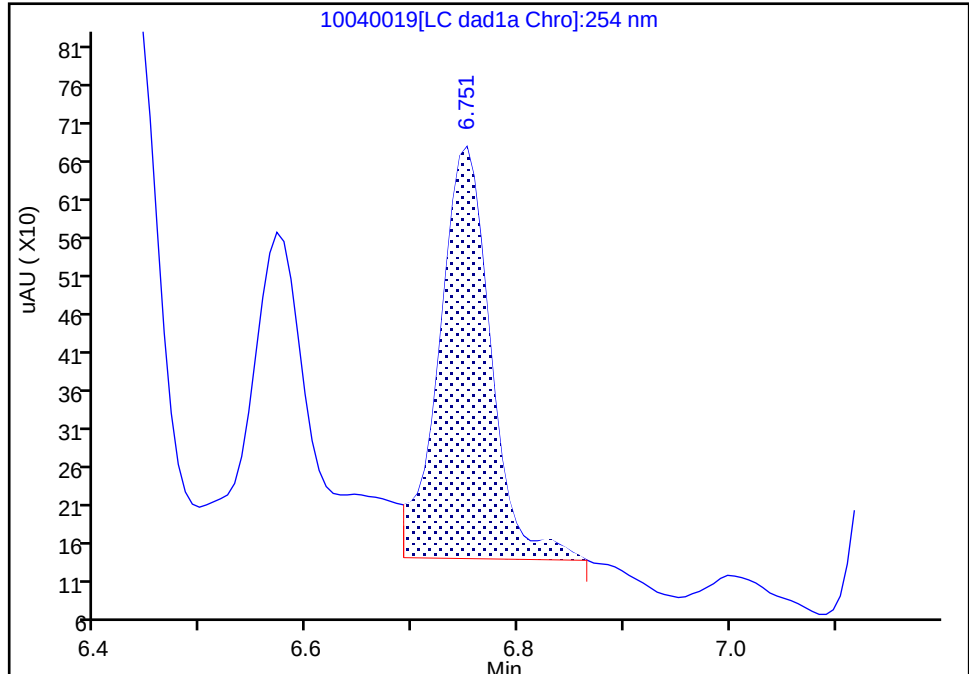
LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

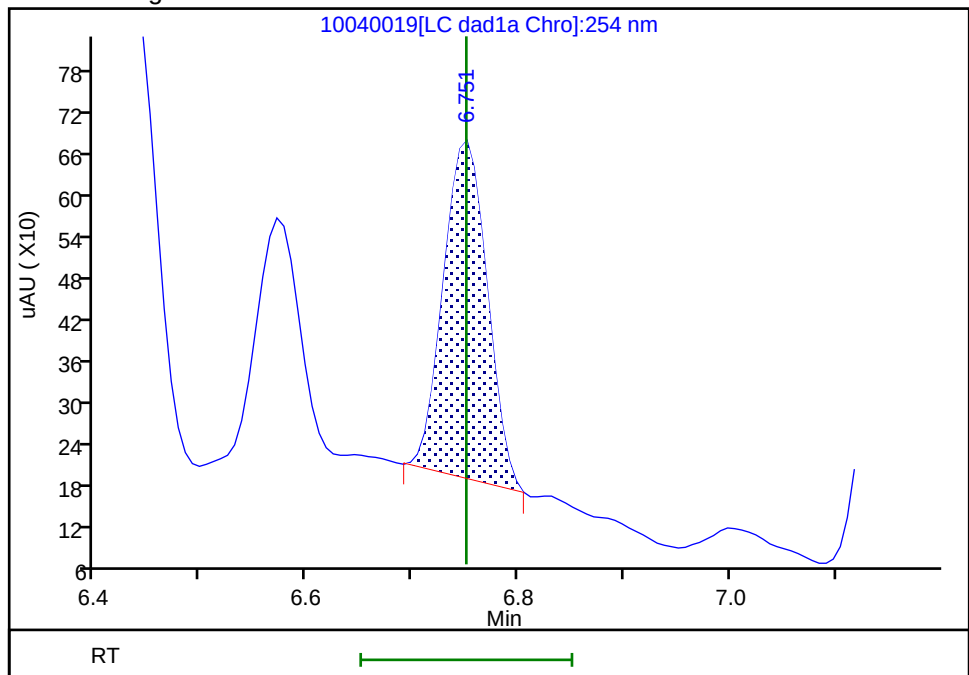
RT: 6.75
Area: 1806
Amount: 0.012001
Amount Units: ug/mL

Processing Integration Results



RT: 6.75
Area: 1406
Amount: 0.009627
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:07:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d

Injection Date: 04-Oct-2024 19:55:02

Instrument ID: CHHPLC_X3

Lims ID: IC INT/DMT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

19

Worklist Smp#: 19

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

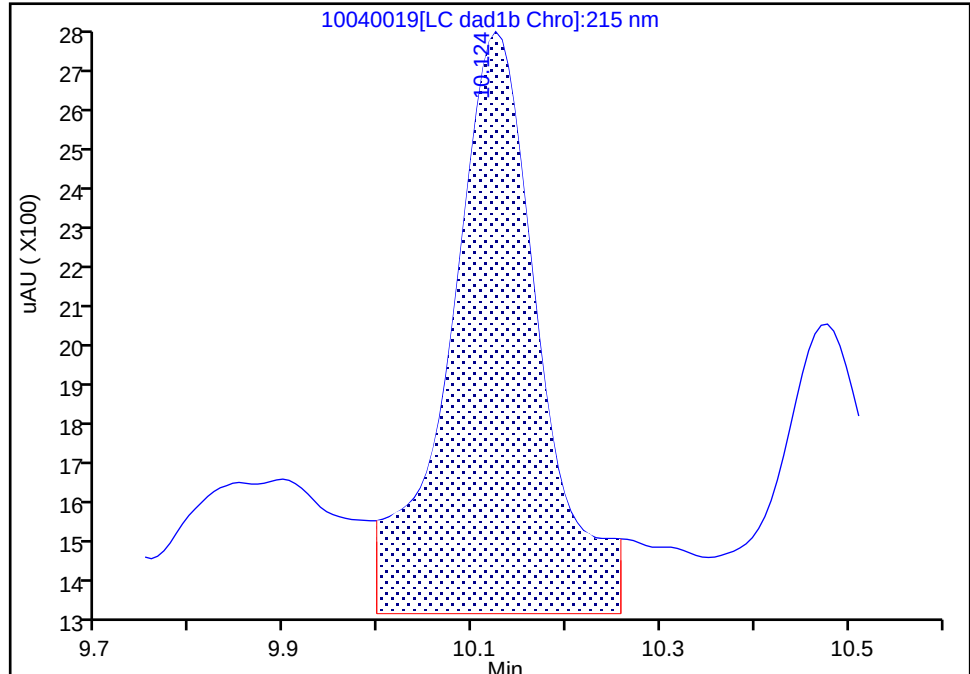
LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

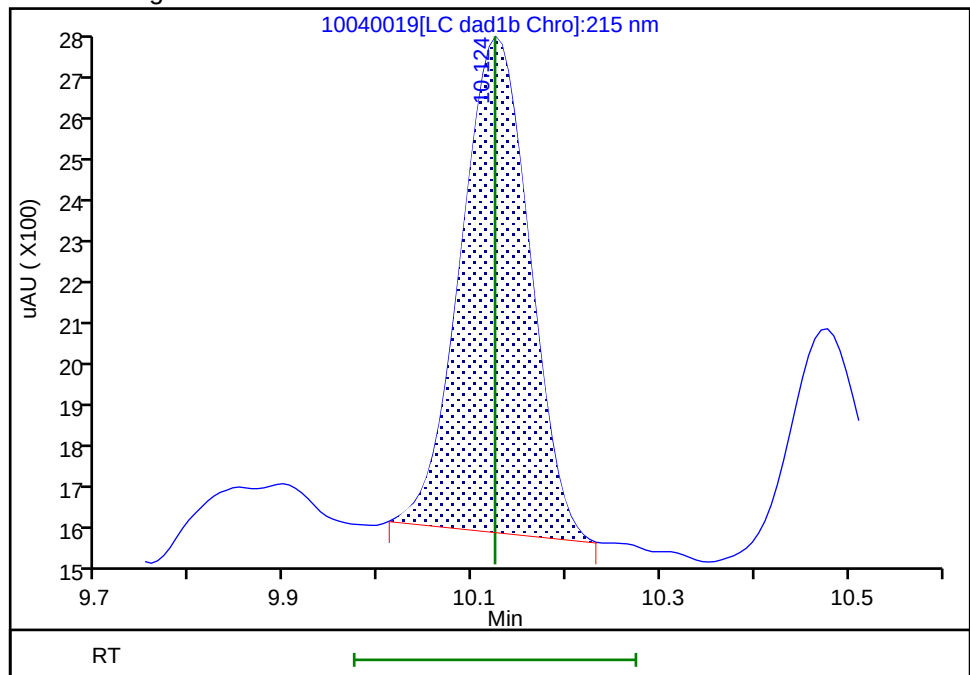
RT: 10.12
Area: 9393
Amount: 0.139687
Amount Units: ug/mL

Processing Integration Results



RT: 10.12
Area: 6121
Amount: 0.101220
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:09:48 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

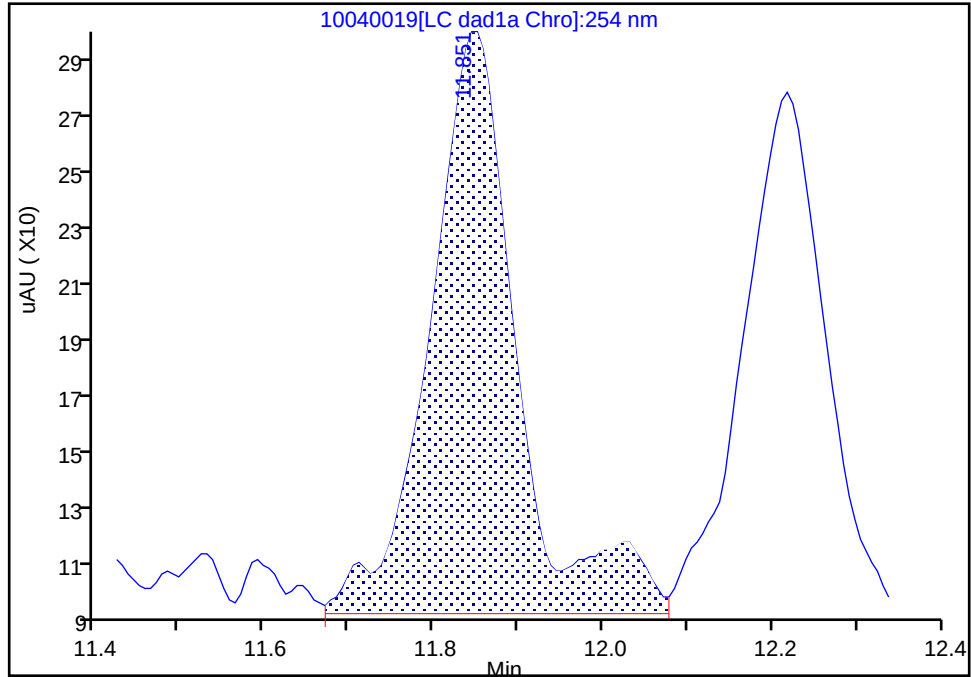
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d
Injection Date: 04-Oct-2024 19:55:02 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

22 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

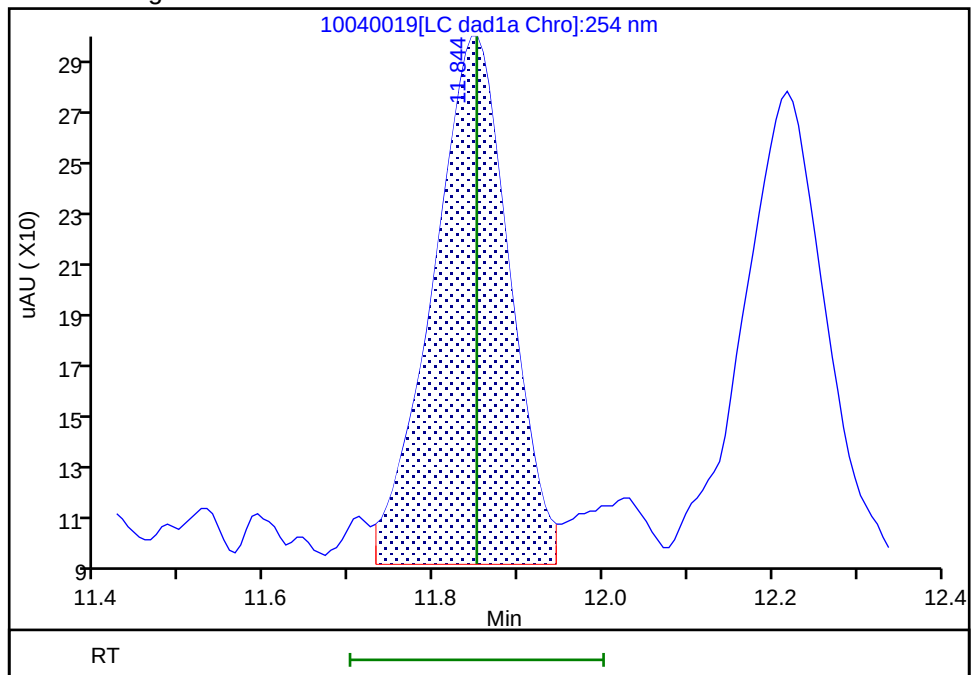
RT: 11.85
Area: 1460
Amount: 0.011447
Amount Units: ug/mL

Processing Integration Results



RT: 11.84
Area: 1273
Amount: 0.010146
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:06:44 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

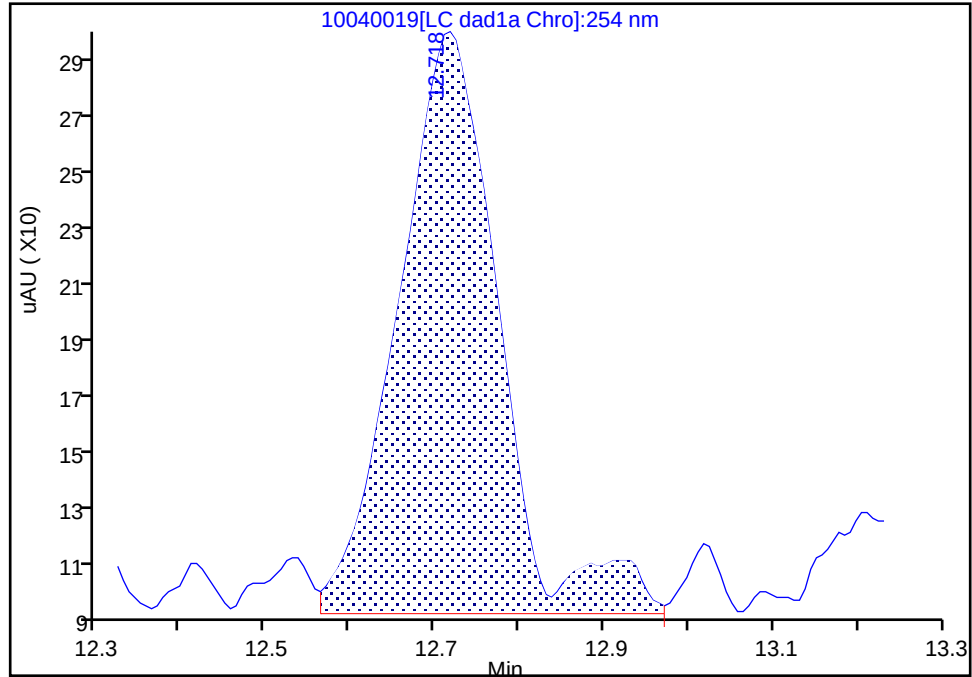
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d
Injection Date: 04-Oct-2024 19:55:02 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

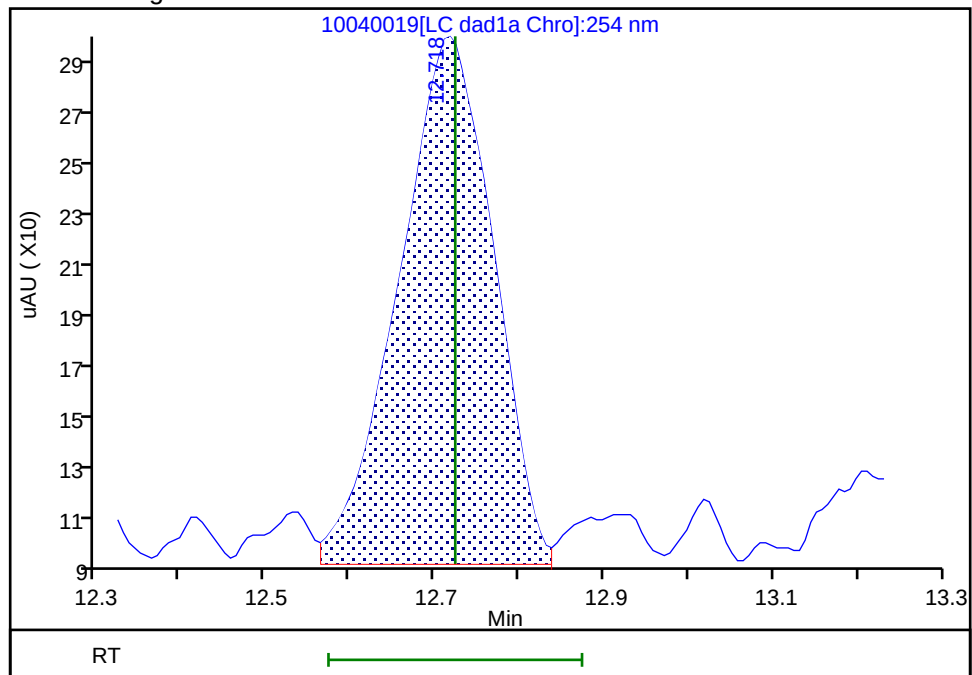
RT: 12.72
Area: 1709
Amount: 0.012068
Amount Units: ug/mL

Processing Integration Results



RT: 12.72
Area: 1598
Amount: 0.009977
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:06:32 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

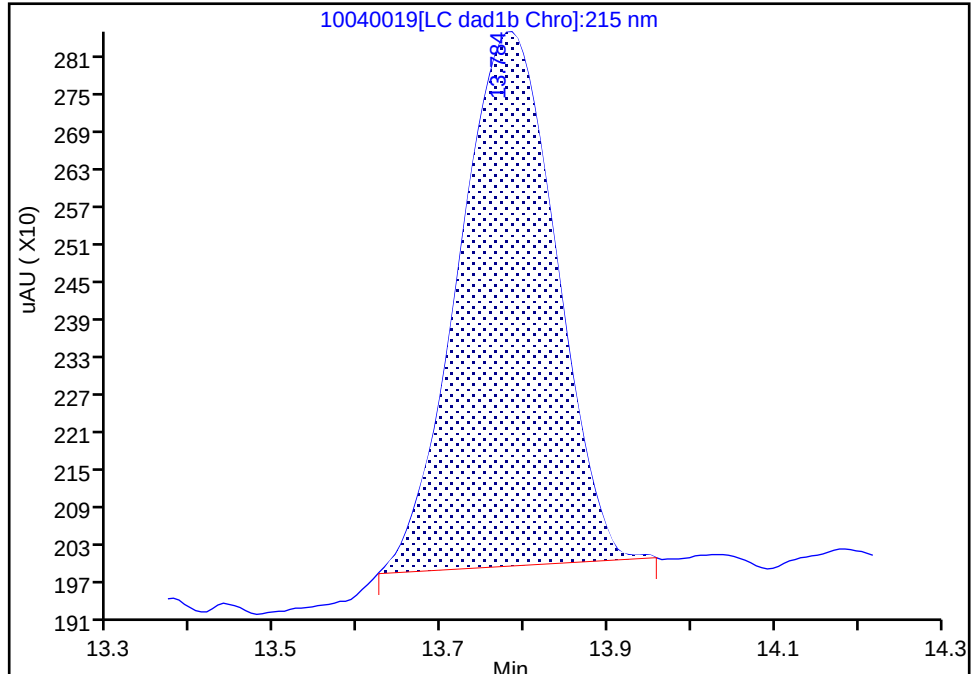
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040019.d
Injection Date: 04-Oct-2024 19:55:02 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

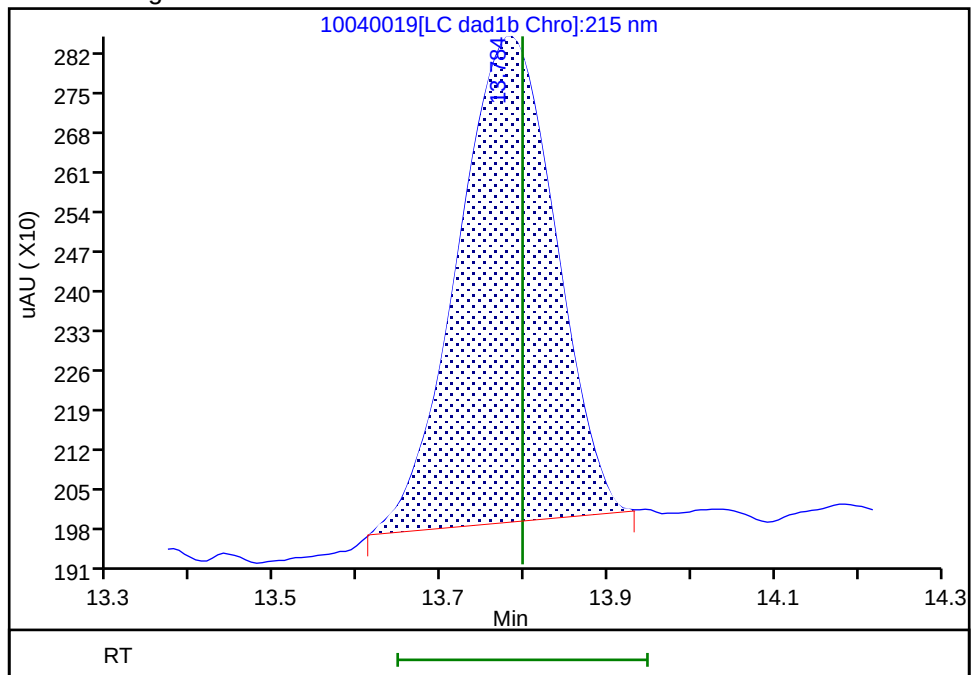
RT: 13.78
Area: 6952
Amount: 0.096421
Amount Units: ug/mL

Processing Integration Results



RT: 13.78
Area: 7053
Amount: 0.097670
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:06:22 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Calibration

/ TNX

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

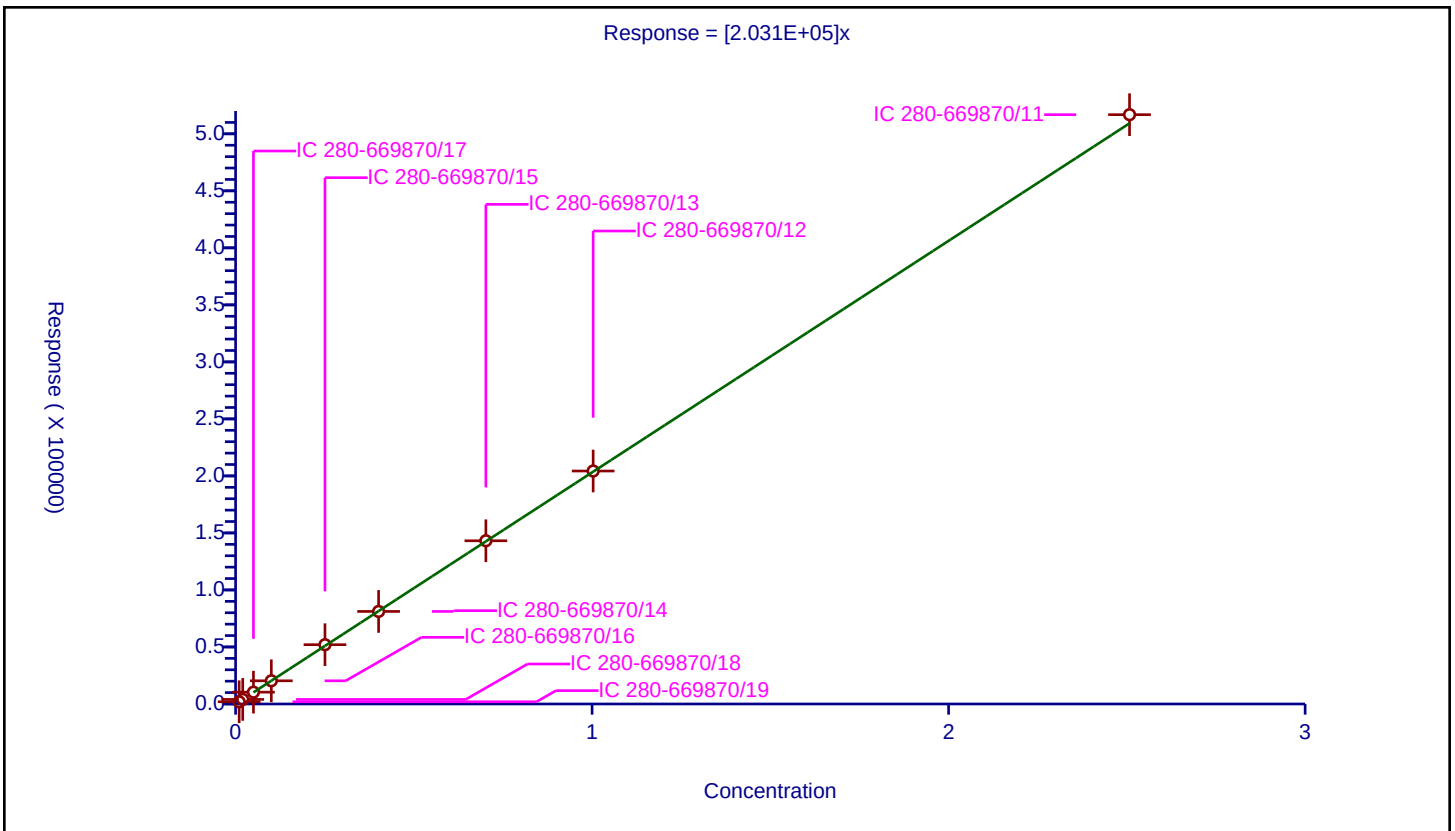
Curve Coefficients

Intercept: 0
Slope: 2.031E+05

Error Coefficients

Relative Standard Deviation: 1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01003	1951.0			194516.450648	Y
2	IC 280-669870/18	0.02006	4020.0			200398.803589	Y
3	IC 280-669870/17	0.05015	10367.0			206719.840479	Y
4	IC 280-669870/16	0.1003	20335.0			202741.774676	Y
5	IC 280-669870/15	0.25075	51995.0			207357.926221	Y
6	IC 280-669870/14	0.4012	81160.0			202293.120638	Y
7	IC 280-669870/13	0.7021	143139.0			203872.667711	Y
8	IC 280-669870/12	1.003	204307.0			203695.912263	Y
9	IC 280-669870/11	2.5075	516807.0			206104.48654	Y



Calibration

/ HMX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

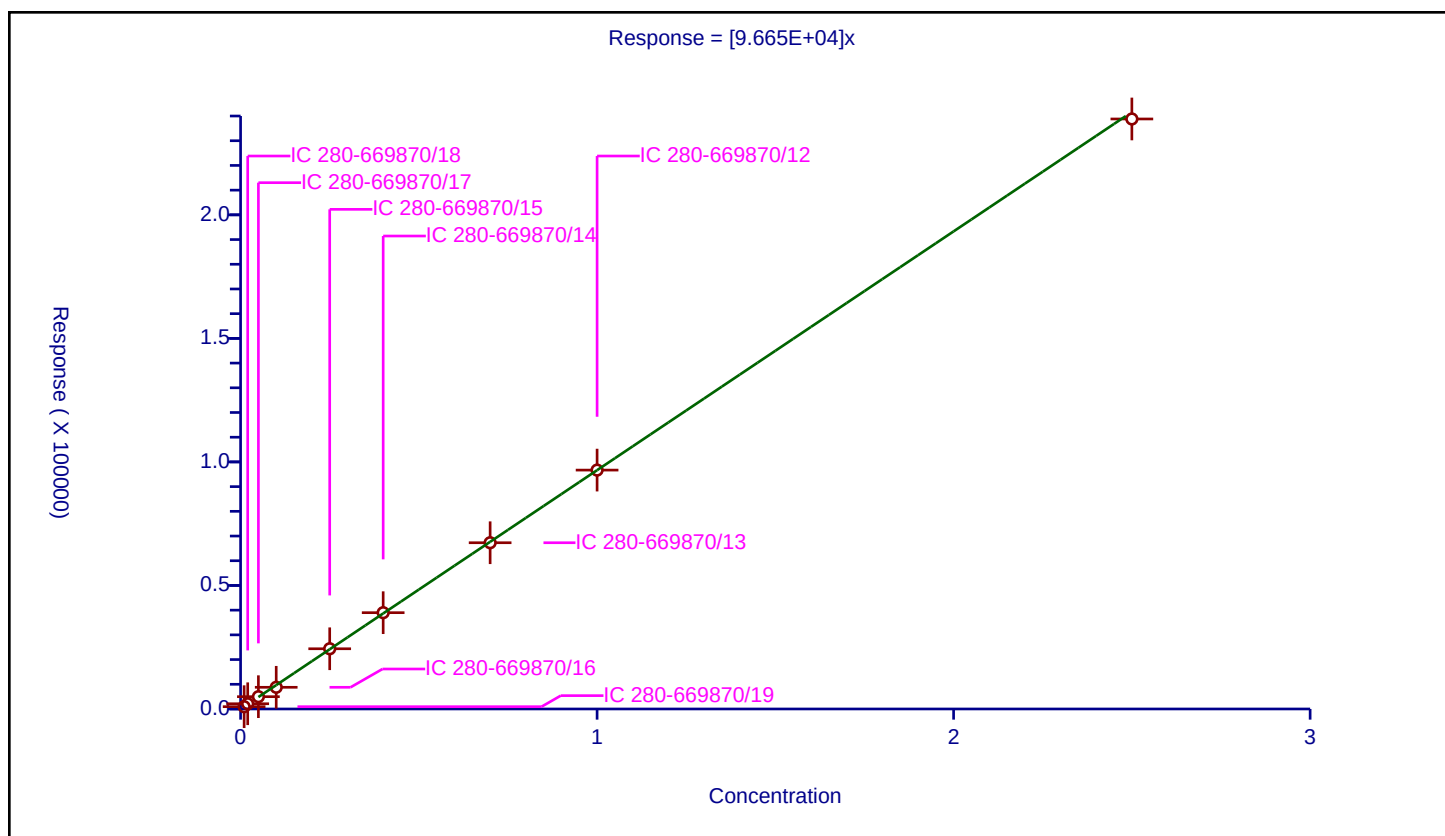
Curve Coefficients

Intercept: 0
 Slope: 9.665E+04

Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	930.0			93000.0	Y
2	IC 280-669870/18	0.02	2125.0			106250.0	Y
3	IC 280-669870/17	0.05	4979.0			99580.0	Y
4	IC 280-669870/16	0.1	8775.0			87750.0	Y
5	IC 280-669870/15	0.25	24377.0			97508.0	Y
6	IC 280-669870/14	0.4	38978.0			97445.0	Y
7	IC 280-669870/13	0.7	67292.0			96131.428571	Y
8	IC 280-669870/12	1.0	96690.0			96690.0	Y
9	IC 280-669870/11	2.5	238805.0			95522.0	Y



Calibration

/ DNX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

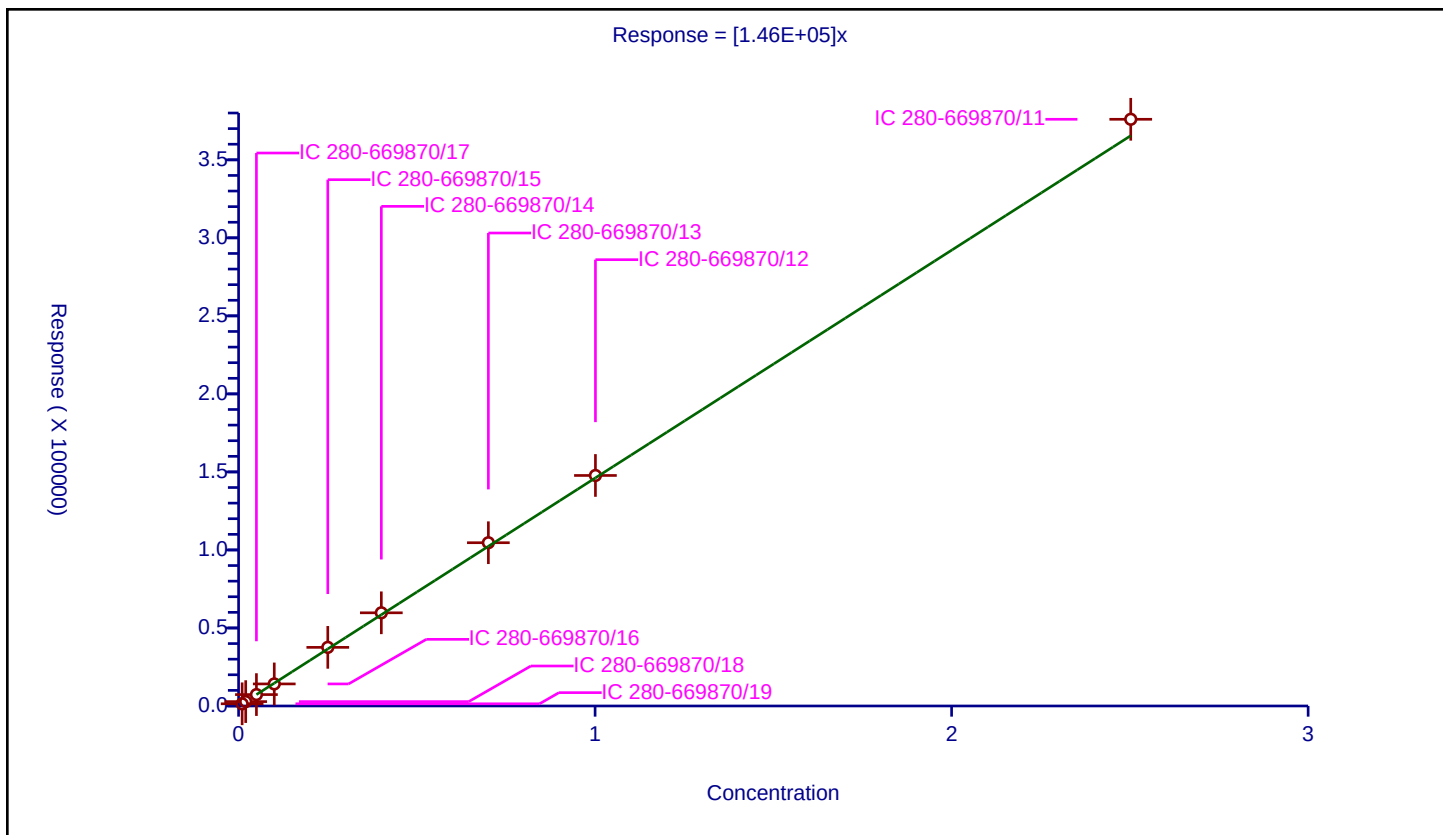
Curve Coefficients

Intercept: 0
 Slope: 1.46E+05

Error Coefficients

Relative Standard Deviation: 2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01001	1406.0			140459.54046	Y
2	IC 280-669870/18	0.02002	2804.0			140059.94006	Y
3	IC 280-669870/17	0.05005	7313.0			146113.886114	Y
4	IC 280-669870/16	0.1001	14149.0			141348.651349	Y
5	IC 280-669870/15	0.25025	37571.0			150133.866134	Y
6	IC 280-669870/14	0.4004	59711.0			149128.371628	Y
7	IC 280-669870/13	0.7007	104619.0			149306.407878	Y
8	IC 280-669870/12	1.001	147729.0			147581.418581	Y
9	IC 280-669870/11	2.5025	375984.0			150243.356643	Y



Calibration

/ MNX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

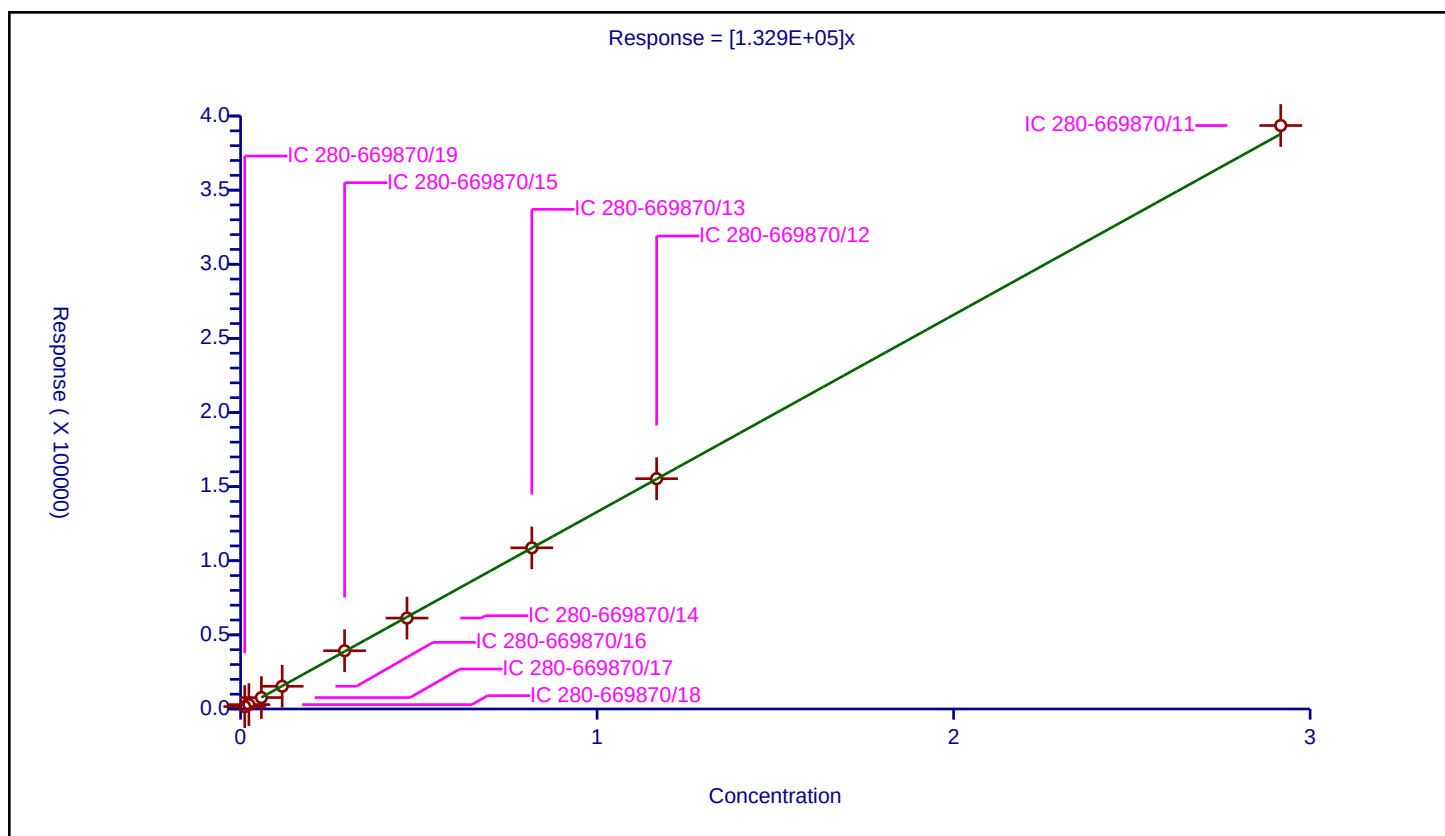
Curve Coefficients

Intercept: 0
 Slope: 1.329E+05

Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01167	1624.0			139160.239931	Y
2	IC 280-669870/18	0.02334	2958.0			126735.218509	Y
3	IC 280-669870/17	0.05835	7700.0			131962.296487	Y
4	IC 280-669870/16	0.1167	15337.0			131422.450728	Y
5	IC 280-669870/15	0.29175	39273.0			134611.825193	Y
6	IC 280-669870/14	0.4668	61334.0			131392.459297	Y
7	IC 280-669870/13	0.8169	108719.0			133087.281185	Y
8	IC 280-669870/12	1.167	155360.0			133127.677806	Y
9	IC 280-669870/11	2.9175	393599.0			134909.682948	Y



Calibration

/ RDX

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

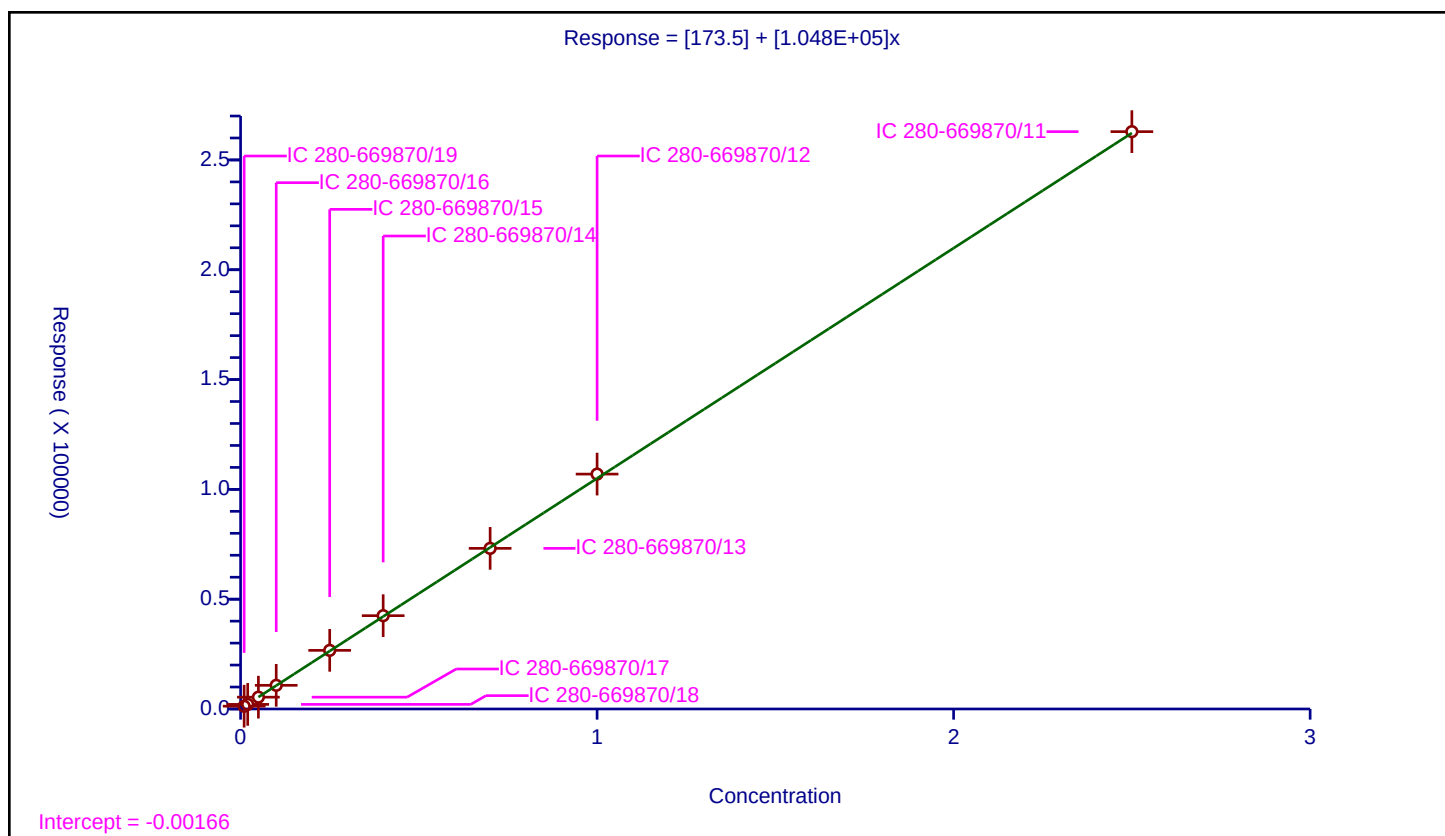
Curve Coefficients

Intercept: 173.5
 Slope: 1.048E+05

Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1264.0			126400.0	Y
2	IC 280-669870/18	0.02	2098.0			104900.0	Y
3	IC 280-669870/17	0.05	5386.0			107720.0	Y
4	IC 280-669870/16	0.1	10773.0			107730.0	Y
5	IC 280-669870/15	0.25	26694.0			106776.0	Y
6	IC 280-669870/14	0.4	42489.0			106222.5	Y
7	IC 280-669870/13	0.7	73136.0			104480.0	Y
8	IC 280-669870/12	1.0	106956.0			106956.0	Y
9	IC 280-669870/11	2.5	262885.0			105154.0	Y



Calibration

/ 2,4,6-Trinitrophenol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

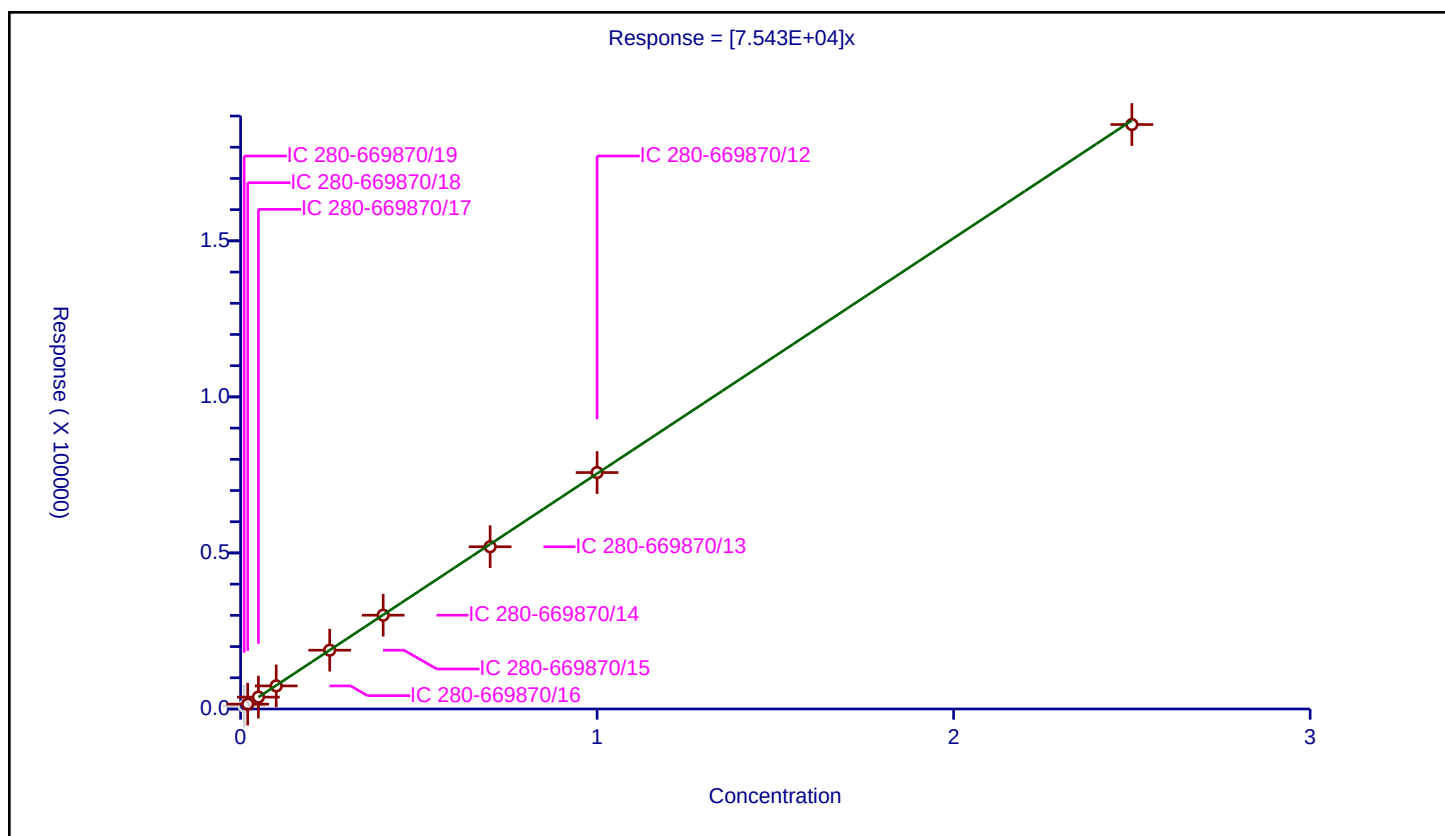
Curve Coefficients

Intercept: 0
Slope: 7.543E+04

Error Coefficients

Relative Standard Deviation: 1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	939.0			93900.0	N
2	IC 280-669870/18	0.02	1559.0			77950.0	Y
3	IC 280-669870/17	0.05	3807.0			76140.0	Y
4	IC 280-669870/16	0.1	7391.0			73910.0	Y
5	IC 280-669870/15	0.25	18836.0			75344.0	Y
6	IC 280-669870/14	0.4	30056.0			75140.0	Y
7	IC 280-669870/13	0.7	51986.0			74265.714286	Y
8	IC 280-669870/12	1.0	75756.0			75756.0	Y
9	IC 280-669870/11	2.5	187271.0			74908.4	Y



Calibration

/ 1,2-Dinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

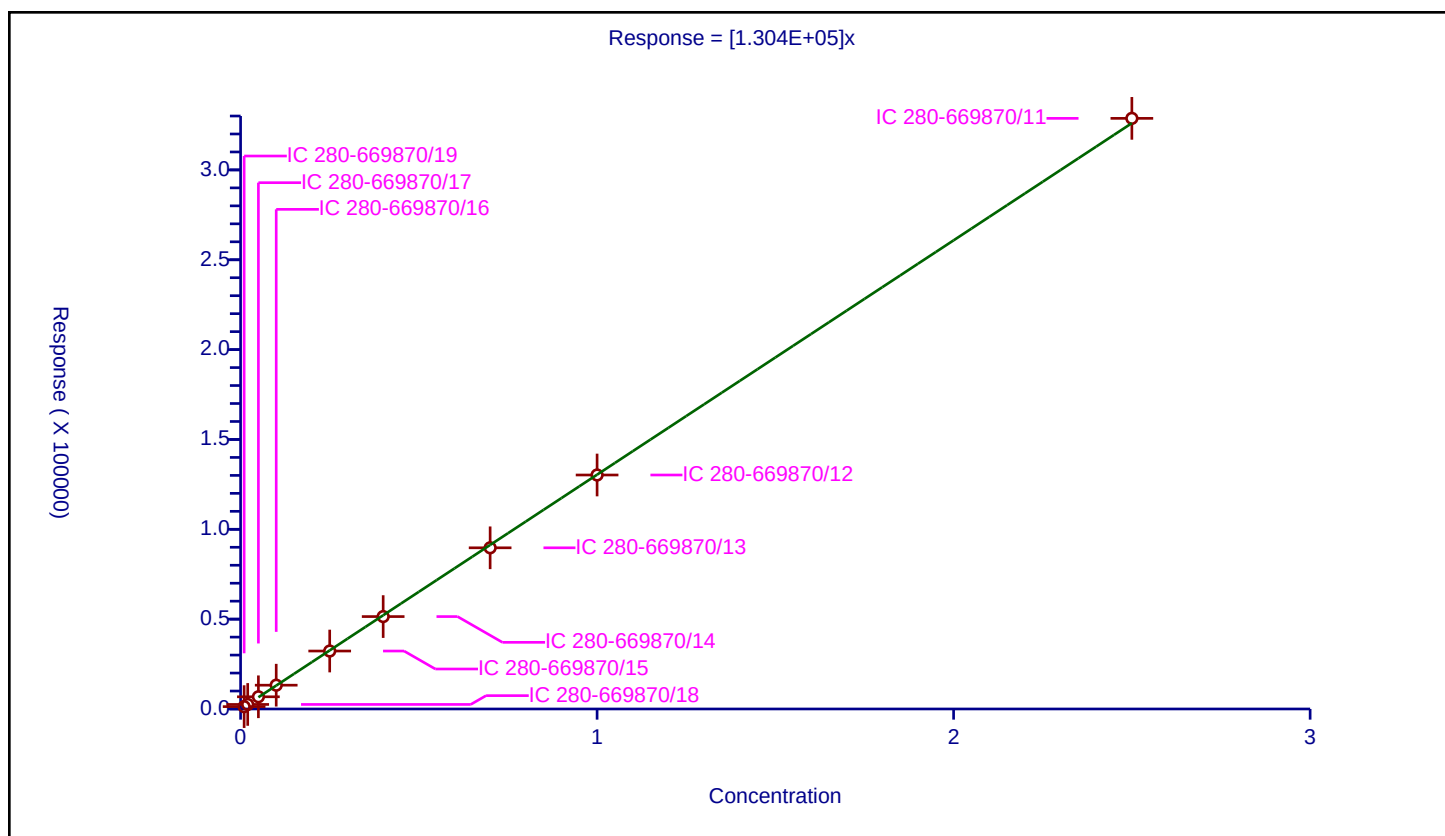
Curve Coefficients

Intercept: 0
Slope: 1.304E+05

Error Coefficients

Relative Standard Deviation: 2.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1315.0			131500.0	Y
2	IC 280-669870/18	0.02	2530.0			126500.0	Y
3	IC 280-669870/17	0.05	6795.0			135900.0	Y
4	IC 280-669870/16	0.1	13238.0			132380.0	Y
5	IC 280-669870/15	0.25	32250.0			129000.0	Y
6	IC 280-669870/14	0.4	51425.0			128562.5	Y
7	IC 280-669870/13	0.7	89703.0			128147.142857	Y
8	IC 280-669870/12	1.0	130220.0			130220.0	Y
9	IC 280-669870/11	2.5	328696.0			131478.4	Y



Calibration

/ 1,3,5-Trinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

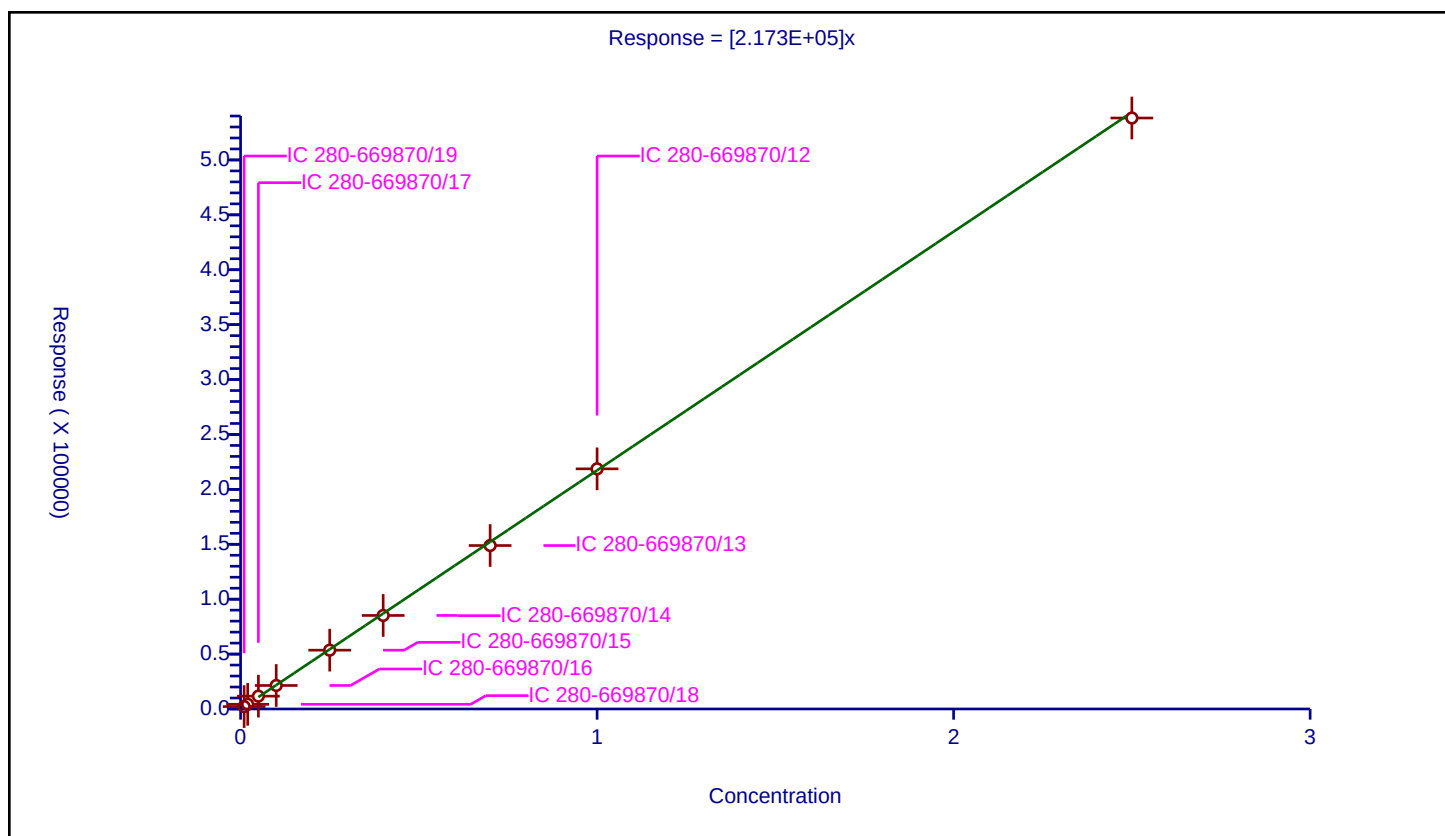
Curve Coefficients

Intercept: 0
Slope: 2.173E+05

Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2203.0			220300.0	Y
2	IC 280-669870/18	0.02	4281.0			214050.0	Y
3	IC 280-669870/17	0.05	11696.0			233920.0	Y
4	IC 280-669870/16	0.1	21407.0			214070.0	Y
5	IC 280-669870/15	0.25	53554.0			214216.0	Y
6	IC 280-669870/14	0.4	85185.0			212962.5	Y
7	IC 280-669870/13	0.7	148857.0			212652.857143	Y
8	IC 280-669870/12	1.0	218705.0			218705.0	Y
9	IC 280-669870/11	2.5	538179.0			215271.6	Y



Calibration

/ 1,3-Dinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

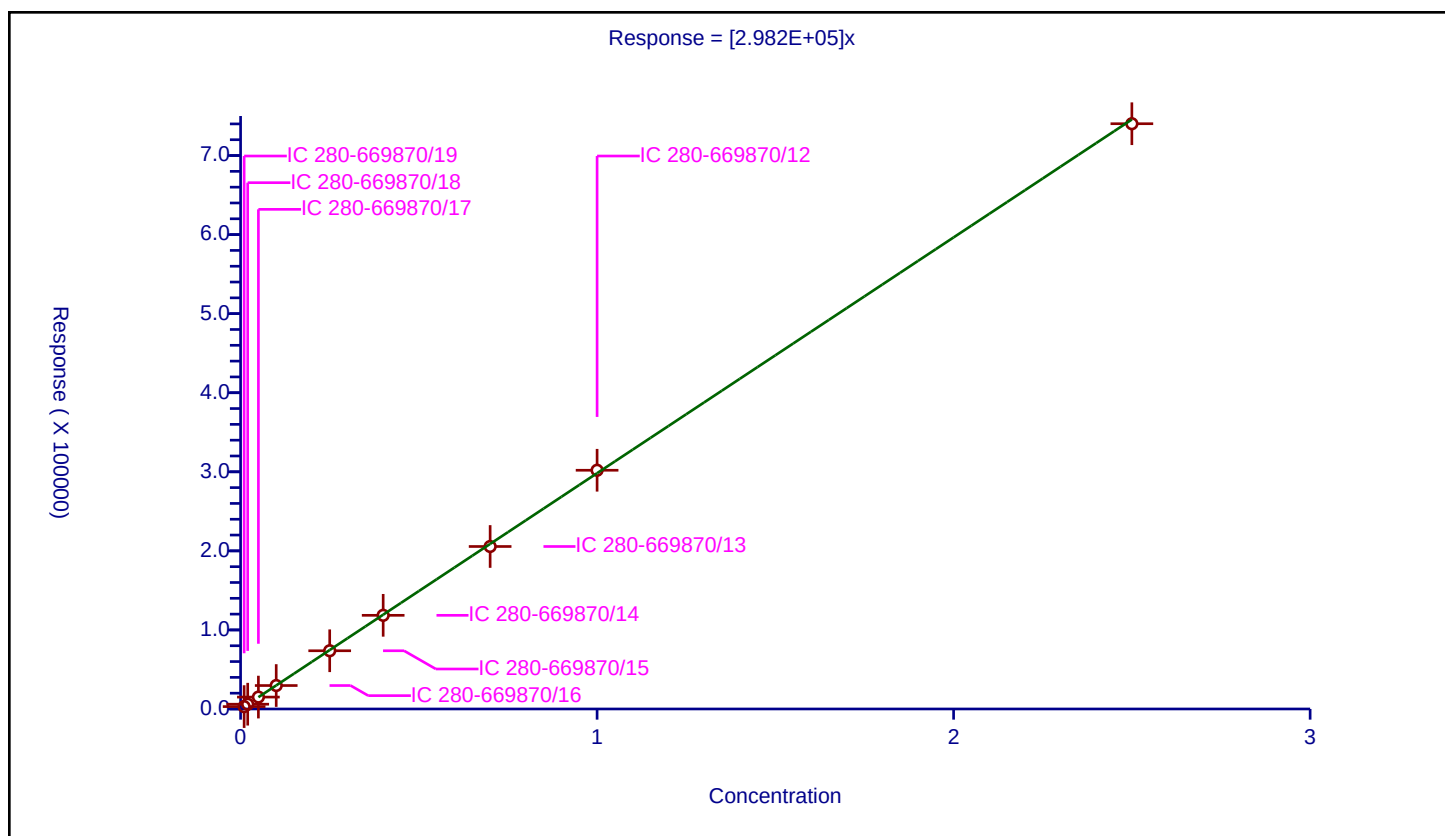
Curve Coefficients

Intercept: 0
Slope: 2.982E+05

Error Coefficients

Relative Standard Deviation: 1.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	3012.0			301200.0	Y
2	IC 280-669870/18	0.02	6054.0			302700.0	Y
3	IC 280-669870/17	0.05	15058.0			301160.0	Y
4	IC 280-669870/16	0.1	29659.0			296590.0	Y
5	IC 280-669870/15	0.25	73648.0			294592.0	Y
6	IC 280-669870/14	0.4	118487.0			296217.5	Y
7	IC 280-669870/13	0.7	205516.0			293594.285714	Y
8	IC 280-669870/12	1.0	301939.0			301939.0	Y
9	IC 280-669870/11	2.5	740236.0			296094.4	Y



Calibration

/ Nitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

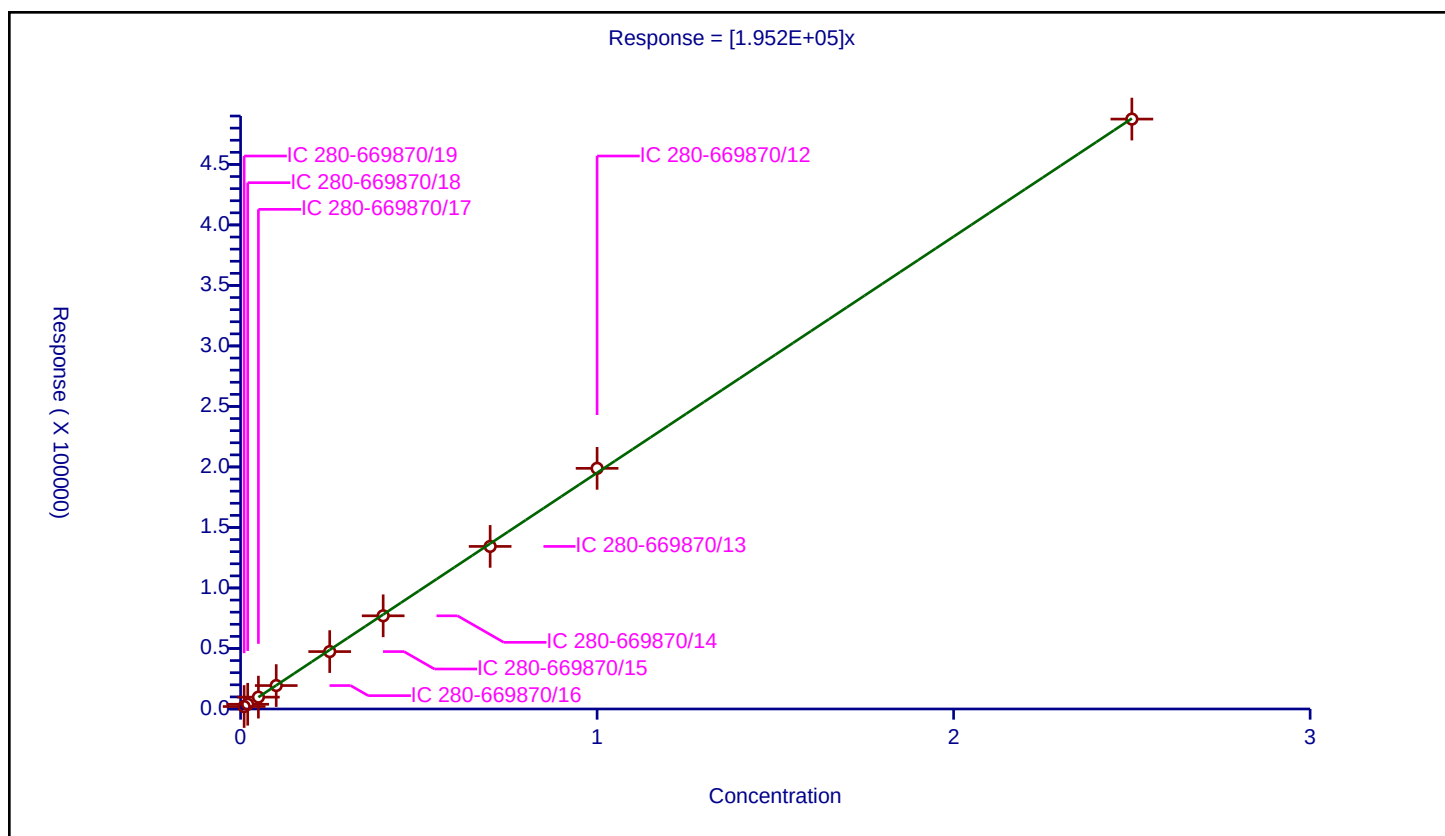
Curve Coefficients

Intercept: 0
Slope: 1.952E+05

Error Coefficients

Relative Standard Deviation: 2.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2038.0			203800.0	Y
2	IC 280-669870/18	0.02	3904.0			195200.0	Y
3	IC 280-669870/17	0.05	9801.0			196020.0	Y
4	IC 280-669870/16	0.1	19360.0			193600.0	Y
5	IC 280-669870/15	0.25	47423.0			189692.0	Y
6	IC 280-669870/14	0.4	77013.0			192532.5	Y
7	IC 280-669870/13	0.7	134331.0			191901.428571	Y
8	IC 280-669870/12	1.0	198867.0			198867.0	Y
9	IC 280-669870/11	2.5	487471.0			194988.4	Y



Calibration

/ 3,5-Dinitroaniline

Curve Type: Linear
Weighting: Conc_Sq
Origin: None
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

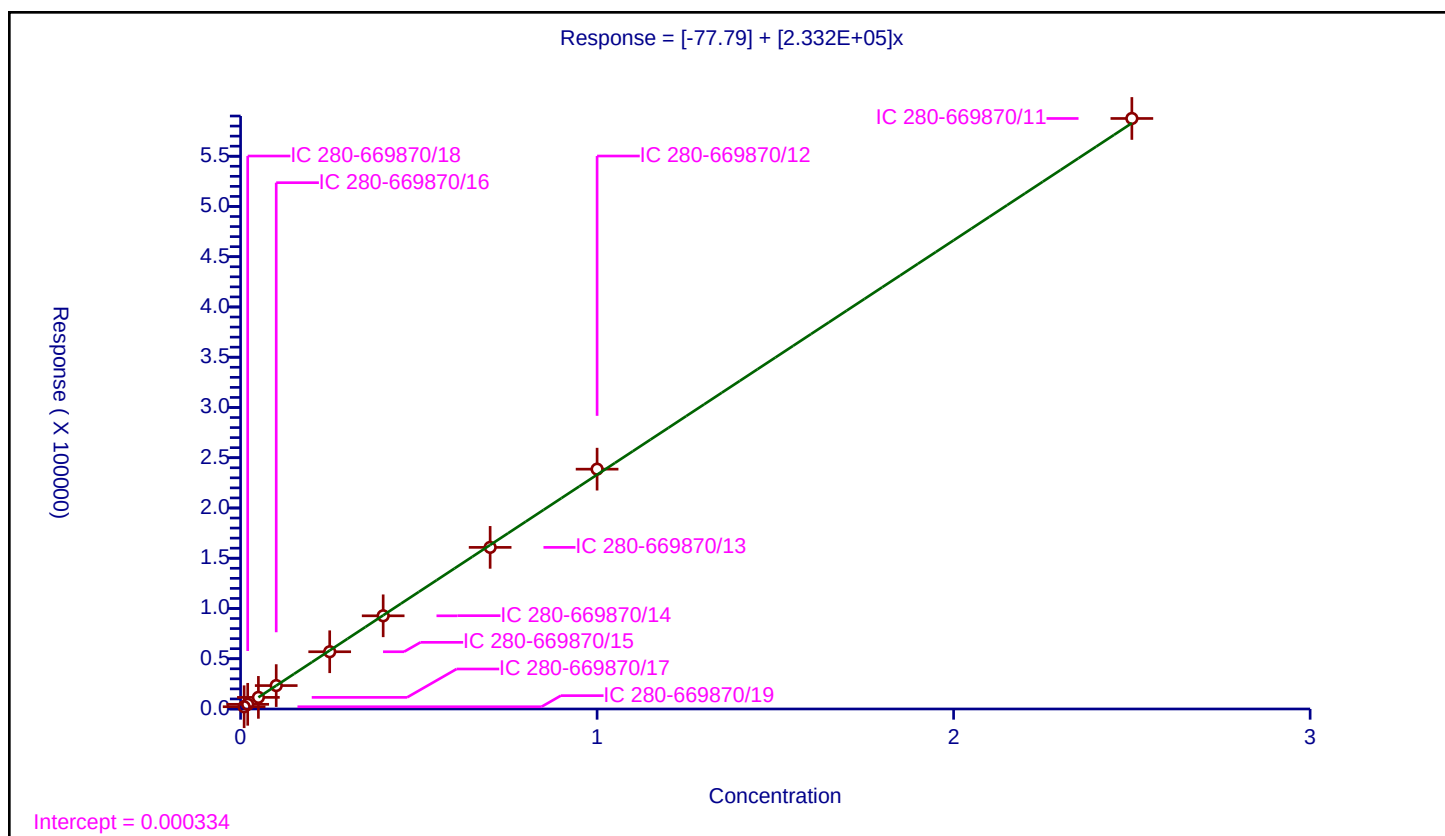
Curve Coefficients

Intercept: -77.79
Slope: 2.332E+05

Error Coefficients

Relative Standard Deviation: 1.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2237.0			223700.0	Y
2	IC 280-669870/18	0.02	4665.0			233250.0	Y
3	IC 280-669870/17	0.05	11561.0			231220.0	Y
4	IC 280-669870/16	0.1	23292.0			232920.0	Y
5	IC 280-669870/15	0.25	56945.0			227780.0	Y
6	IC 280-669870/14	0.4	92721.0			231802.5	Y
7	IC 280-669870/13	0.7	160806.0			229722.857143	Y
8	IC 280-669870/12	1.0	238621.0			238621.0	Y
9	IC 280-669870/11	2.5	587561.0			235024.4	Y



Calibration

/ Tetryl

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

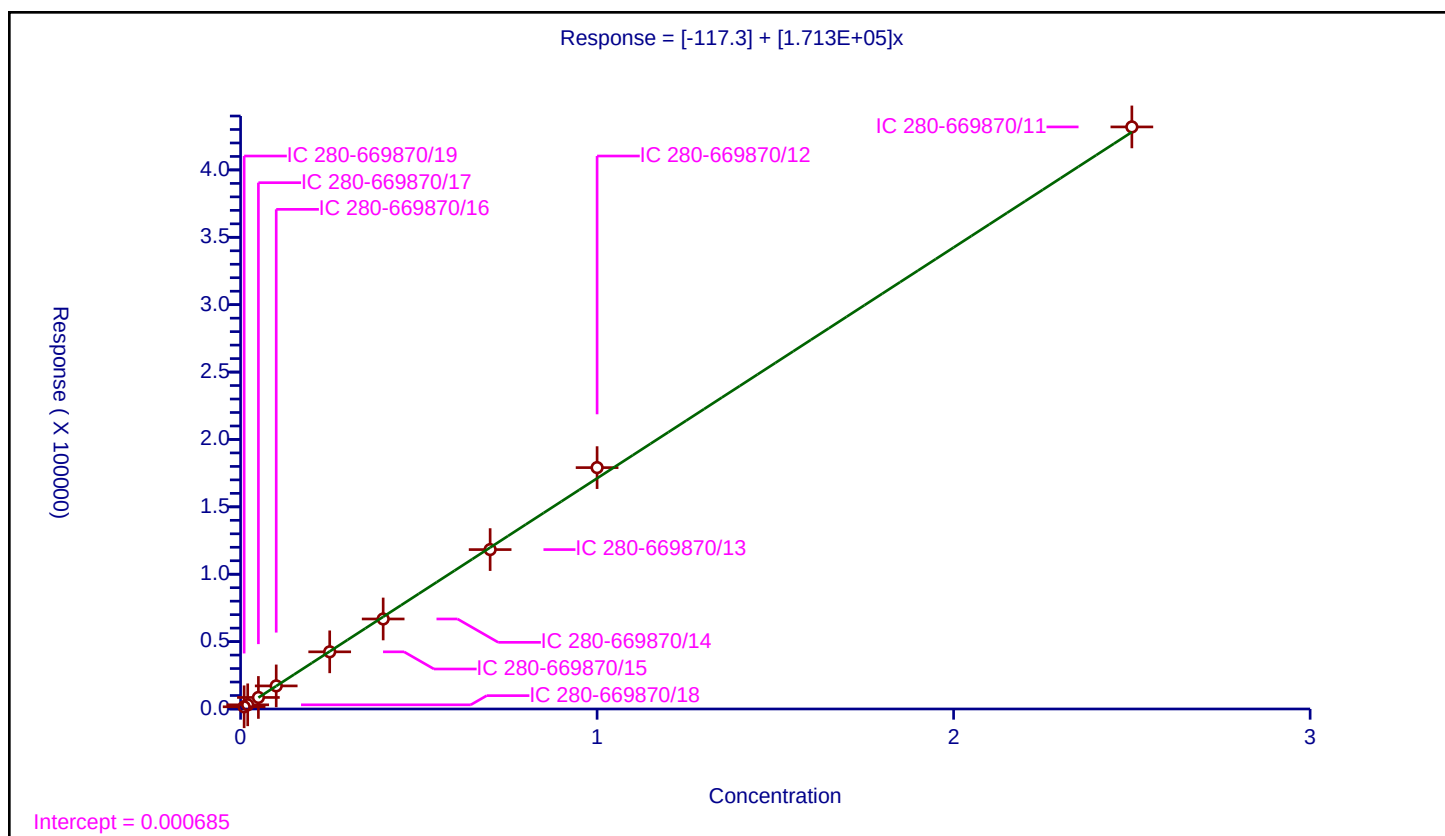
Curve Coefficients

Intercept: -117.3
 Slope: 1.713E+05

Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1642.0			164200.0	Y
2	IC 280-669870/18	0.02	3103.0			155150.0	Y
3	IC 280-669870/17	0.05	8562.0			171240.0	Y
4	IC 280-669870/16	0.1	17130.0			171300.0	Y
5	IC 280-669870/15	0.25	42416.0			169664.0	Y
6	IC 280-669870/14	0.4	66783.0			166957.5	Y
7	IC 280-669870/13	0.7	118273.0			168961.428571	Y
8	IC 280-669870/12	1.0	179110.0			179110.0	Y
9	IC 280-669870/11	2.5	431903.0			172761.2	Y



Calibration

/ Nitroglycerin

Curve Type: Linear
Weighting: Conc_Sq
Origin: None
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

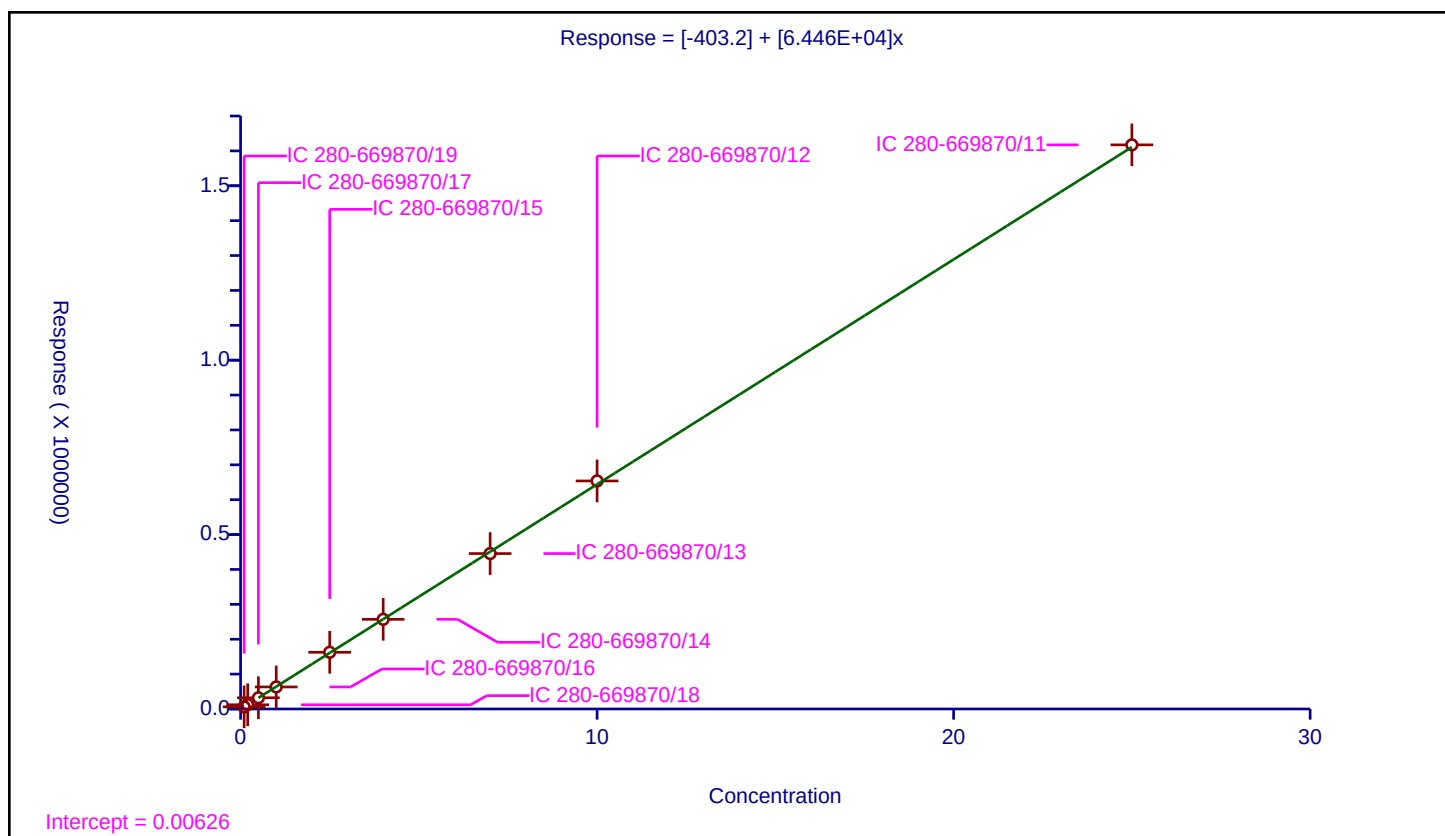
Curve Coefficients

Intercept: -403.2
Slope: 6.446E+04

Error Coefficients

Relative Standard Deviation: 1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.1	6121.0			61210.0	Y
2	IC 280-669870/18	0.2	12143.0			60715.0	Y
3	IC 280-669870/17	0.5	32159.0			64318.0	Y
4	IC 280-669870/16	1.0	63200.0			63200.0	Y
5	IC 280-669870/15	2.5	162585.0			65034.0	Y
6	IC 280-669870/14	4.0	257082.0			64270.5	Y
7	IC 280-669870/13	7.0	445595.0			63656.428571	Y
8	IC 280-669870/12	10.0	653746.0			65374.6	Y
9	IC 280-669870/11	25.0	1617250.0			64690.0	Y



Calibration

/ 2,4,6-Trinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

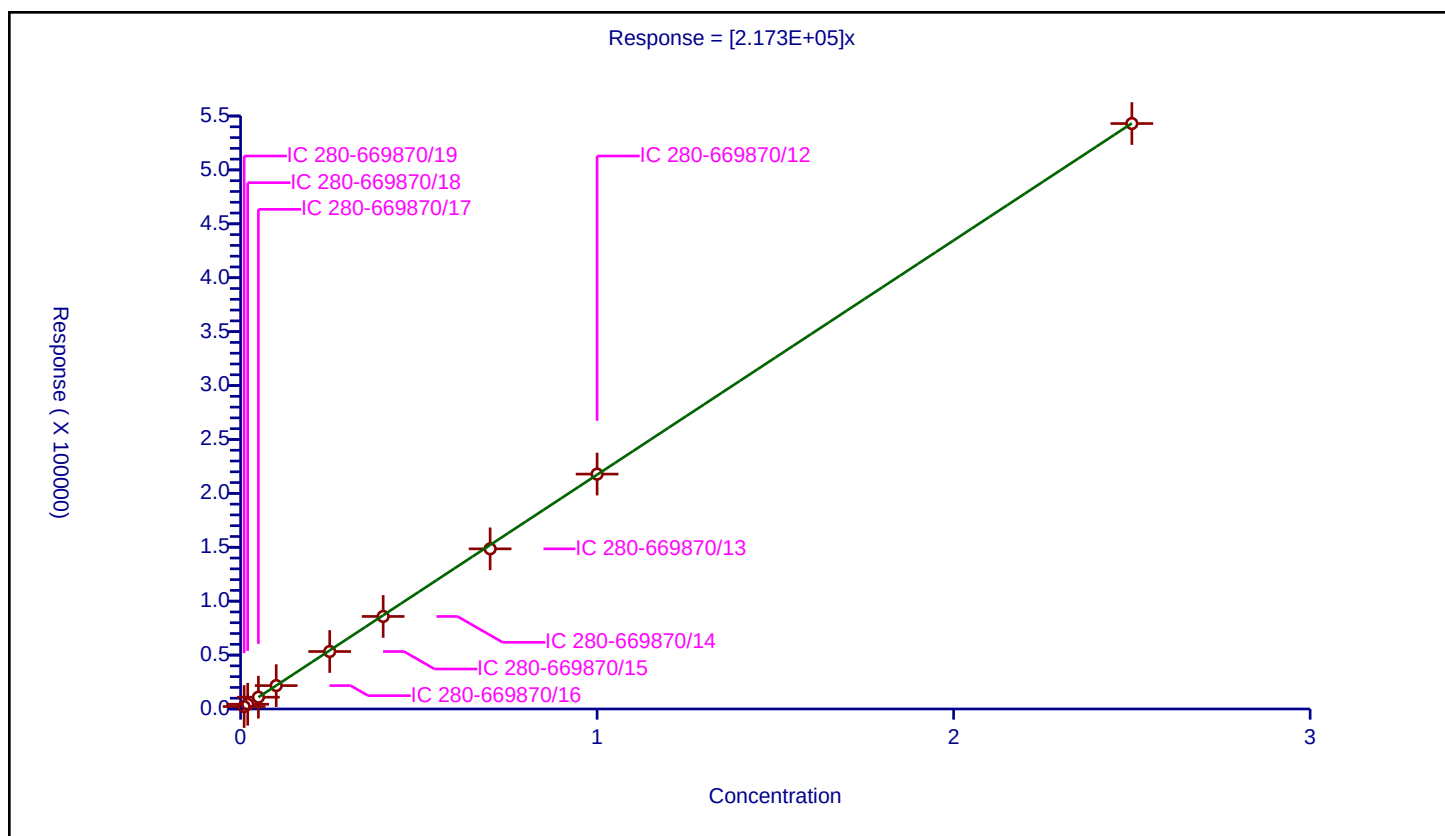
Curve Coefficients

Intercept: 0
Slope: 2.173E+05

Error Coefficients

Relative Standard Deviation: 1.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2257.0			225700.0	Y
2	IC 280-669870/18	0.02	4382.0			219100.0	Y
3	IC 280-669870/17	0.05	10944.0			218880.0	Y
4	IC 280-669870/16	0.1	21685.0			216850.0	Y
5	IC 280-669870/15	0.25	53322.0			213288.0	Y
6	IC 280-669870/14	0.4	85834.0			214585.0	Y
7	IC 280-669870/13	0.7	148548.0			212211.428571	Y
8	IC 280-669870/12	1.0	217864.0			217864.0	Y
9	IC 280-669870/11	2.5	543020.0			217208.0	Y



Calibration

/ 4-Amino-2,6-dinitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

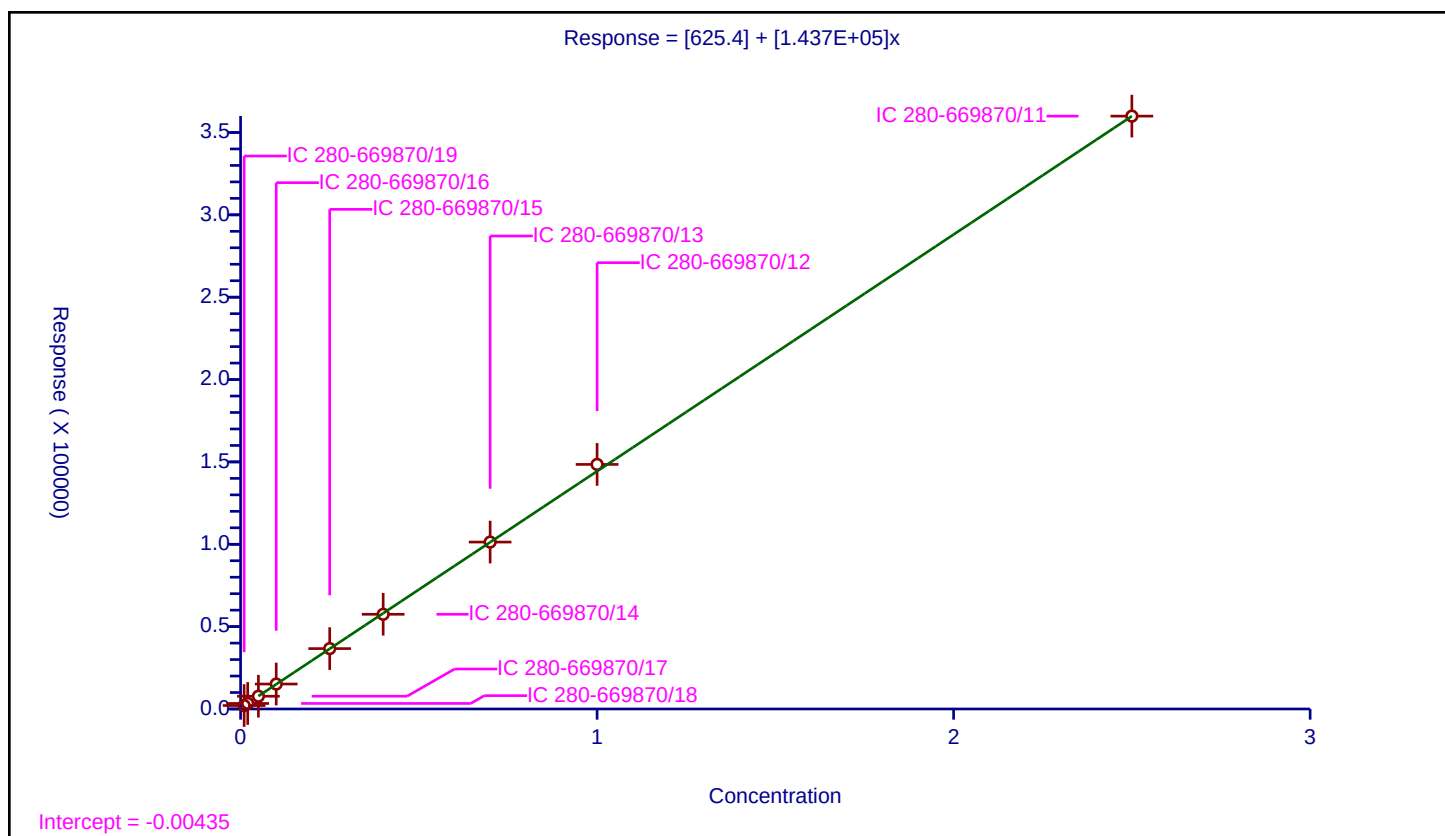
Curve Coefficients

Intercept: 625.4
 Slope: 1.437E+05

Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2099.0			209900.0	Y
2	IC 280-669870/18	0.02	3357.0			167850.0	Y
3	IC 280-669870/17	0.05	7751.0			155020.0	Y
4	IC 280-669870/16	0.1	15147.0			151470.0	Y
5	IC 280-669870/15	0.25	36669.0			146676.0	Y
6	IC 280-669870/14	0.4	57494.0			143735.0	Y
7	IC 280-669870/13	0.7	101345.0			144778.571429	Y
8	IC 280-669870/12	1.0	148480.0			148480.0	Y
9	IC 280-669870/11	2.5	359929.0			143971.6	Y



Calibration

/ 2-Amino-4,6-dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

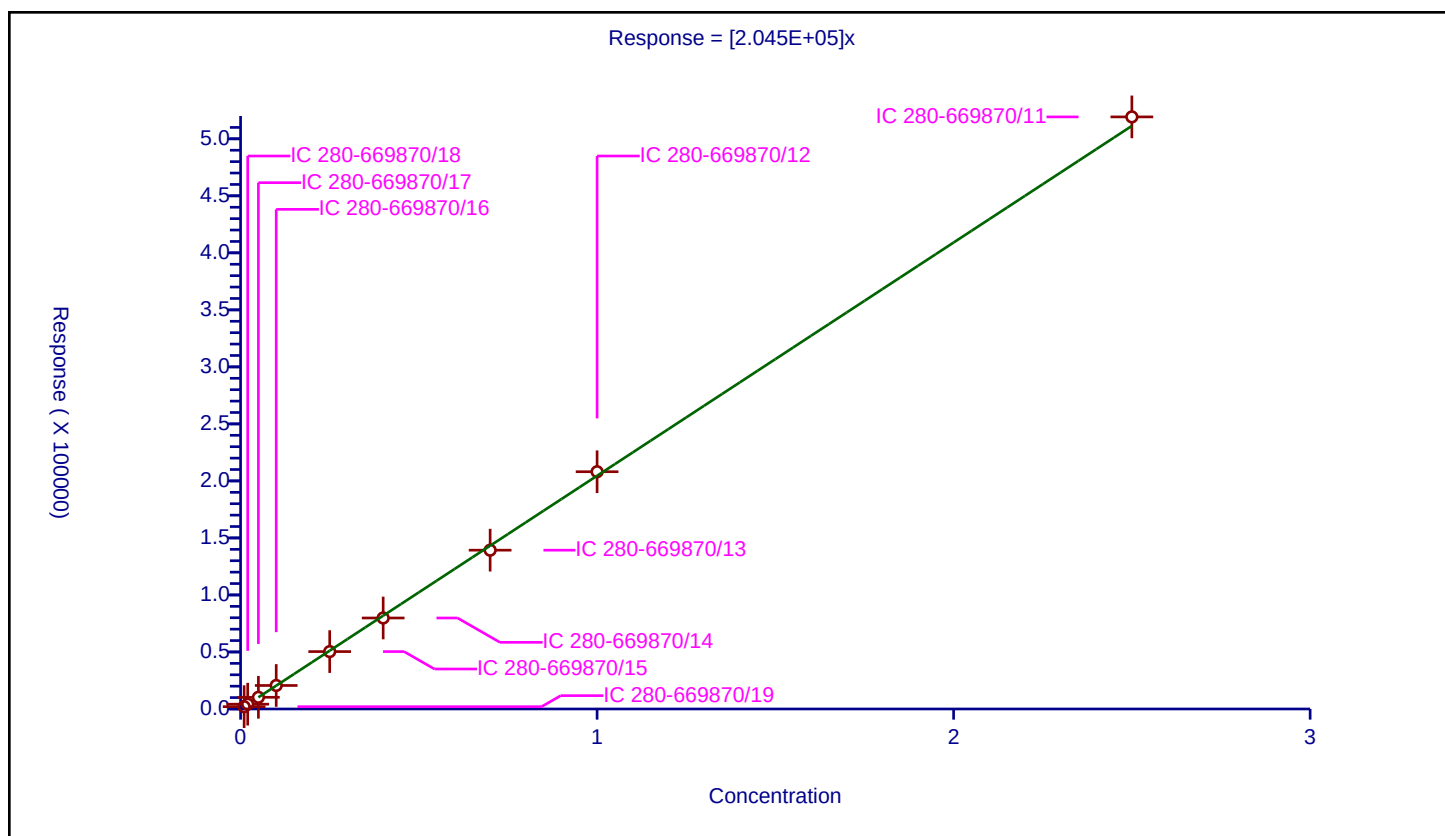
Curve Coefficients

Intercept: 0
Slope: 2.045E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2029.0			202900.0	Y
2	IC 280-669870/18	0.02	4224.0			211200.0	Y
3	IC 280-669870/17	0.05	10249.0			204980.0	Y
4	IC 280-669870/16	0.1	20612.0			206120.0	Y
5	IC 280-669870/15	0.25	50346.0			201384.0	Y
6	IC 280-669870/14	0.4	79804.0			199510.0	Y
7	IC 280-669870/13	0.7	139261.0			198944.285714	Y
8	IC 280-669870/12	1.0	208057.0			208057.0	Y
9	IC 280-669870/11	2.5	519220.0			207688.0	Y



Calibration

/ 2,6-Dinitrotoluene

Curve Type: Linear
Weighting: Conc_Sq
Origin: None
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

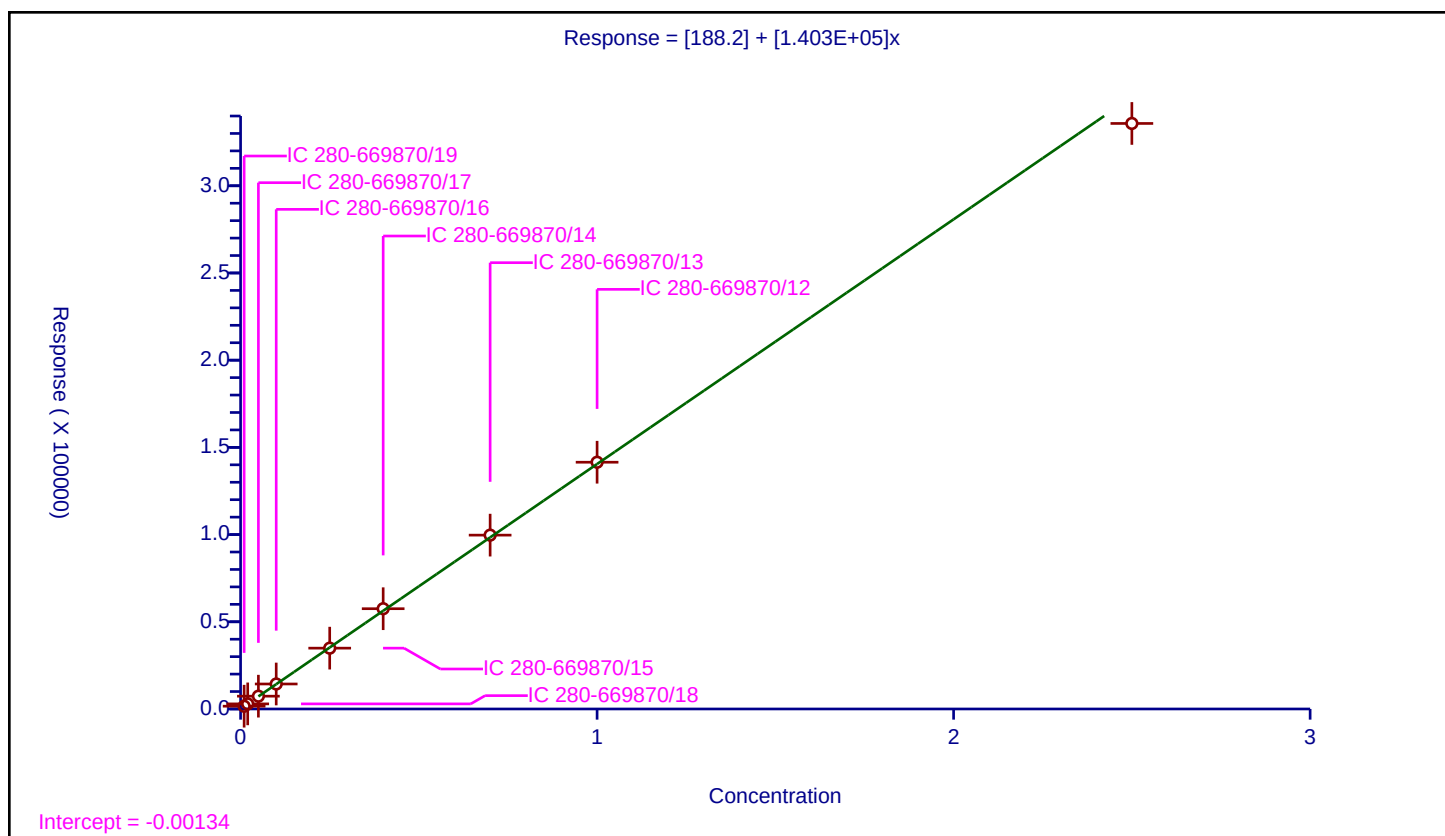
Curve Coefficients

Intercept: 188.2
Slope: 1.403E+05

Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1600.0			160000.0	Y
2	IC 280-669870/18	0.02	2929.0			146450.0	Y
3	IC 280-669870/17	0.05	7345.0			146900.0	Y
4	IC 280-669870/16	0.1	14334.0			143340.0	Y
5	IC 280-669870/15	0.25	34878.0			139512.0	Y
6	IC 280-669870/14	0.4	57501.0			143752.5	Y
7	IC 280-669870/13	0.7	99691.0			142415.714286	Y
8	IC 280-669870/12	1.0	141490.0			141490.0	Y
9	IC 280-669870/11	2.5	335728.0			134291.2	Y



Calibration

/ 2,4-Dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

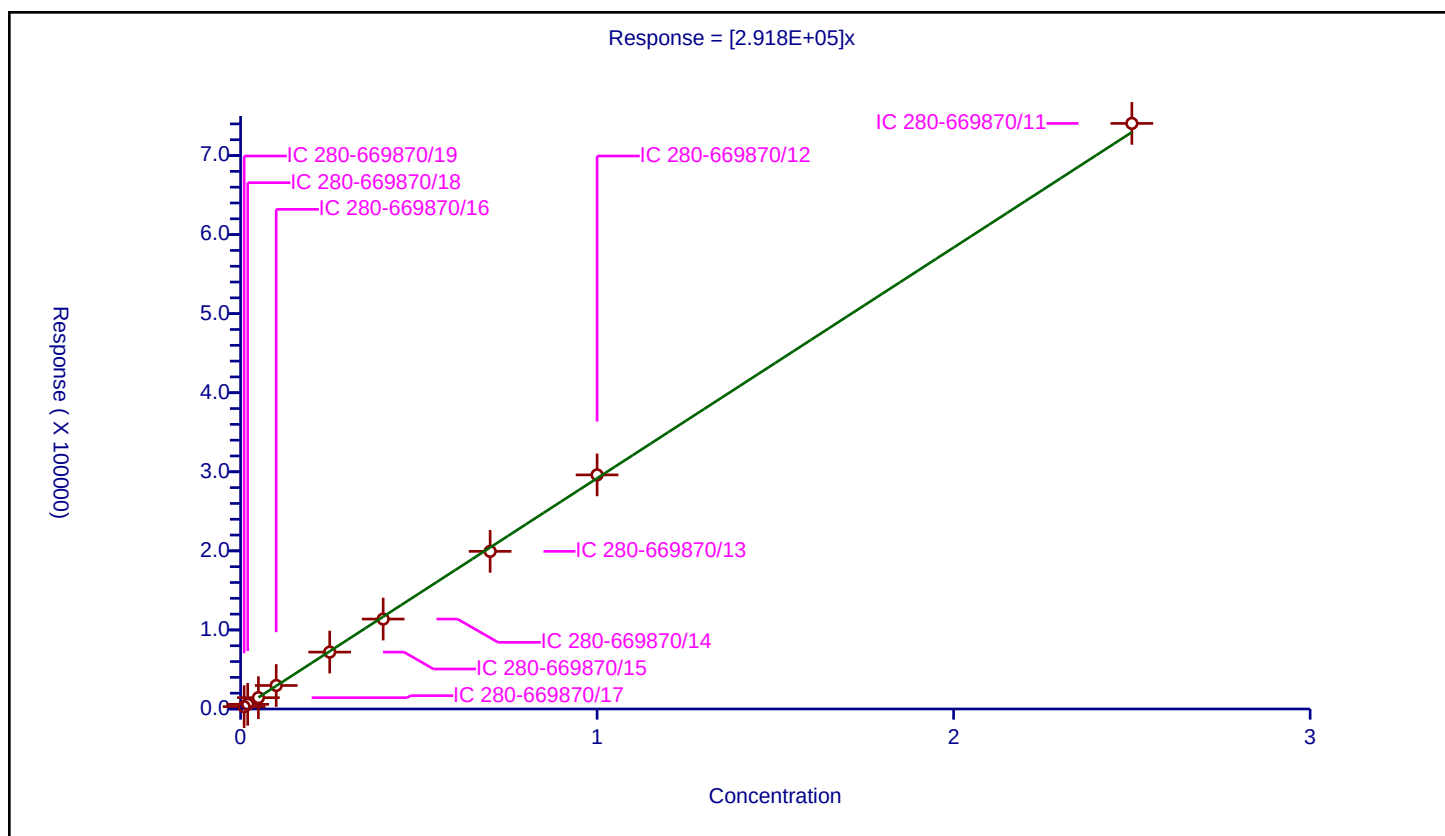
Curve Coefficients

Intercept: 0
Slope: 2.918E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	2968.0			296800.0	Y
2	IC 280-669870/18	0.02	5927.0			296350.0	Y
3	IC 280-669870/17	0.05	14328.0			286560.0	Y
4	IC 280-669870/16	0.1	29723.0			297230.0	Y
5	IC 280-669870/15	0.25	71944.0			287776.0	Y
6	IC 280-669870/14	0.4	113760.0			284400.0	Y
7	IC 280-669870/13	0.7	199392.0			284845.714286	Y
8	IC 280-669870/12	1.0	296080.0			296080.0	Y
9	IC 280-669870/11	2.5	740672.0			296268.8	Y



Calibration

/ o-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

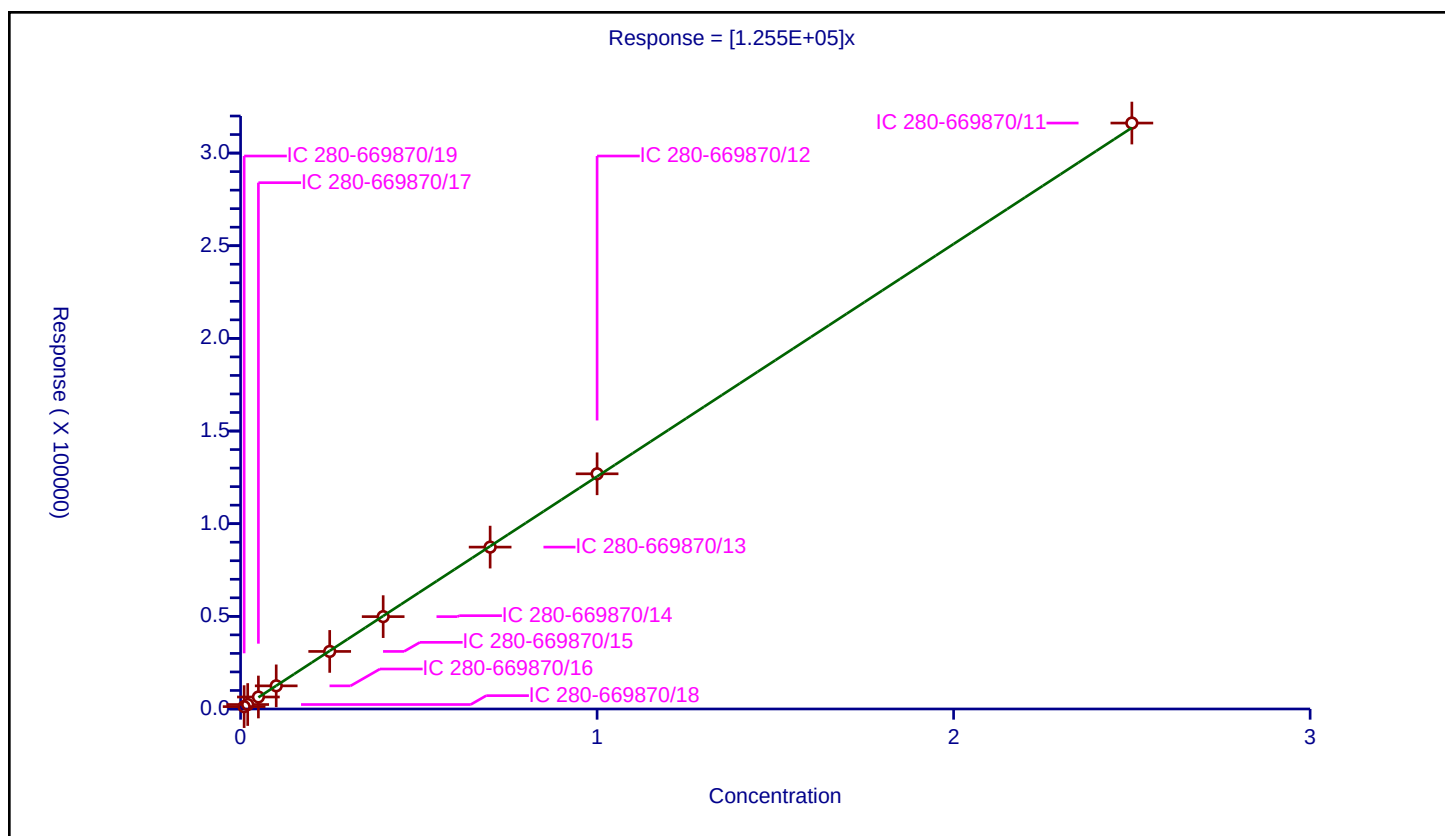
Curve Coefficients

Intercept: 0
Slope: 1.255E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1273.0			127300.0	Y
2	IC 280-669870/18	0.02	2411.0			120550.0	Y
3	IC 280-669870/17	0.05	6473.0			129460.0	Y
4	IC 280-669870/16	0.1	12487.0			124870.0	Y
5	IC 280-669870/15	0.25	31059.0			124236.0	Y
6	IC 280-669870/14	0.4	49842.0			124605.0	Y
7	IC 280-669870/13	0.7	87357.0			124795.714286	Y
8	IC 280-669870/12	1.0	126917.0			126917.0	Y
9	IC 280-669870/11	2.5	316203.0			126481.2	Y



Calibration

/ p-Nitrotoluene

Curve Type: Linear
Weighting: Conc_Sq
Origin: None
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

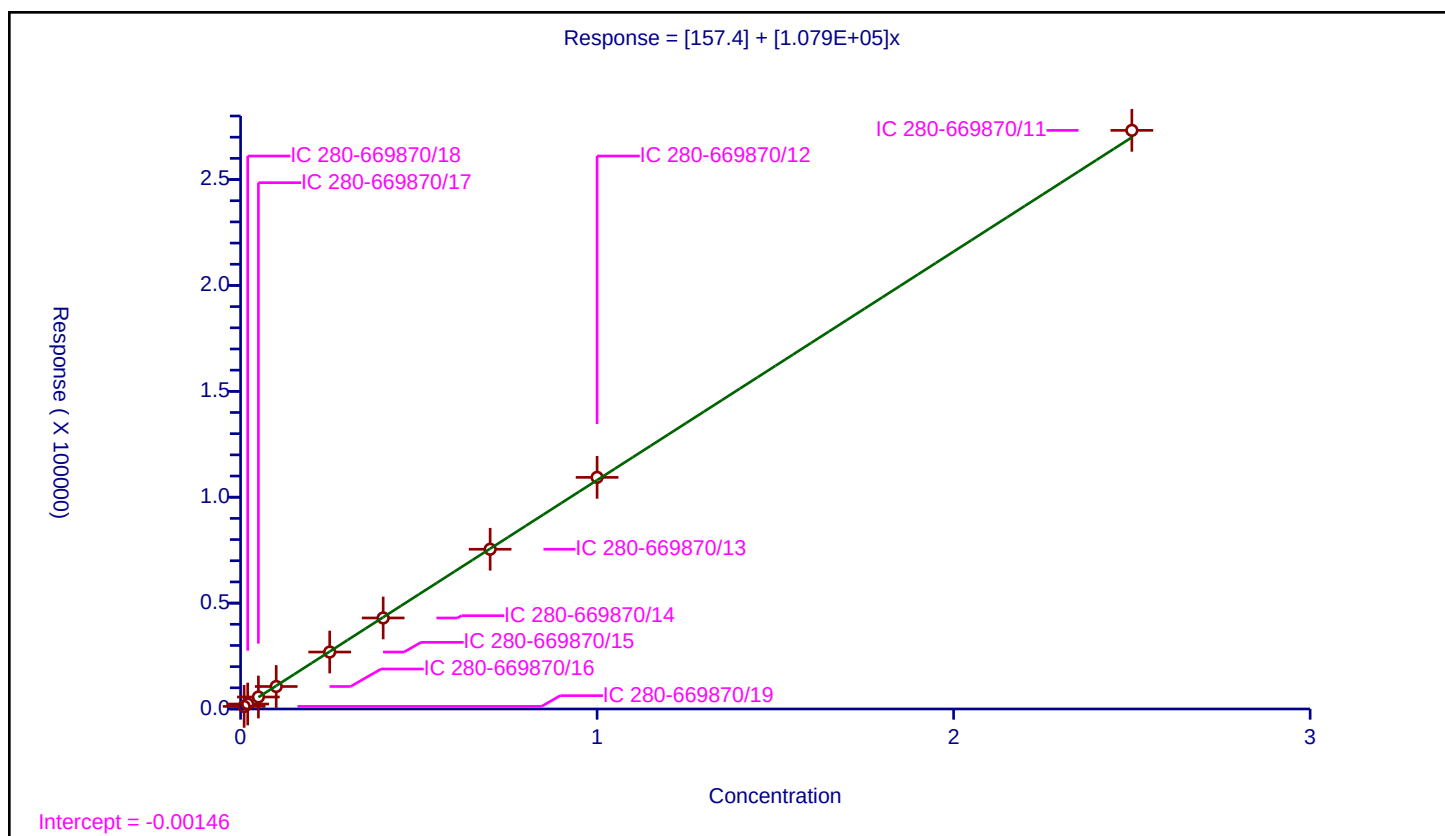
Curve Coefficients

Intercept: 157.4
Slope: 1.079E+05

Error Coefficients

Relative Standard Deviation: 1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1229.0			122900.0	Y
2	IC 280-669870/18	0.02	2343.0			117150.0	Y
3	IC 280-669870/17	0.05	5661.0			113220.0	Y
4	IC 280-669870/16	0.1	10624.0			106240.0	Y
5	IC 280-669870/15	0.25	26896.0			107584.0	Y
6	IC 280-669870/14	0.4	42988.0			107470.0	Y
7	IC 280-669870/13	0.7	75434.0			107762.857143	Y
8	IC 280-669870/12	1.0	109373.0			109373.0	Y
9	IC 280-669870/11	2.5	273226.0			109290.4	Y



Calibration

/ m-Nitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

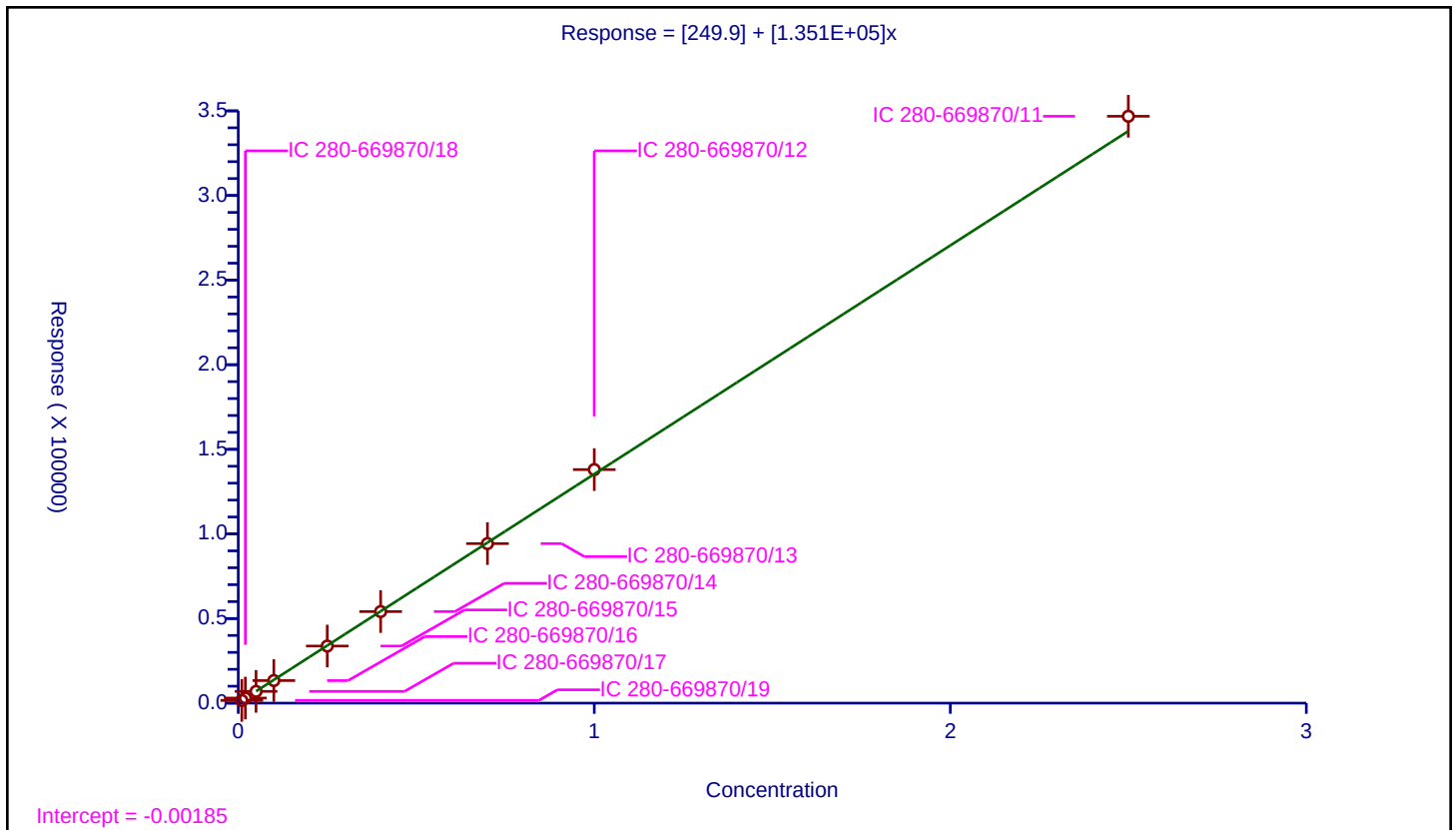
Curve Coefficients

Intercept: 249.9
 Slope: 1.351E+05

Error Coefficients

Relative Standard Deviation: 1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.01	1598.0			159800.0	Y
2	IC 280-669870/18	0.02	2992.0			149600.0	Y
3	IC 280-669870/17	0.05	6947.0			138940.0	Y
4	IC 280-669870/16	0.1	13345.0			133450.0	Y
5	IC 280-669870/15	0.25	33732.0			134928.0	Y
6	IC 280-669870/14	0.4	54100.0			135250.0	Y
7	IC 280-669870/13	0.7	94270.0			134671.428571	Y
8	IC 280-669870/12	1.0	138022.0			138022.0	Y
9	IC 280-669870/11	2.5	346817.0			138726.8	Y



Calibration

/ PETN

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

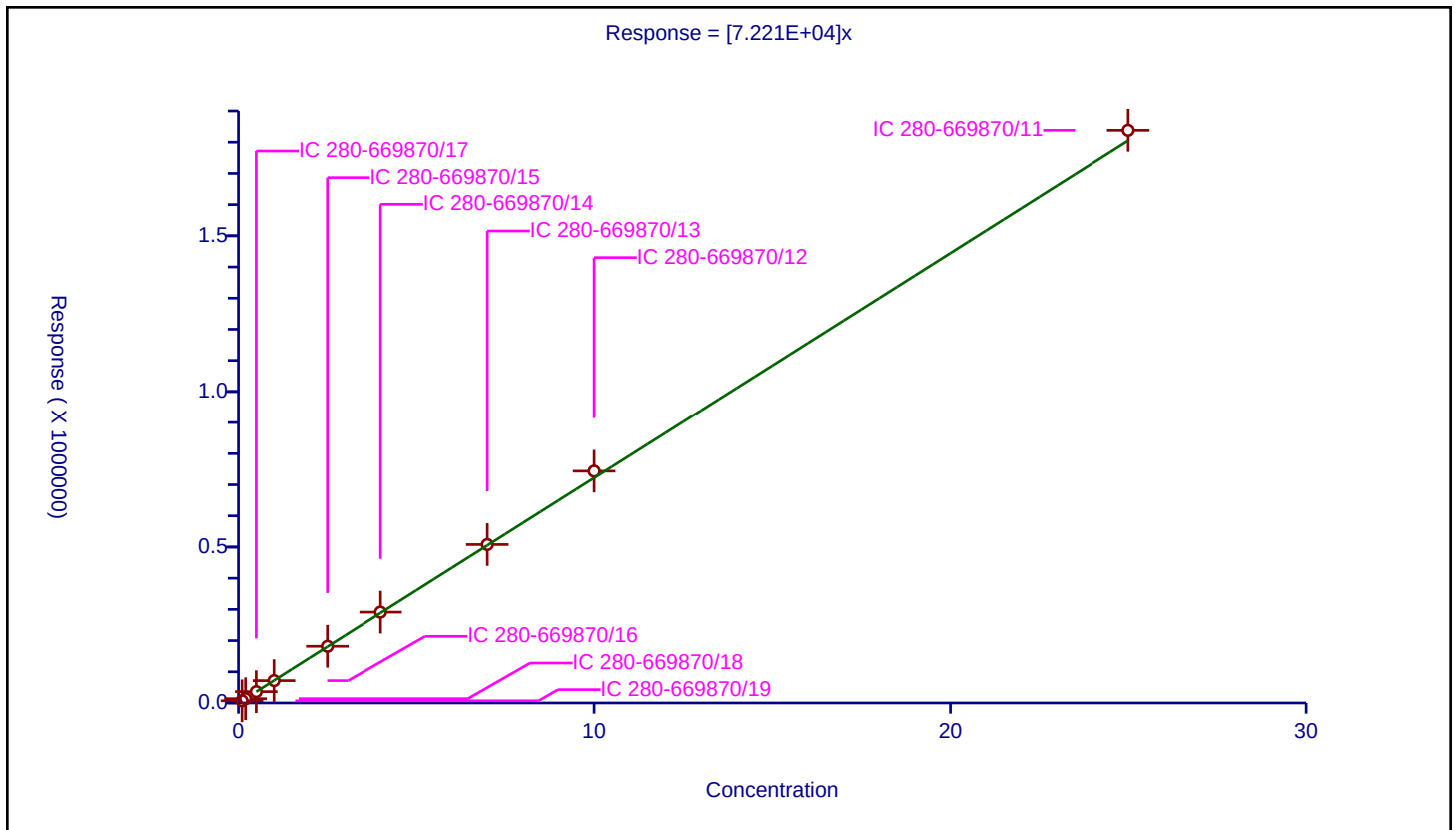
Curve Coefficients

Intercept: 0
 Slope: 7.221E+04

Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-669870/19	0.1	7053.0			70530.0	Y
2	IC 280-669870/18	0.2	13772.0			68860.0	Y
3	IC 280-669870/17	0.5	36348.0			72696.0	Y
4	IC 280-669870/16	1.0	71766.0			71766.0	Y
5	IC 280-669870/15	2.5	181859.0			72743.6	Y
6	IC 280-669870/14	4.0	291336.0			72834.0	Y
7	IC 280-669870/13	7.0	508089.0			72584.142857	Y
8	IC 280-669870/12	10.0	743747.0			74374.7	Y
9	IC 280-669870/11	25.0	1838063.0			73522.52	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 663590
SDG No.: _____
Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 08/10/2024 20:22 Calibration End Date: 08/11/2024 01:01 Calibration ID: 96518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-663590/18	08100018.D
Level 2	IC 280-663590/17	08100017.D
Level 3	IC 280-663590/16	08100016.D
Level 4	IC 280-663590/15	08100015.D
Level 5	IC 280-663590/14	08100014.D
Level 6	IC 280-663590/13	08100013.D
Level 7	IC 280-663590/12	08100012.D
Level 8	IC 280-663590/11	08100011.D
Level 9	IC 280-663590/10	08100010.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	6.324	6.336	6.325	6.327	6.324	6.334	6.325	6.309	6.272		6.174 - 6.474	6.320
Picric acid	7.864	7.870	7.865	7.861	7.810	7.827	7.785	7.756	7.625		7.660 - 7.960	7.807
RDX	8.457	8.470	8.459	8.461	8.437	8.467	8.445	8.436	8.379		8.287 - 8.587	8.446
Nitrobenzene	11.004	11.016	11.012	11.014	10.983	11.020	10.999	10.982	10.945		10.833 - 11.133	10.997
3,5-Dinitroaniline	13.511	13.516	13.512	13.514	13.470	13.520	13.492	13.476	13.438		13.320 - 13.620	13.494
1,3-Dinitrobenzene	13.851	13.863	13.858	13.861	13.823	13.874	13.845	13.829	13.798		13.673 - 13.973	13.845
Nitroglycerin	14.524	14.529	14.525	14.527	14.477	14.540	14.512	14.496	14.472		14.327 - 14.627	14.511
2-Nitrotoluene	15.031	15.036	15.038	15.041	14.990	15.054	15.025	15.016	14.985		14.840 - 15.140	15.024
4-Nitrotoluene	15.284	15.276	15.272	15.274	15.223	15.287	15.259	15.249	15.212		15.073 - 15.373	15.260
4-Amino-2,6-dinitrotoluene	15.611	15.616	15.612	15.614	15.557	15.627	15.592	15.589	15.552		15.407 - 15.707	15.597
3-Nitrotoluene	16.091	16.096	16.092	16.094	16.043	16.114	16.079	16.076	16.045		15.893 - 16.193	16.081
2-Amino-4,6-dinitrotoluene	16.364	16.363	16.358	16.361	16.310	16.374	16.339	16.336	16.292		16.160 - 16.460	16.344
1,3,5-Trinitrobenzene	16.577	16.576	16.572	16.574	16.537	16.600	16.559	16.556	16.525		16.387 - 16.687	16.564
2,6-Dinitrotoluene	17.691	17.703	17.705	17.707	17.657	17.727	17.685	17.689	17.652		17.507 - 17.807	17.691
2,4-Dinitrotoluene	18.131	18.136	18.138	18.141	18.090	18.160	18.119	18.122	18.085		17.940 - 18.240	18.125
Tetryl	21.151	21.150	21.159	21.154	21.097	21.174	21.125	21.136	21.105		20.947 - 21.247	21.139
2,4,6-Trinitrotoluene	22.017	22.023	22.025	22.027	21.977	22.047	22.012	22.009	21.985		21.827 - 22.127	22.014
PETN	23.537	23.516	23.532	23.521	23.457	23.534	23.505	23.503	23.492		23.307 - 23.607	23.511
1,2-Dinitrobenzene	11.831	11.843	11.832	11.834	11.797	11.840	11.819	11.802	11.765		11.647 - 11.947	11.818

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 663590
 SDG No.: _____
 Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 08/10/2024 20:22 Calibration End Date: 08/11/2024 01:01 Calibration ID: 96518

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-663590/18	08100018.D
Level 2	IC 280-663590/17	08100017.D
Level 3	IC 280-663590/16	08100016.D
Level 4	IC 280-663590/15	08100015.D
Level 5	IC 280-663590/14	08100014.D
Level 6	IC 280-663590/13	08100013.D
Level 7	IC 280-663590/12	08100012.D
Level 8	IC 280-663590/11	08100011.D
Level 9	IC 280-663590/10	08100010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	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	167100 187892 178359	198350 179333	182040 175713	178880 175376	Ave		180338.06 2				4.9		20.0			
Picric acid	156400 152484 150086	145900 148028	151340 146489	151030 146979	Ave		149859.40 8				2.3		20.0			
RDX	277300 214188 206076	242600 206623	218540 202049	213350 202487	Ave		220356.85 2				11.2		20.0			
Nitrobenzene	375500 387368 379398	372600 375673	381820 371520	378560 369980	Ave		376935.38 9				1.5		20.0			
3,5-Dinitroaniline	450800 452192 432321	457900 436468	439520 428406	435660 429142	Lin2	207.99101 1	435892.15 3							1.0000		0.9900
1,3-Dinitrobenzene	605900 601876 589502	577050 583780	583600 572897	578310 574265	Ave		585242.23 8				2.0		20.0			
Nitroglycerin	142060 132493 125422	120080 127644	130950 123552	127672 123497	Ave		128152.22 1				5.1		20.0			
2-Nitrotoluene	234000 239776 236821	236900 236095	238440 233080	234990 232656	Ave		235861.97 8				1.0		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 663590

SDG No.: _____

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2024 20:22 Calibration End Date: 08/11/2024 01:01 Calibration ID: 96518

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	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-Nitrotoluene	203700 219364 216000	207400 212670	216340 209859	209940 209764	Ave		211670.68 6				2.3		20.0			
4-Amino-2,6-dinitrotoluene	278700 287232 280327	272750 278370	286900 271741	278250 273020	Ave		278587.80 3				2.0		20.0			
3-Nitrotoluene	254700 265552 256553	254050 257968	266720 252994	259990 255490	Ave		258224.06 5				1.9		20.0			
2-Amino-4,6-dinitrotoluene	397200 404268 381848	389200 392835	388980 385583	386520 378245	Ave		389408.80 6				2.0		20.0			
1,3,5-Trinitrobenzene	418500 431928 436338	415750 420285	433580 411416	427420 418932	Ave		423794.25 7				2.1		20.0			
2,6-Dinitrotoluene	306500 287840 274880	307200 275720	290420 269370	279620 270535	Ave		284676.15 6				5.1		20.0			
2,4-Dinitrotoluene	593900 574708 554930	600600 555490	593380 543620	554870 545089	Ave		568509.62 2				4.0		20.0			
Tetryl	243000 301688 292584	243550 290473	314500 284443	292970 286831	Ave		283337.55 1				8.6		20.0			
2,4,6-Trinitrotoluene	408200 423736 411163	443700 410750	418720 403344	423050 403353	Ave		416224.05 4				3.1		20.0			
PETN	135550 140865 135829	136830 135773	134630 133598	135423 133762	Ave		135806.61 8				1.6		20.0			
1,2-Dinitrobenzene	258500 275348 260959	252650 261225	272100 257476	267380 256759	Ave		262488.50 2				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 663590

SDG No.: _____

Instrument ID: CHHPLC_X5 GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2024 20:22 Calibration End Date: 08/11/2024 01:01 Calibration ID: 96518

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-663590/18	08100018.D
Level 2	IC 280-663590/17	08100017.D
Level 3	IC 280-663590/16	08100016.D
Level 4	IC 280-663590/15	08100015.D
Level 5	IC 280-663590/14	08100014.D
Level 6	IC 280-663590/13	08100013.D
Level 7	IC 280-663590/12	08100012.D
Level 8	IC 280-663590/11	08100011.D
Level 9	IC 280-663590/10	08100010.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 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMx	Ave	1671 71733	3967 122999	9102 175376	17888 445898	46973	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1564 59211	2918 102542	7567 146979	15103 375214	38121	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2773 82649	4852 141434	10927 202487	21335 515189	53547	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3755 150269	7452 260064	19091 369980	37856 948495	96842	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4508 174587	9158 299884	21976 429142	43566 1080802	113048	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6059 233512	11541 401028	29180 574265	57831 1473755	150469	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	14206 510574	24016 864867	65475 1234967	127672 3135554	331233	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2340 94438	4738 163156	11922 232656	23499 592052	59944	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	2037 85068	4148 146901	10817 209764	20994 539999	54841	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	2787 111348	5455 190219	14345 273020	27825 700817	71808	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	2547 103187	5081 177096	13336 255490	25999 641382	66388	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	3972 157134	7784 269908	19449 378245	38652 954621	101067	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	4185 168114	8315 287991	21679 418932	42742 1090844	107982	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3065 110288	6144 188559	14521 270535	27962 687201	71960	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5939	12012	29669	55487	143677	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-197842-1 Analy Batch No.: 663590
SDG No.: _____
Instrument ID: CHHPLC_X5 GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N
Calibration Start Date: 08/10/2024 20:22 Calibration End Date: 08/11/2024 01:01 Calibration ID: 96518

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
		222196	380534	545089	1387324		0.400	0.700	1.00	2.50	
Tetryl	Ave	2430	4871	15725	29297	75422	0.0100	0.0200	0.0500	0.100	0.250
		116189	199110	286831	731459		0.400	0.700	1.00	2.50	
2,4,6-Trinitrotoluene	Ave	4082	8874	20936	42305	105934	0.0100	0.0200	0.0500	0.100	0.250
		164300	282341	403353	1027908		0.400	0.700	1.00	2.50	
PETN	Ave	13555	27366	67315	135423	352162	0.100	0.200	0.500	1.00	2.50
		543090	935188	1337623	3395717		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	2585	5053	13605	26738	68837	0.0100	0.0200	0.0500	0.100	0.250
		104490	180233	256759	652397		0.400	0.700	1.00	2.50	

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100010.D
 Lims ID: IC INT 9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 10-Aug-2024 20:22:02 ALS Bottle#: 10 Worklist Smp#: 10
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: IC INT 9
 Operator ID: JZ Instrument ID: CHHPLC_X5
 Sublist: chrom-8330_X5_Luna*sub7
 Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 13-Aug-2024 15:40:38 Calib Date: 11-Aug-2024 06:16:04
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
 Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 13:45:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.272	6.324	-0.052	445898	2.50	2.47	
7 2,4,6-Trinitrophenol	1	7.625	7.810	-0.185	375214	2.50	2.50	a
8 RDX	1	8.379	8.437	-0.058	515189	2.50	2.34	
9 Nitrobenzene	1	10.945	10.983	-0.038	948495	2.50	2.52	
\$ 10 1,2-Dinitrobenzene	1	11.765	11.797	-0.032	652397	2.50	2.49	
11 3,5-Dinitroaniline	1	13.438	13.470	-0.032	1080802	2.50	2.48	
12 1,3-Dinitrobenzene	1	13.798	13.823	-0.025	1473755	2.50	2.52	
13 Nitroglycerin	2	14.472	14.477	-0.005	3135554	25.0	24.5	
14 o-Nitrotoluene	1	14.985	14.990	-0.005	592052	2.50	2.51	
16 p-Nitrotoluene	1	15.212	15.223	-0.011	539999	2.50	2.55	
17 4-Amino-2,6-dinitrotoluene	1	15.552	15.557	-0.005	700817	2.50	2.52	
18 m-Nitrotoluene	1	16.045	16.043	0.002	641382	2.50	2.48	
19 2-Amino-4,6-dinitrotoluene	1	16.292	16.310	-0.018	954621	2.50	2.45	
20 1,3,5-Trinitrobenzene	1	16.525	16.537	-0.012	1090844	2.50	2.57	
21 2,6-Dinitrotoluene	1	17.652	17.657	-0.005	687201	2.50	2.41	
22 2,4-Dinitrotoluene	1	18.085	18.090	-0.005	1387324	2.50	2.44	
23 Tetryl	1	21.105	21.097	0.008	731459	2.50	2.58	M
24 2,4,6-Trinitrotoluene	1	21.985	21.977	0.008	1027908	2.50	2.47	M
25 PETN	2	23.492	23.457	0.035	3395717	25.0	25.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 250.00

Units: uL

Report Date: 13-Aug-2024 15:40:38

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100010.D

Injection Date: 10-Aug-2024 20:22:02

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 9

Worklist Smp#: 10

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

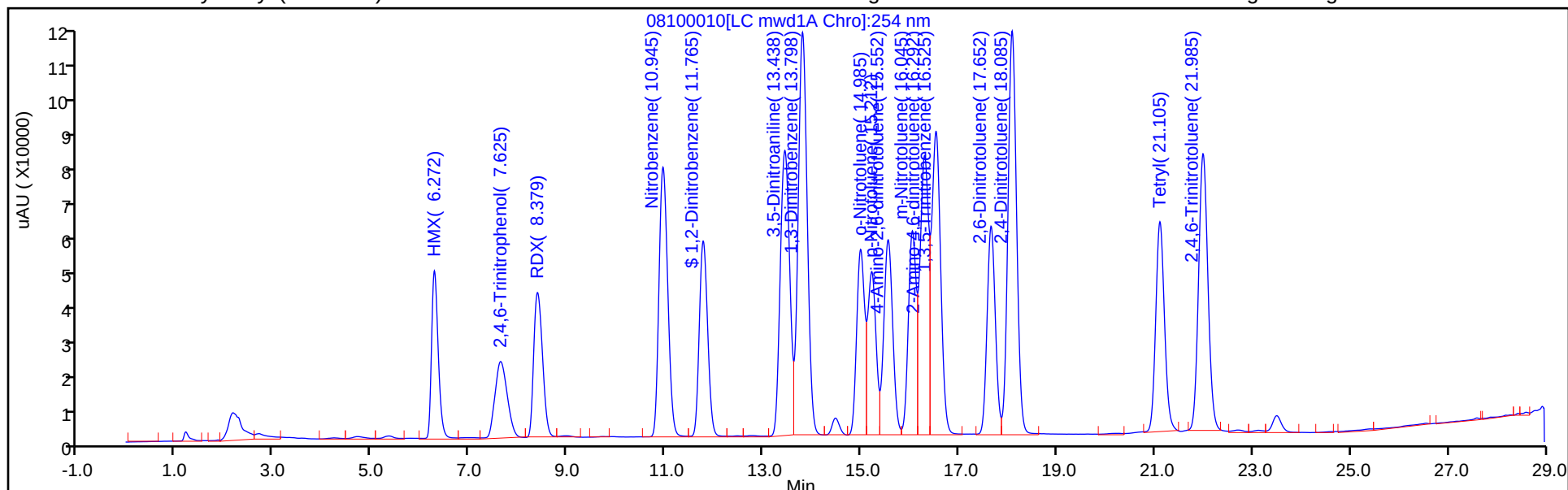
ALS Bottle#: 10

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

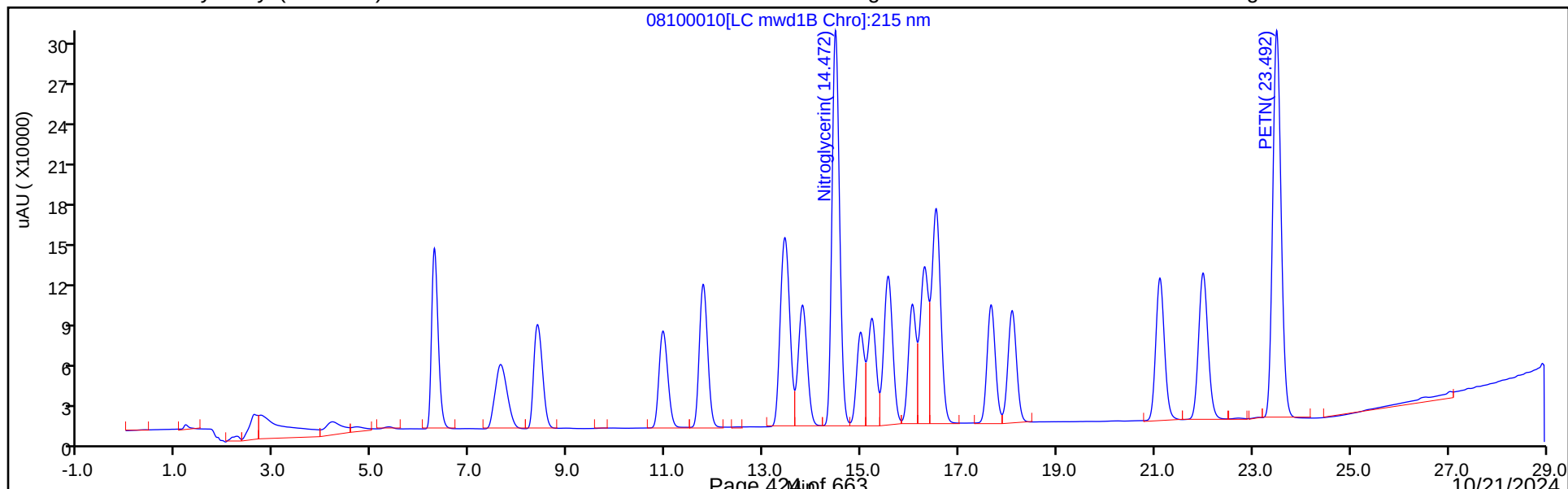
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

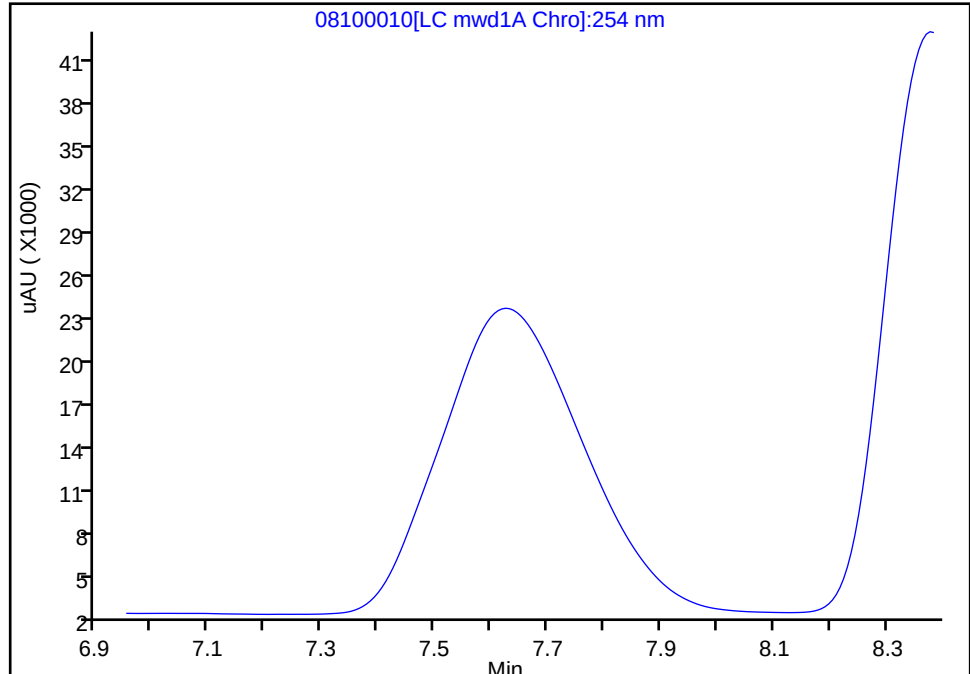
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100010.D
Injection Date: 10-Aug-2024 20:22:02 Instrument ID: CHHPLC_X5
Lims ID: IC INT 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

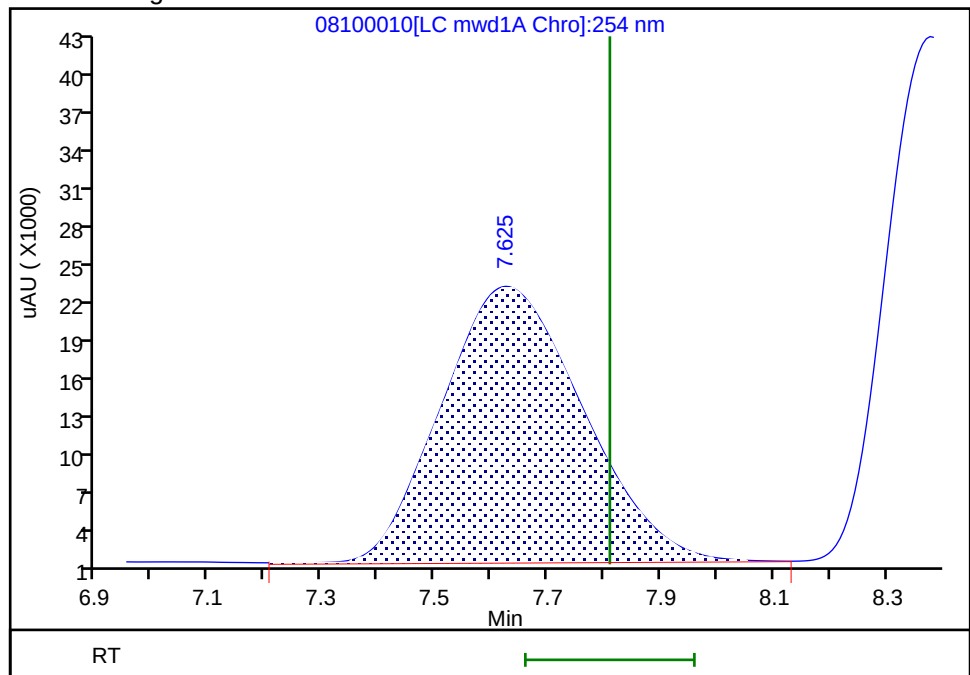
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.63
Area: 375214
Amount: 2.503773
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 13:45:56 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

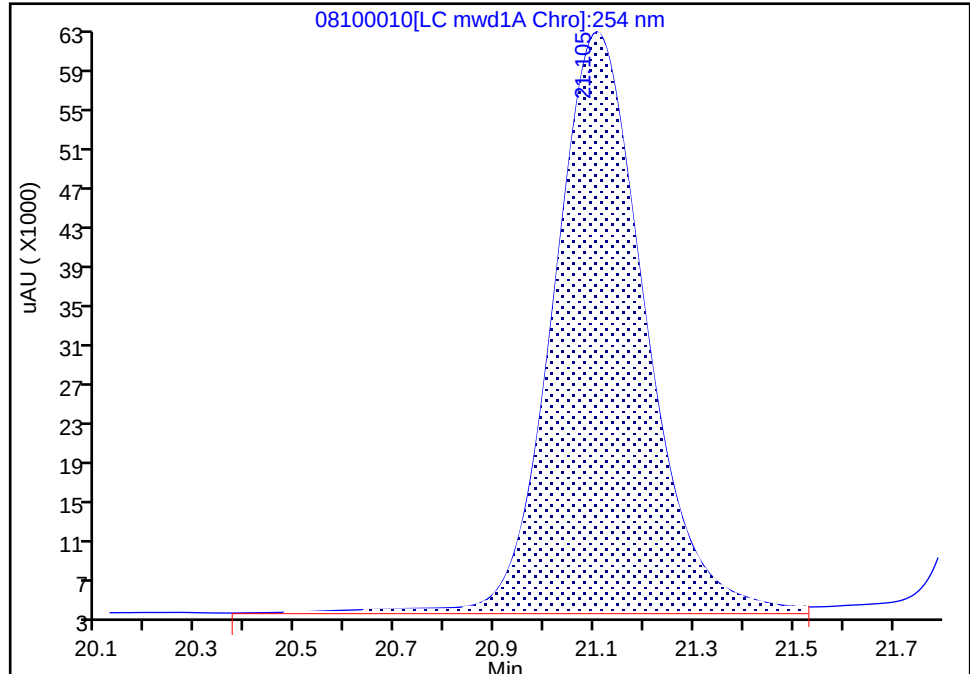
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100010.D
Injection Date: 10-Aug-2024 20:22:02 Instrument ID: CHHPLC_X5
Lims ID: IC INT 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

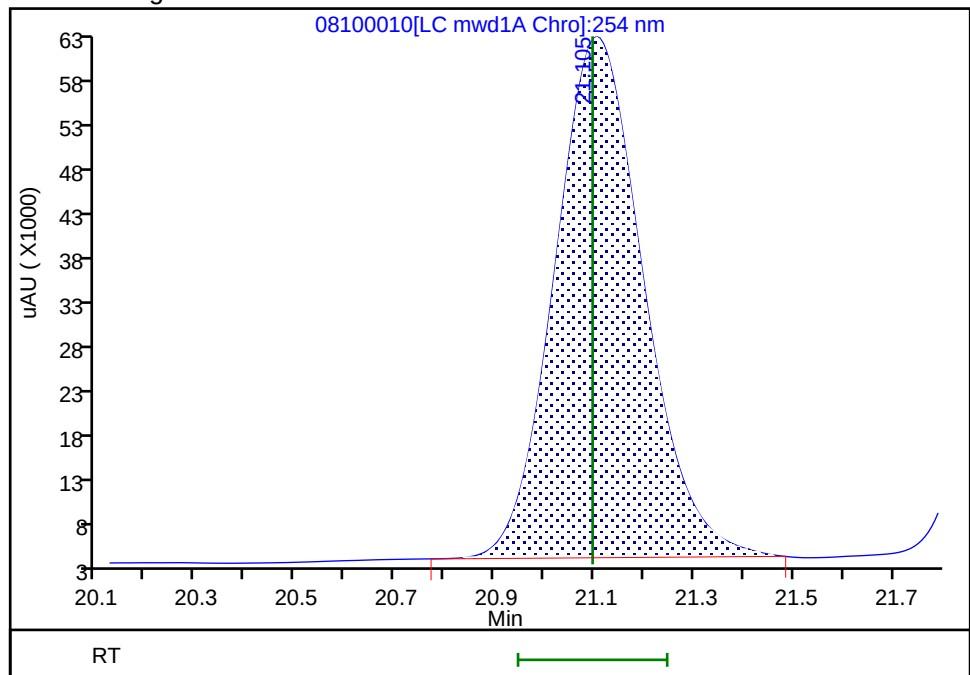
RT: 21.11
Area: 772503
Amount: 2.511632
Amount Units: ug/ml

Processing Integration Results



RT: 21.11
Area: 731459
Amount: 2.581582
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:16:52 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

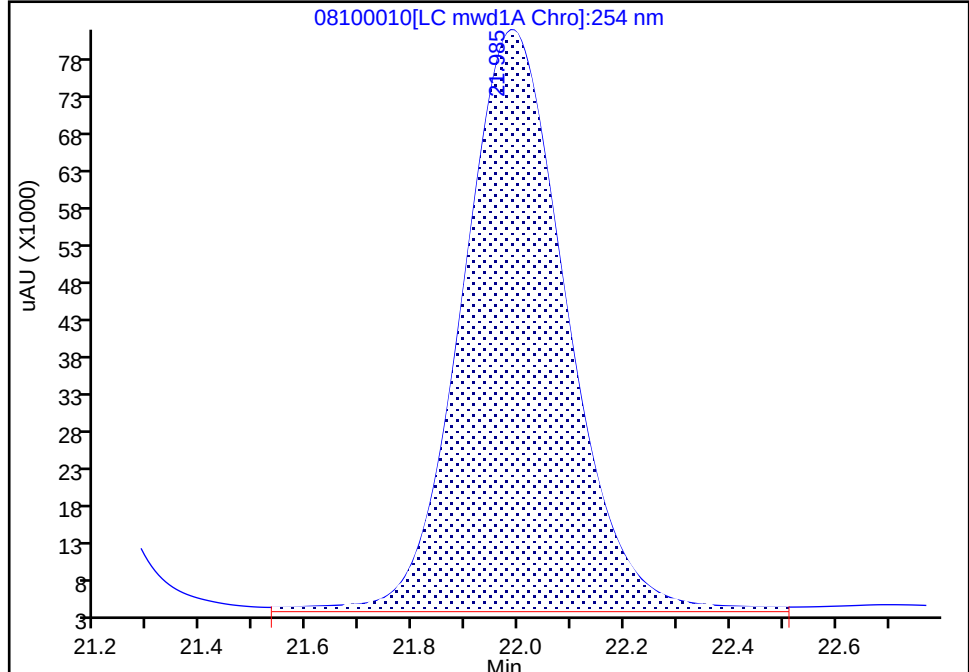
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100010.D
Injection Date: 10-Aug-2024 20:22:02 Instrument ID: CHHPLC_X5
Lims ID: IC INT 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

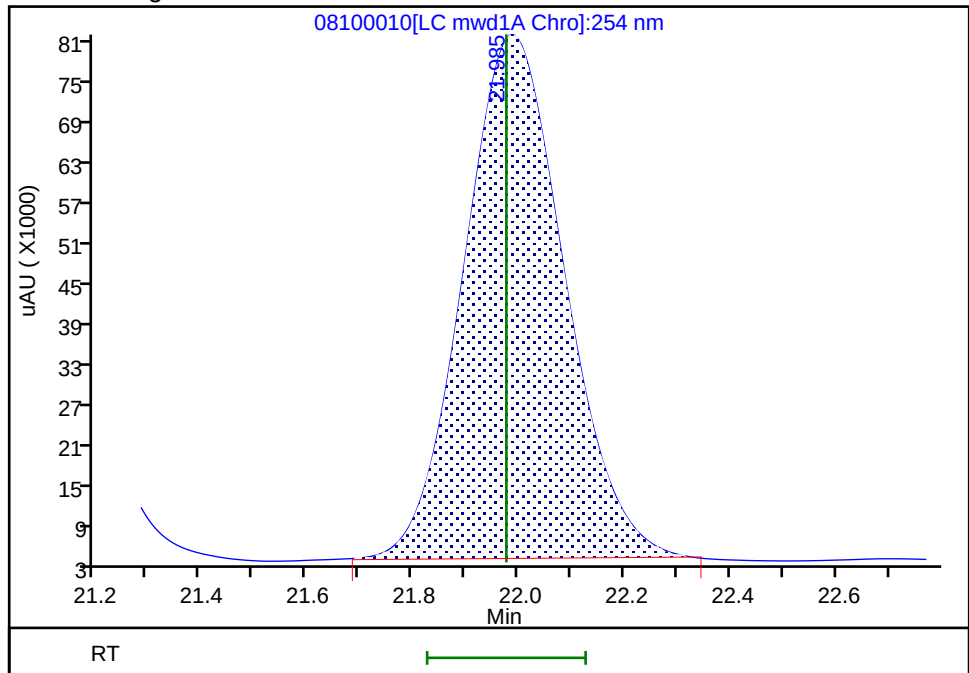
RT: 21.99
Area: 1083310
Amount: 2.337258
Amount Units: ug/ml

Processing Integration Results



RT: 21.99
Area: 1027908
Amount: 2.469603
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 10-Aug-2024 20:57:00 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:38 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:11:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.309	6.324	-0.015	175376	1.00	0.9725	
7 2,4,6-Trinitrophenol	1	7.756	7.810	-0.054	146979	1.00	0.9808	a
8 RDX	1	8.436	8.437	-0.001	202487	1.00	0.9189	
9 Nitrobenzene	1	10.982	10.983	-0.001	369980	1.00	0.9815	
\$ 10 1,2-Dinitrobenzene	1	11.802	11.797	0.005	256759	1.00	0.9782	
11 3,5-Dinitroaniline	1	13.476	13.470	0.006	429142	1.00	0.9840	
12 1,3-Dinitrobenzene	1	13.829	13.823	0.006	574265	1.00	0.9812	
13 Nitroglycerin	2	14.496	14.477	0.019	1234967	10.0	9.64	
14 o-Nitrotoluene	1	15.016	14.990	0.026	232656	1.00	0.9864	
16 p-Nitrotoluene	1	15.249	15.223	0.026	209764	1.00	0.99	
17 4-Amino-2,6-dinitrotoluene	1	15.589	15.557	0.032	273020	1.00	0.9800	
18 m-Nitrotoluene	1	16.076	16.043	0.033	255490	1.00	0.9894	
19 2-Amino-4,6-dinitrotoluene	1	16.336	16.310	0.026	378245	1.00	0.9713	
20 1,3,5-Trinitrobenzene	1	16.556	16.537	0.019	418932	1.00	0.9885	
21 2,6-Dinitrotoluene	1	17.689	17.657	0.032	270535	1.00	0.9503	
22 2,4-Dinitrotoluene	1	18.122	18.090	0.032	545089	1.00	0.9588	
23 Tetryl	1	21.136	21.097	0.039	286831	1.00	1.01	M
24 2,4,6-Trinitrotoluene	1	22.009	21.977	0.032	403353	1.00	0.9691	M
25 PETN	2	23.503	23.457	0.046	1337623	10.0	9.85	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 100.00

Units: uL

Report Date: 13-Aug-2024 15:40:39

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100011.D

Injection Date: 10-Aug-2024 20:57:00

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 8

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

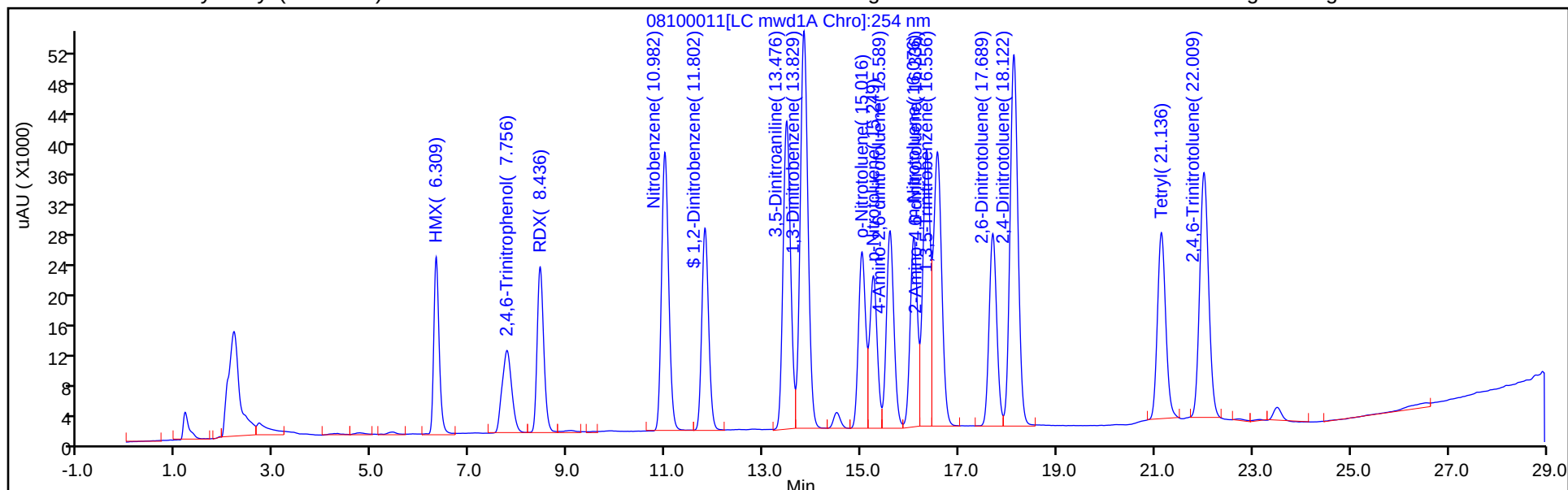
ALS Bottle#: 11

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

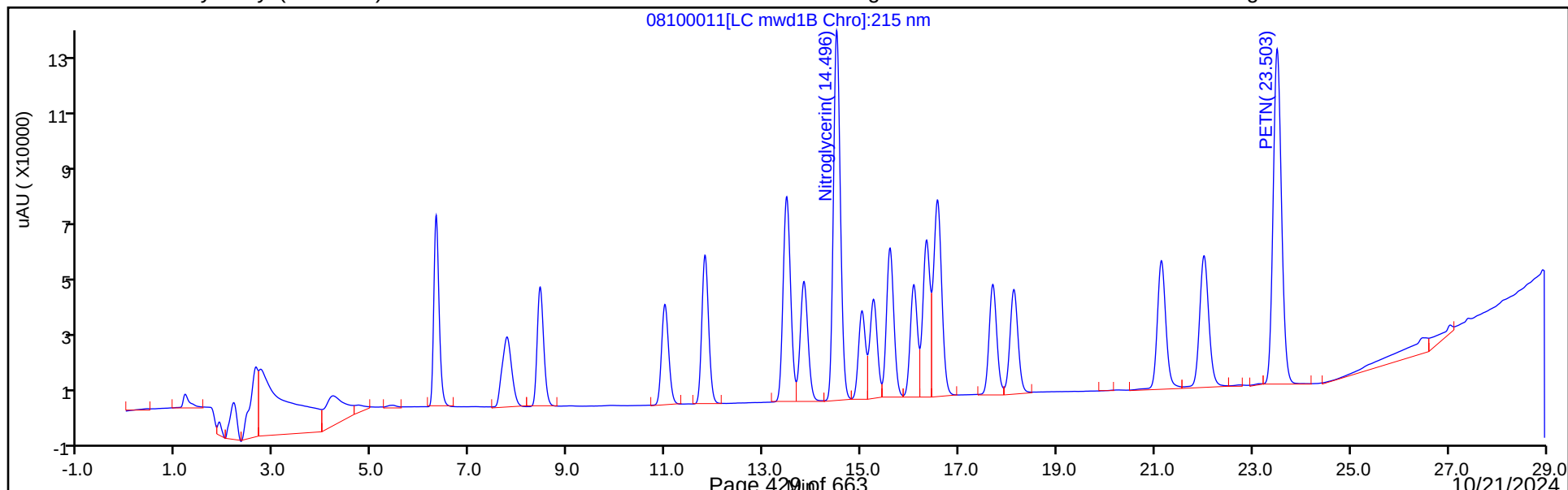
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

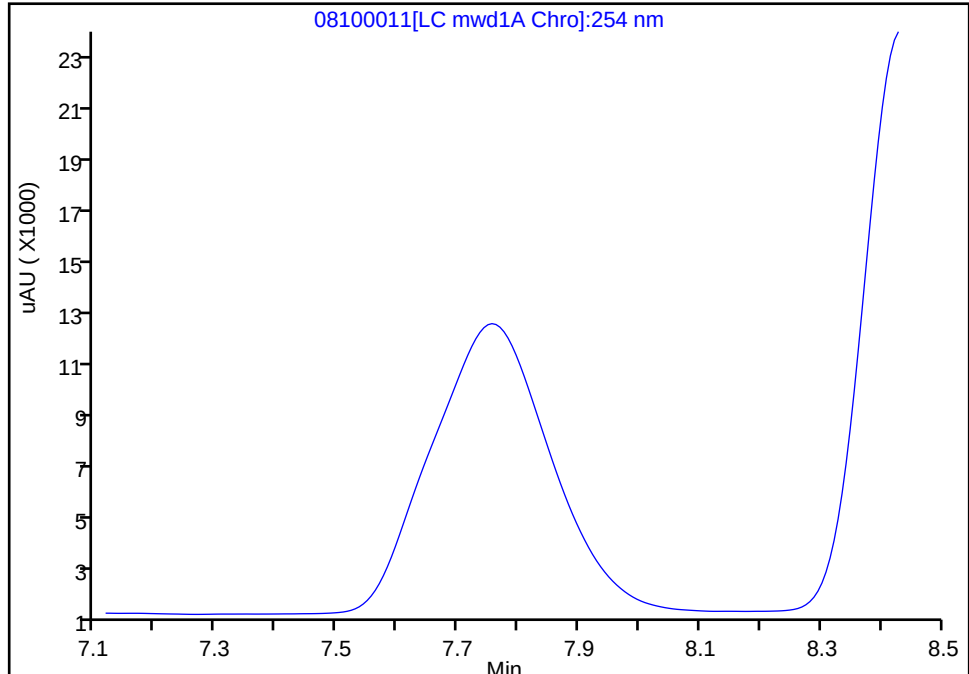
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100011.D
Injection Date: 10-Aug-2024 20:57:00 Instrument ID: CHHPLC_X5
Lims ID: IC INT 8
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

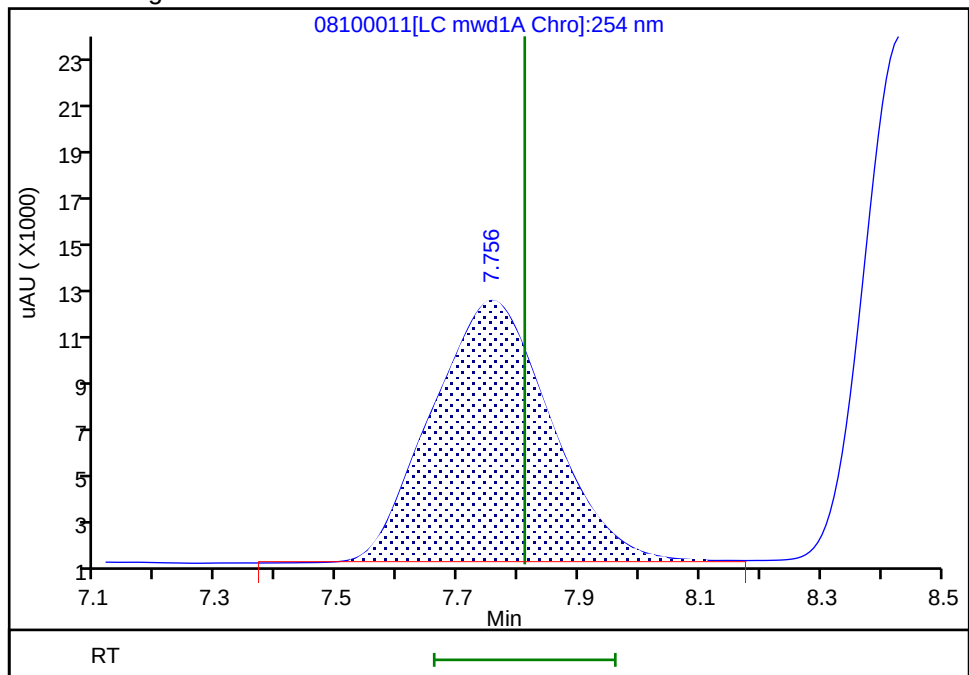
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.76
Area: 146979
Amount: 0.980779
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:18 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

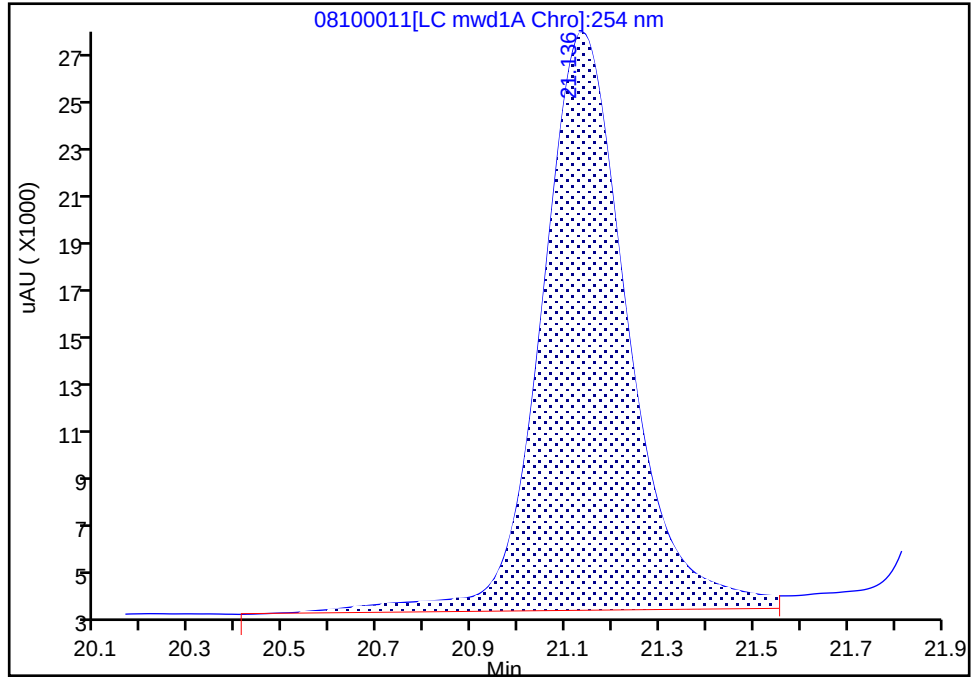
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100011.D
Injection Date: 10-Aug-2024 20:57:00 Instrument ID: CHHPLC_X5
Lims ID: IC INT 8
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

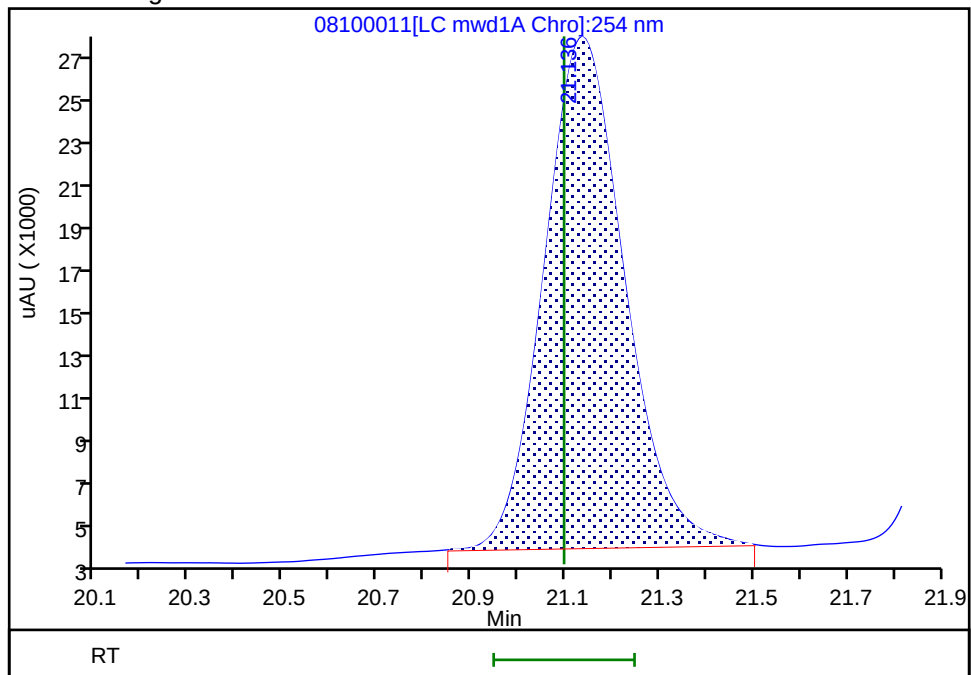
RT: 21.14
Area: 316106
Amount: 0.999552
Amount Units: ug/ml

Processing Integration Results



RT: 21.14
Area: 286831
Amount: 1.012330
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:16:56 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

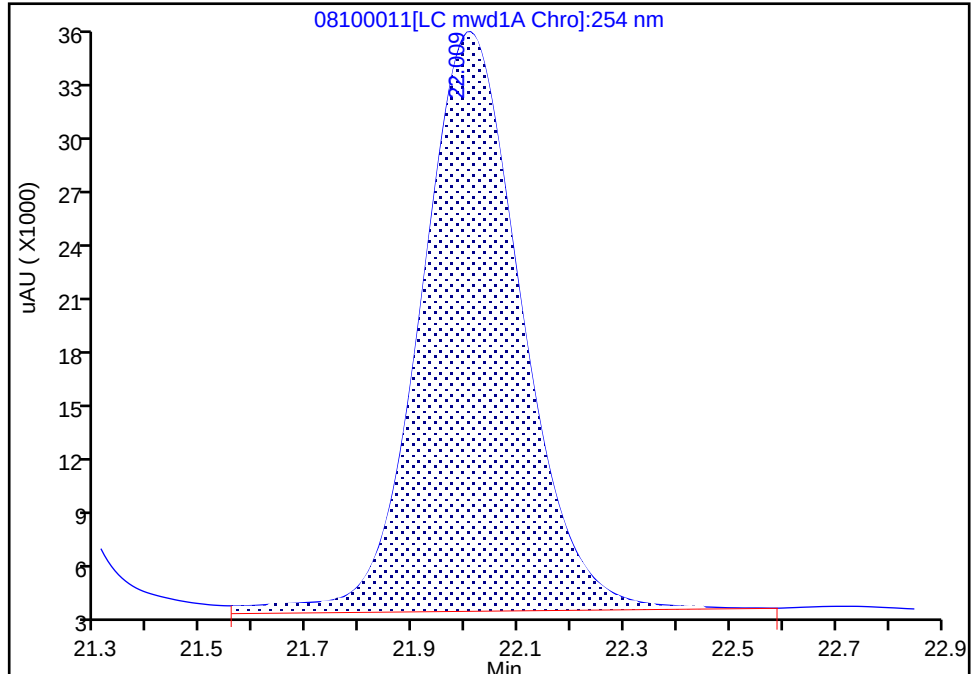
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100011.D
Injection Date: 10-Aug-2024 20:57:00 Instrument ID: CHHPLC_X5
Lims ID: IC INT 8
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

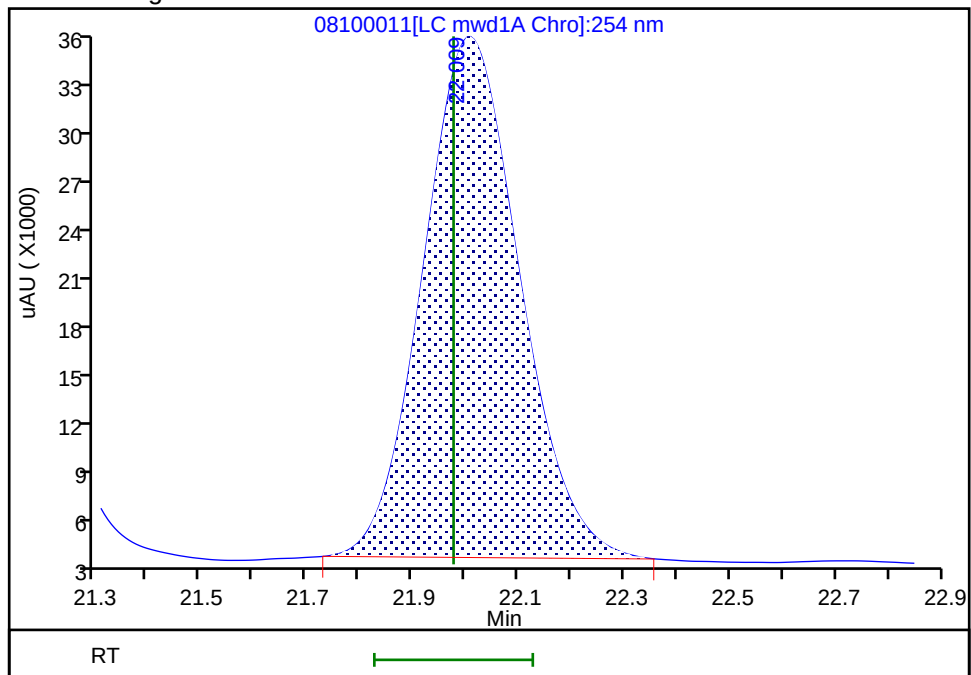
RT: 22.01
Area: 428577
Amount: 0.902485
Amount Units: ug/ml

Processing Integration Results



RT: 22.01
Area: 403353
Amount: 0.969077
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 10-Aug-2024 21:31:57 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:39 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:11:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.325	6.324	0.001	122999	0.7000	0.6820	
7 2,4,6-Trinitrophenol	1	7.785	7.810	-0.025	102542	0.7000	0.6843	a
8 RDX	1	8.445	8.437	0.008	141434	0.7000	0.6418	
9 Nitrobenzene	1	10.999	10.983	0.016	260064	0.7000	0.6899	
\$ 10 1,2-Dinitrobenzene	1	11.819	11.797	0.022	180233	0.7000	0.6866	
11 3,5-Dinitroaniline	1	13.492	13.470	0.022	299884	0.7000	0.6875	
12 1,3-Dinitrobenzene	1	13.845	13.823	0.022	401028	0.7000	0.6852	
13 Nitroglycerin	2	14.512	14.477	0.035	864867	7.00	6.75	
14 o-Nitrotoluene	1	15.025	14.990	0.035	163156	0.7000	0.6917	
16 p-Nitrotoluene	1	15.259	15.223	0.036	146901	0.7000	0.6940	
17 4-Amino-2,6-dinitrotoluene	1	15.592	15.557	0.035	190219	0.7000	0.6828	
18 m-Nitrotoluene	1	16.079	16.043	0.036	177096	0.7000	0.6858	
19 2-Amino-4,6-dinitrotoluene	1	16.339	16.310	0.029	269908	0.7000	0.6931	
20 1,3,5-Trinitrobenzene	1	16.559	16.537	0.022	287991	0.7000	0.6796	
21 2,6-Dinitrotoluene	1	17.685	17.657	0.028	188559	0.7000	0.6624	
22 2,4-Dinitrotoluene	1	18.119	18.090	0.029	380534	0.7000	0.6694	
23 Tetryl	1	21.125	21.097	0.028	199110	0.7000	0.7027	M
24 2,4,6-Trinitrotoluene	1	22.012	21.977	0.035	282341	0.7000	0.6783	M
25 PETN	2	23.505	23.457	0.048	935188	7.00	6.89	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 70.00

Units: uL

Report Date: 13-Aug-2024 15:40:39

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100012.D

Injection Date: 10-Aug-2024 21:31:57

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 7

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

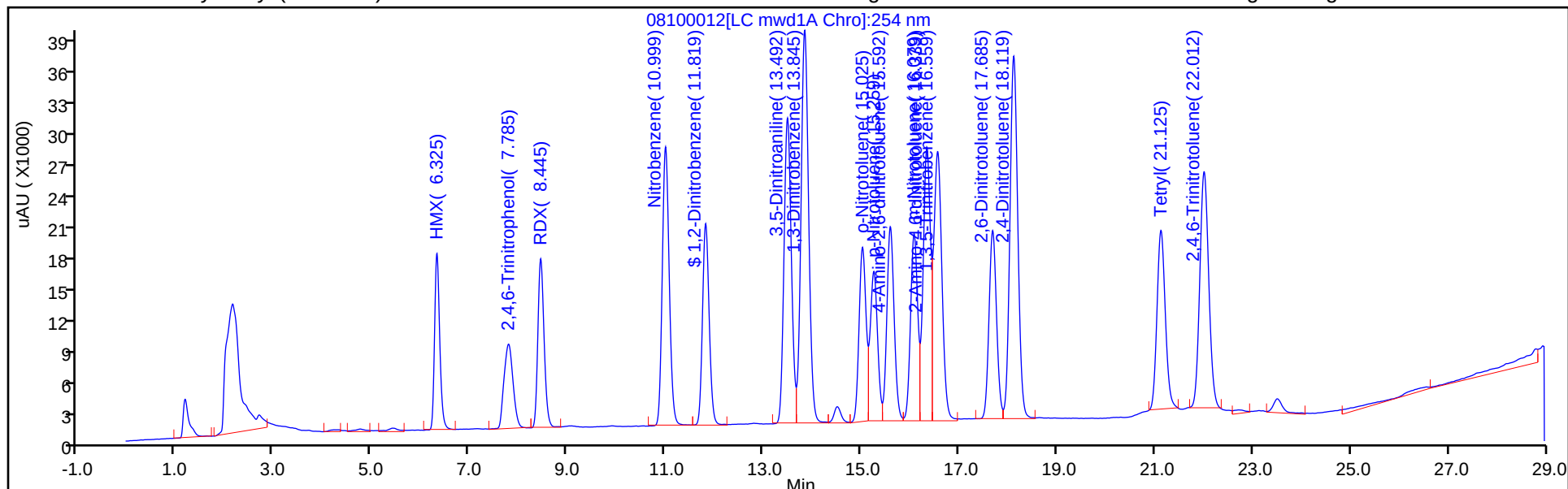
ALS Bottle#: 12

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

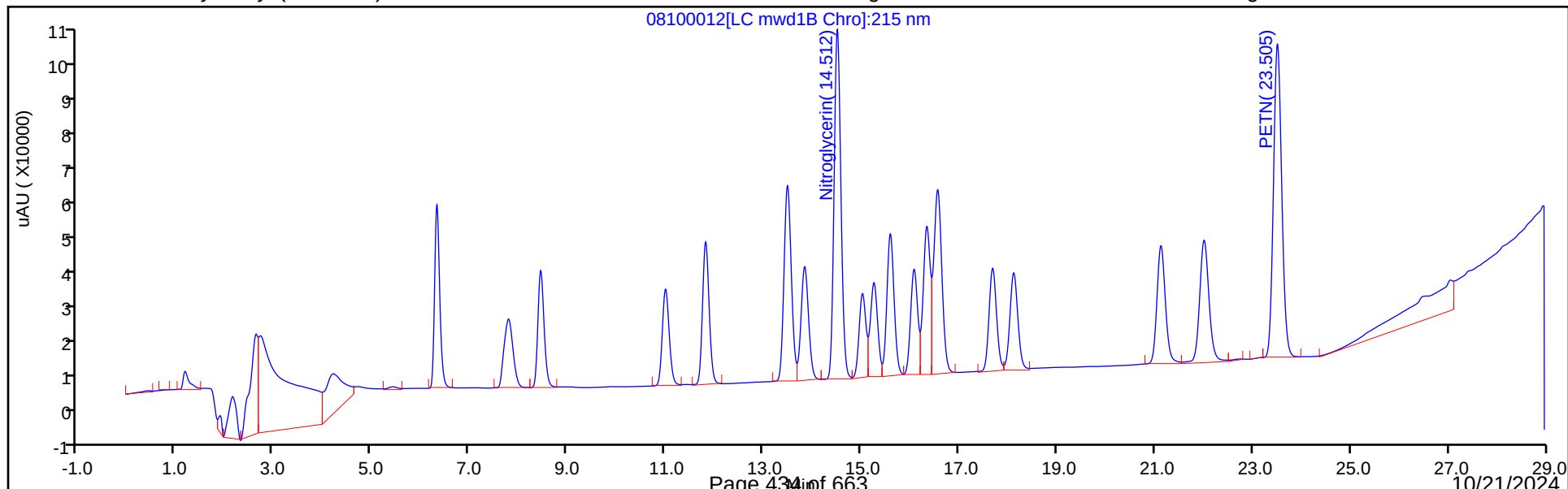
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

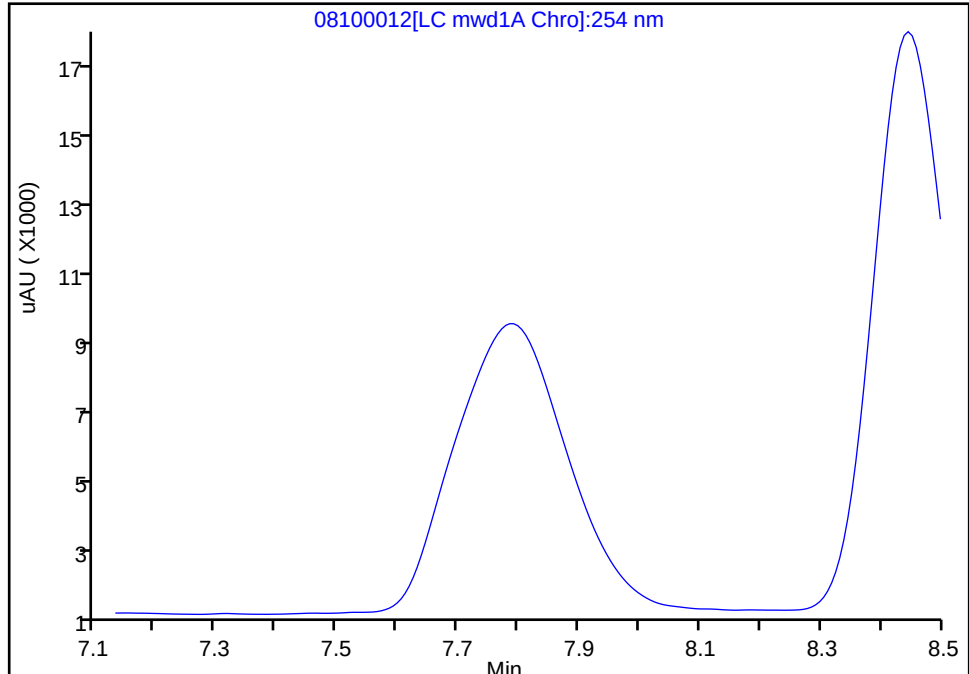
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100012.D
Injection Date: 10-Aug-2024 21:31:57 Instrument ID: CHHPLC_X5
Lims ID: IC INT 7
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

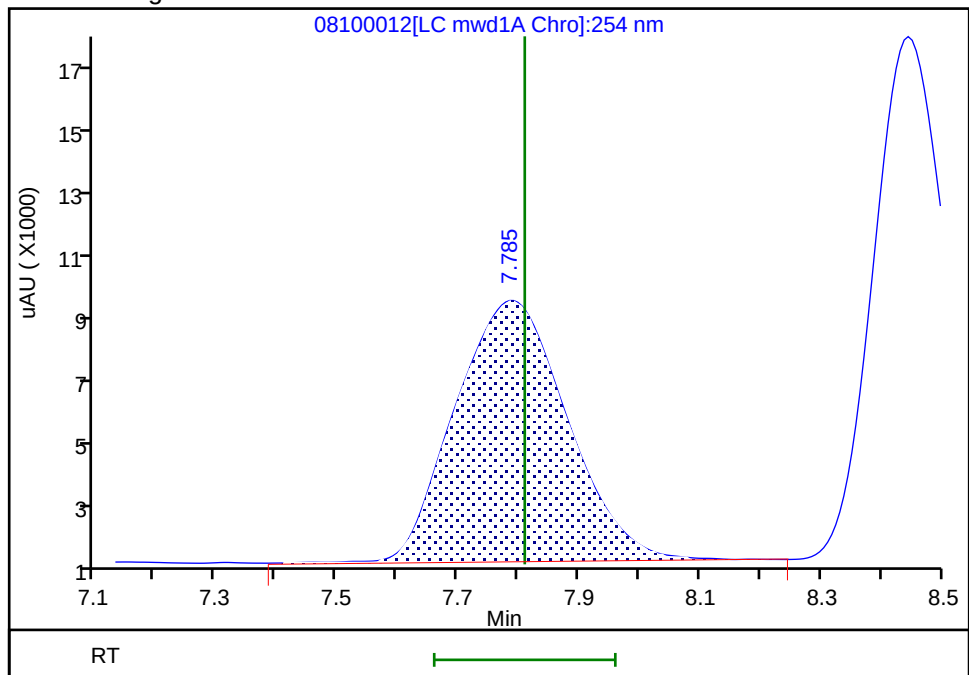
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.79
Area: 102542
Amount: 0.684255
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:46 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

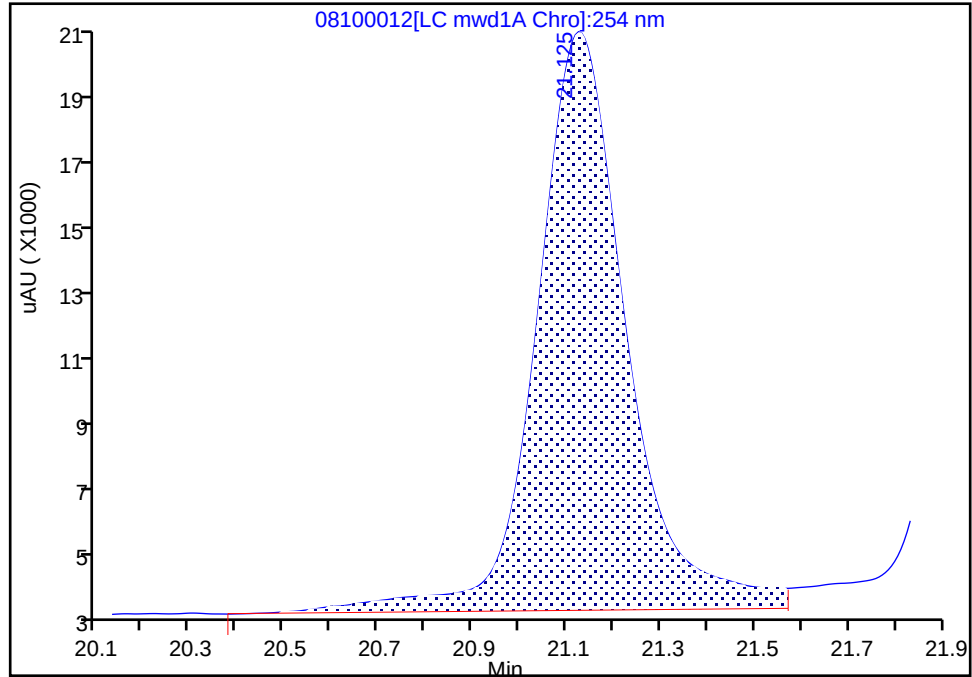
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100012.D
Injection Date: 10-Aug-2024 21:31:57 Instrument ID: CHHPLC_X5
Lims ID: IC INT 7
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

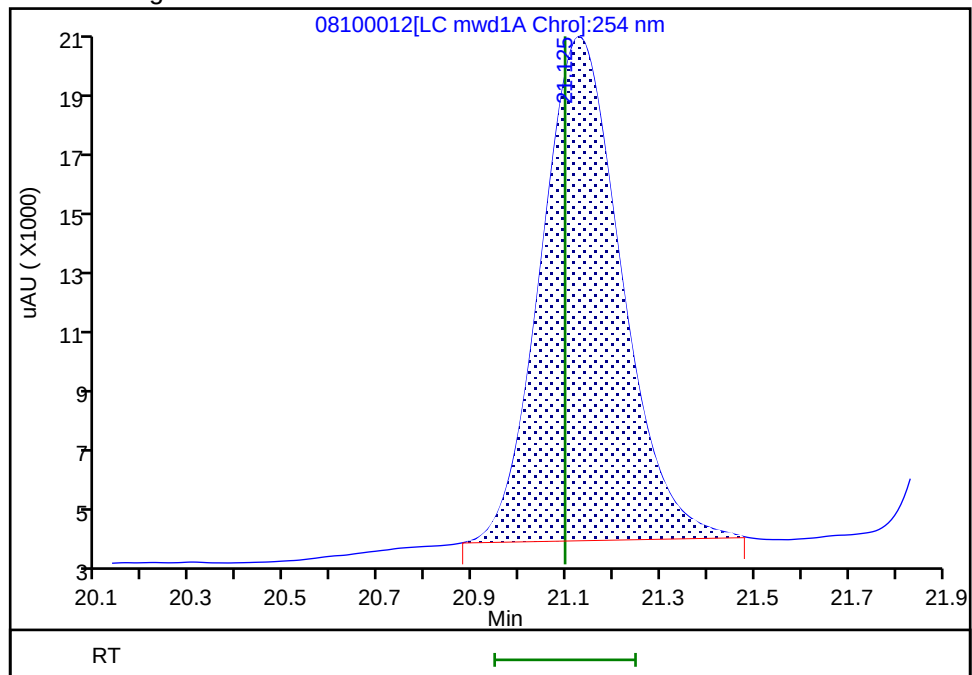
RT: 21.13
Area: 234580
Amount: 0.728938
Amount Units: ug/ml

Processing Integration Results



RT: 21.13
Area: 199110
Amount: 0.702731
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

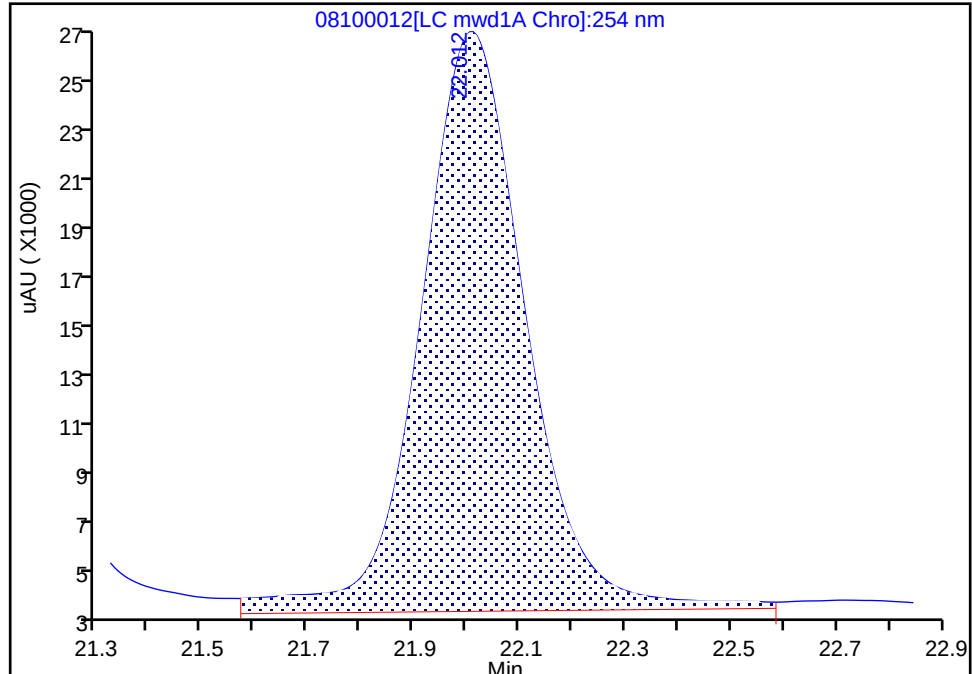
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100012.D
Injection Date: 10-Aug-2024 21:31:57 Instrument ID: CHHPLC_X5
Lims ID: IC INT 7
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

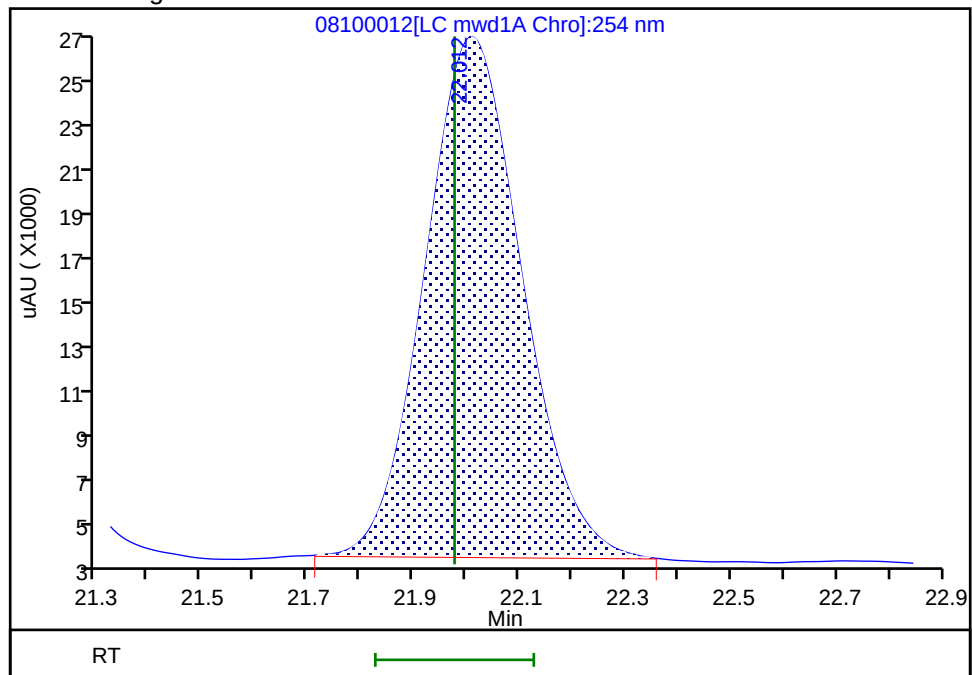
RT: 22.01
Area: 317355
Amount: 0.661382
Amount Units: ug/ml

Processing Integration Results



RT: 22.01
Area: 282341
Amount: 0.678339
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:37 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 10-Aug-2024 22:06:53 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:40 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:12:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.334	6.324	0.010	71733	0.4000	0.3978	
7 2,4,6-Trinitrophenol	1	7.827	7.810	0.017	59211	0.4000	0.3951	a
8 RDX	1	8.467	8.437	0.030	82649	0.4000	0.3751	
9 Nitrobenzene	1	11.020	10.983	0.037	150269	0.4000	0.3987	
\$ 10 1,2-Dinitrobenzene	1	11.840	11.797	0.043	104490	0.4000	0.3981	
11 3,5-Dinitroaniline	1	13.520	13.470	0.050	174587	0.4000	0.4001	
12 1,3-Dinitrobenzene	1	13.874	13.823	0.051	233512	0.4000	0.3990	
13 Nitroglycerin	2	14.540	14.477	0.063	510574	4.00	3.98	
14 o-Nitrotoluene	1	15.054	14.990	0.064	94438	0.4000	0.4004	
16 p-Nitrotoluene	1	15.287	15.223	0.064	85068	0.4000	0.4019	
17 4-Amino-2,6-dinitrotoluene	1	15.627	15.557	0.070	111348	0.4000	0.3997	
18 m-Nitrotoluene	1	16.114	16.043	0.071	103187	0.4000	0.3996	
19 2-Amino-4,6-dinitrotoluene	1	16.374	16.310	0.064	157134	0.4000	0.4035	
20 1,3,5-Trinitrobenzene	1	16.600	16.537	0.063	168114	0.4000	0.3967	
21 2,6-Dinitrotoluene	1	17.727	17.657	0.070	110288	0.4000	0.3874	
22 2,4-Dinitrotoluene	1	18.160	18.090	0.070	222196	0.4000	0.3908	
23 Tetryl	1	21.174	21.097	0.077	116189	0.4000	0.4101	M
24 2,4,6-Trinitrotoluene	1	22.047	21.977	0.070	164300	0.4000	0.3947	M
25 PETN	2	23.534	23.457	0.077	543090	4.00	4.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 40.00

Units: uL

Report Date: 13-Aug-2024 15:40:40

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100013.D

Injection Date: 10-Aug-2024 22:06:53

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 6

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

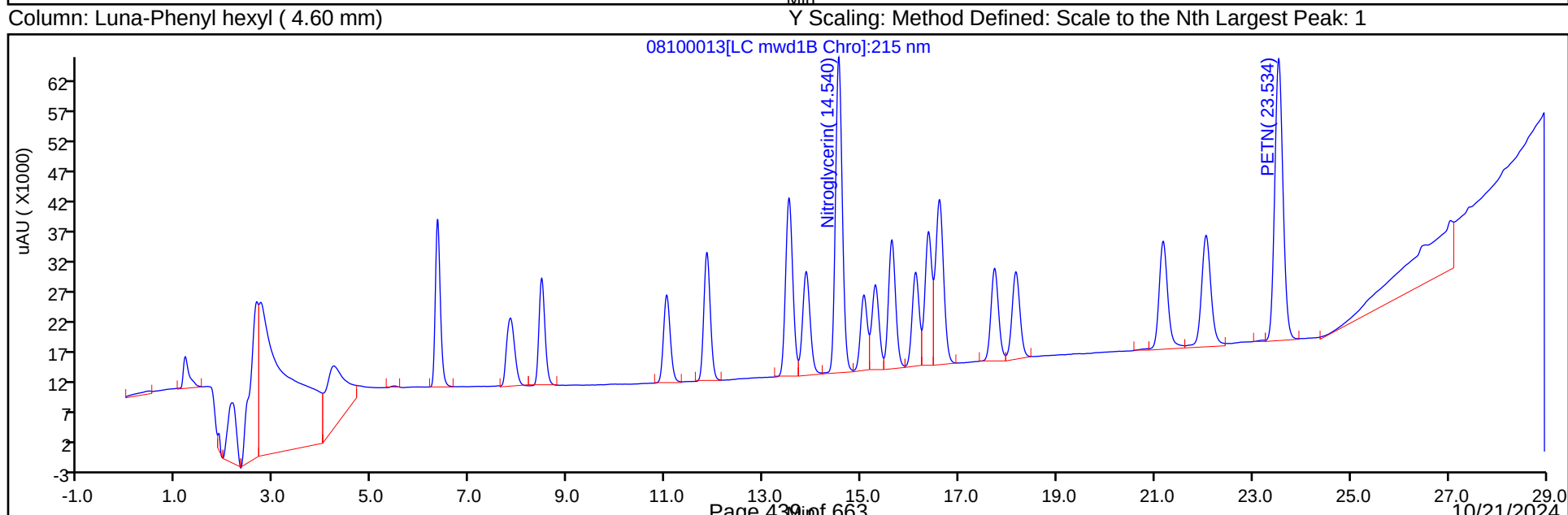
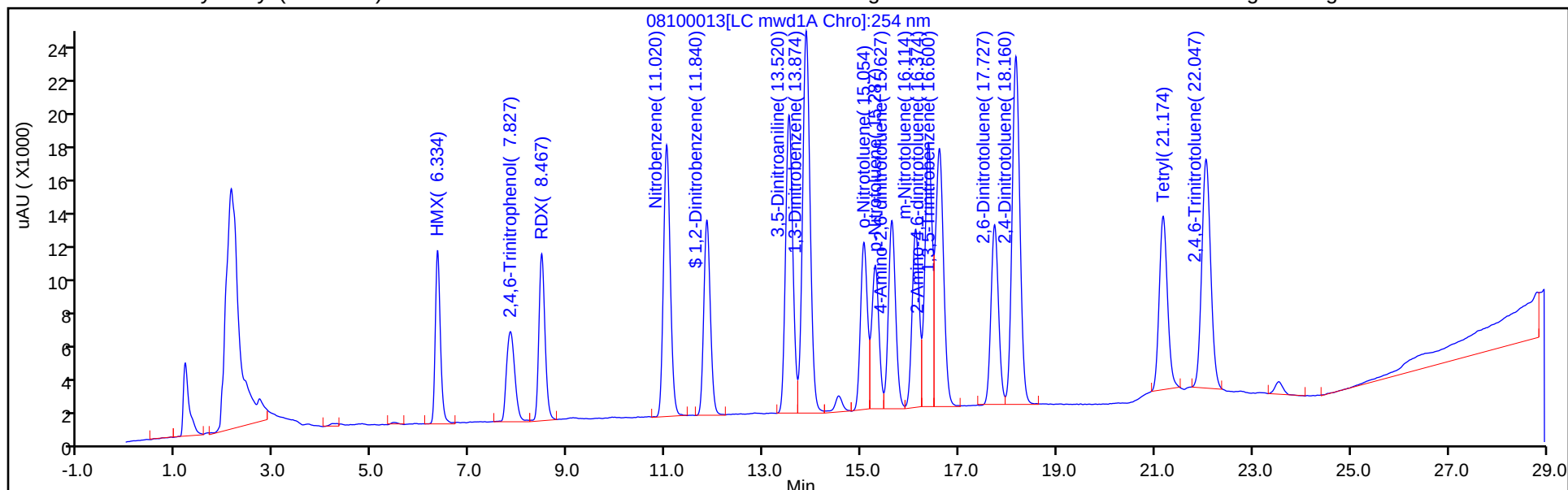
ALS Bottle#: 13

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver

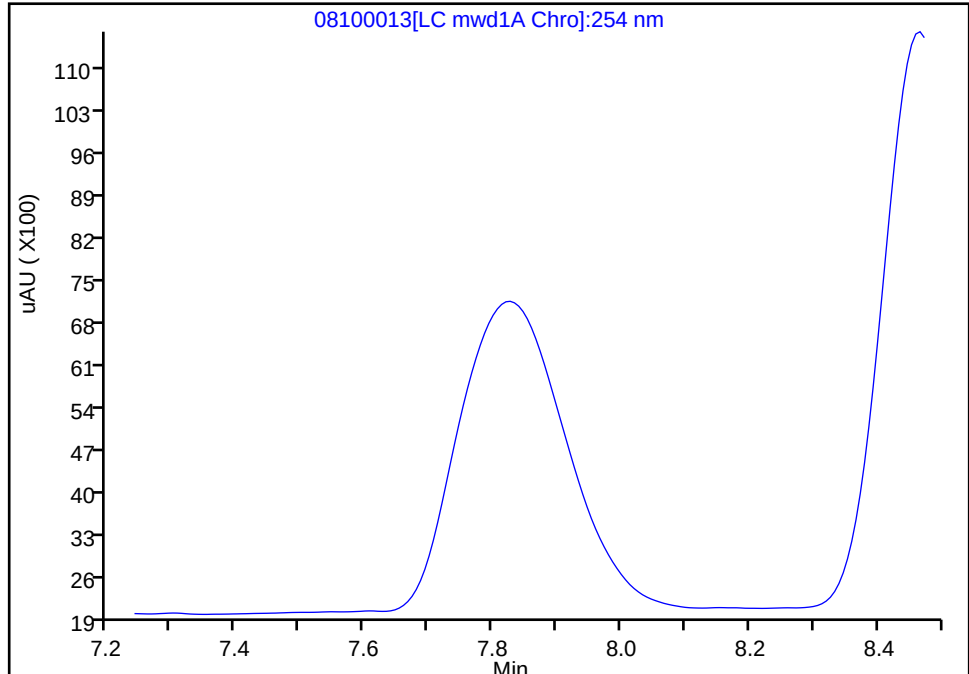
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100013.D
Injection Date: 10-Aug-2024 22:06:53 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

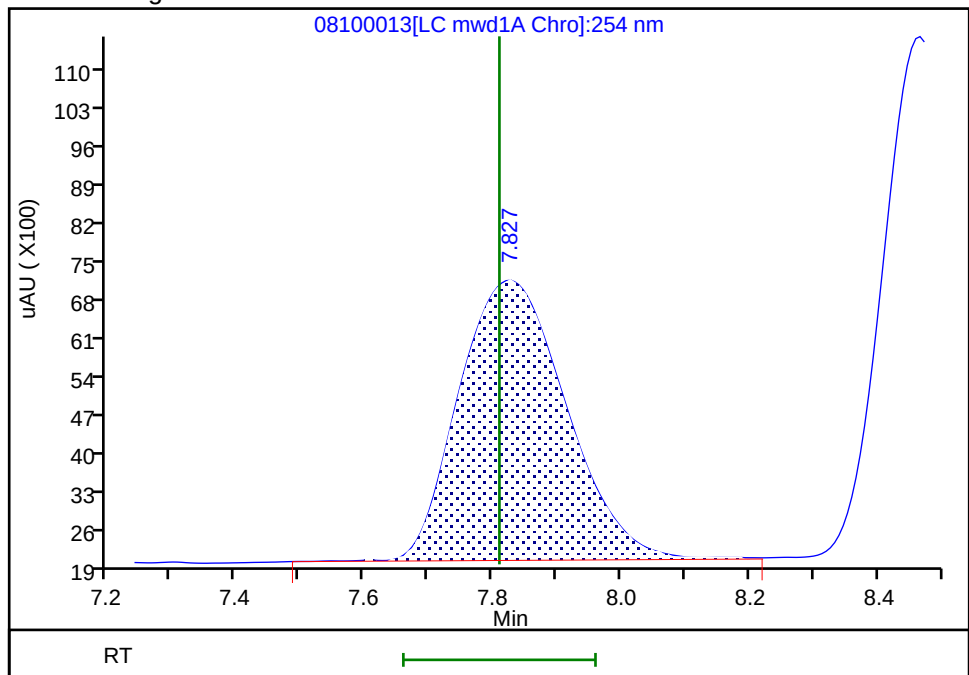
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.83
Area: 59211
Amount: 0.395110
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:11:52 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

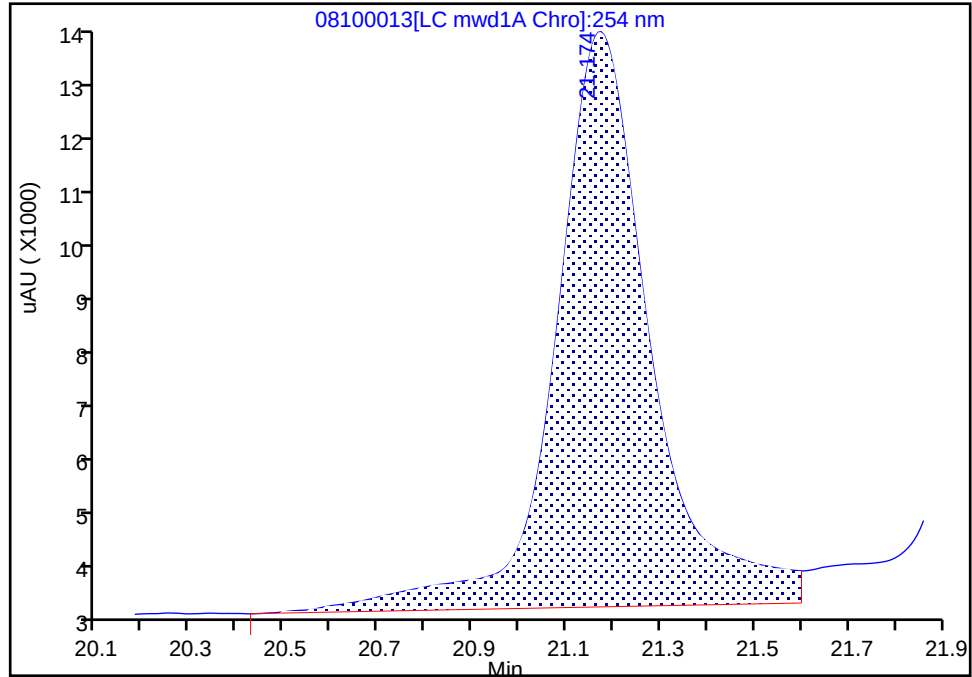
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100013.D
Injection Date: 10-Aug-2024 22:06:53 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

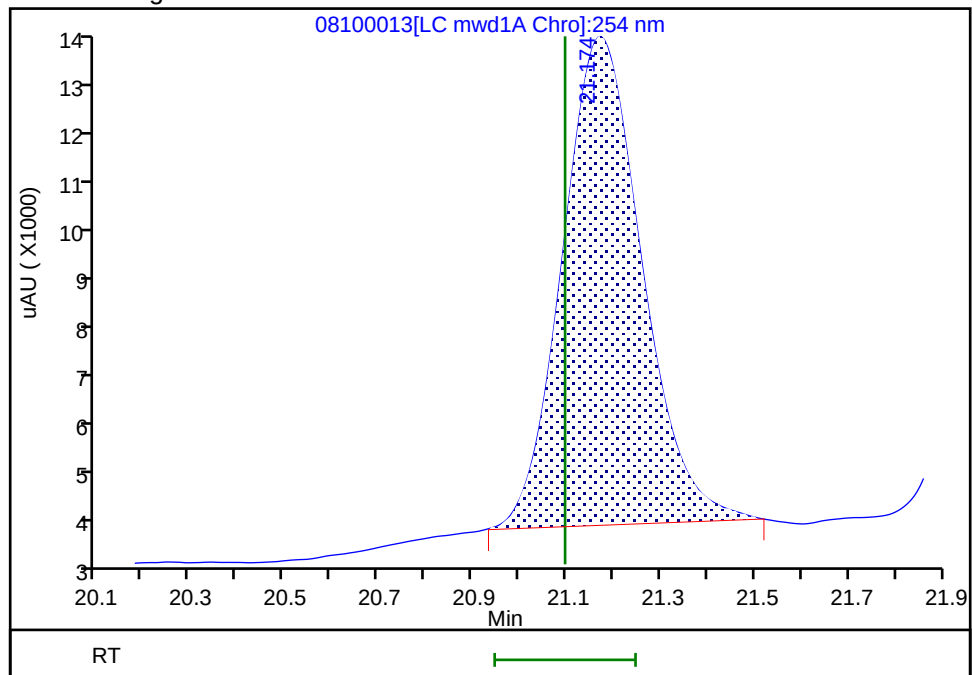
RT: 21.17
Area: 149013
Amount: 0.434317
Amount Units: ug/ml

Processing Integration Results



RT: 21.17
Area: 116189
Amount: 0.410073
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

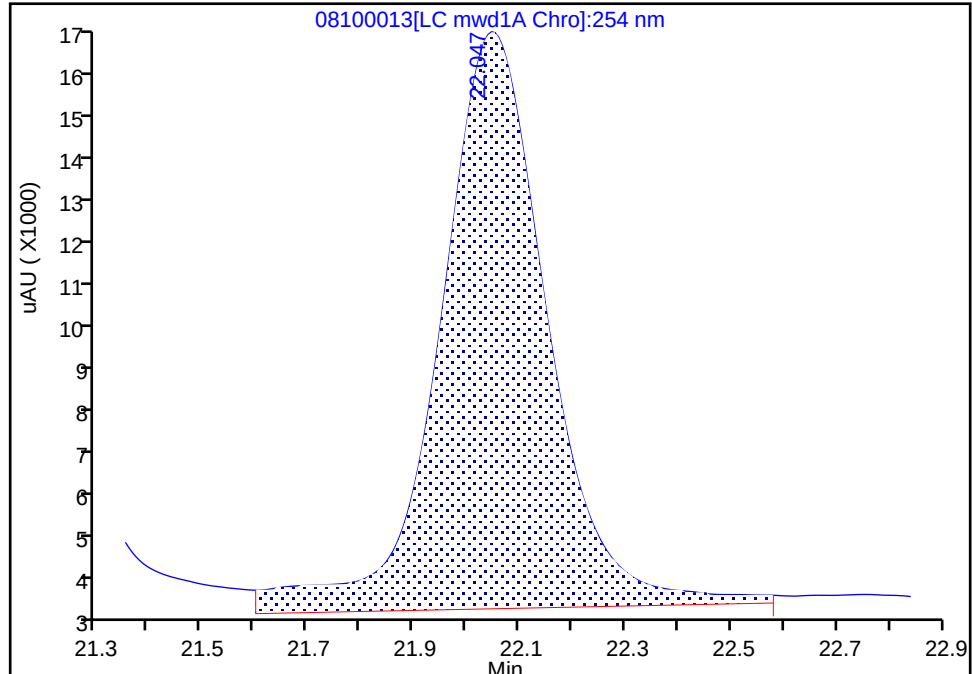
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100013.D
Injection Date: 10-Aug-2024 22:06:53 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

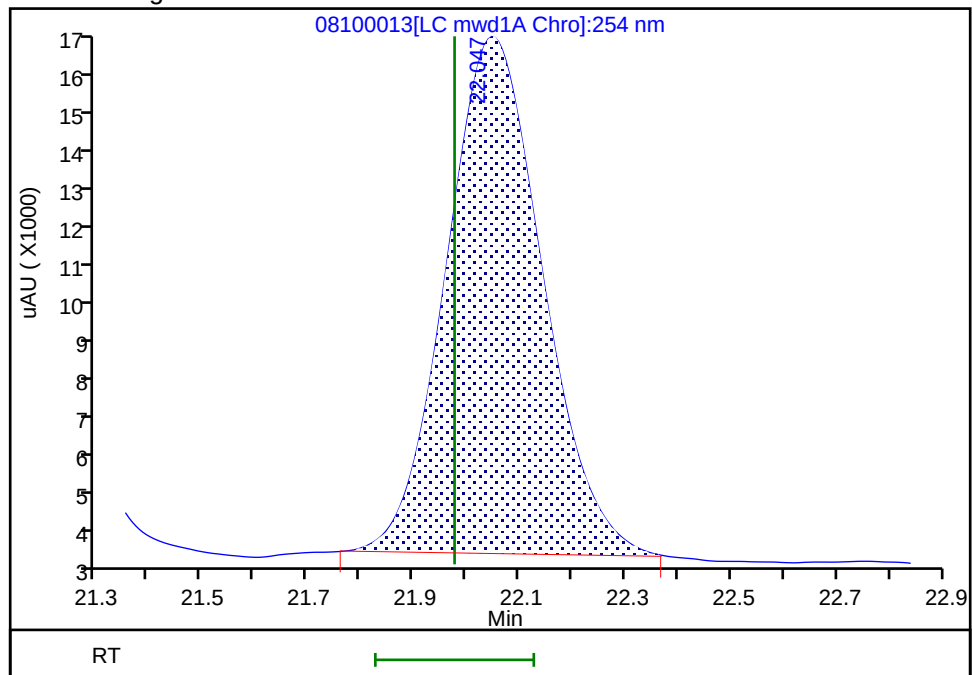
RT: 22.05
Area: 193878
Amount: 0.391557
Amount Units: ug/ml

Processing Integration Results



RT: 22.05
Area: 164300
Amount: 0.394739
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 10-Aug-2024 22:41:52 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:41 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:12:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.324	6.324	0.000	46973	0.2500	0.2605	
7 2,4,6-Trinitrophenol	1	7.810	7.810	0.000	38121	0.2500	0.2544	a
8 RDX	1	8.437	8.437	0.000	53547	0.2500	0.2430	
9 Nitrobenzene	1	10.983	10.983	0.000	96842	0.2500	0.2569	
\$ 10 1,2-Dinitrobenzene	1	11.797	11.797	0.000	68837	0.2500	0.2622	
11 3,5-Dinitroaniline	1	13.470	13.470	0.000	113048	0.2500	0.2589	
12 1,3-Dinitrobenzene	1	13.823	13.823	0.000	150469	0.2500	0.2571	
13 Nitroglycerin	2	14.477	14.477	0.000	331233	2.50	2.58	
14 o-Nitrotoluene	1	14.990	14.990	0.000	59944	0.2500	0.2541	
16 p-Nitrotoluene	1	15.223	15.223	0.000	54841	0.2500	0.2591	
17 4-Amino-2,6-dinitrotoluene	1	15.557	15.557	0.000	71808	0.2500	0.2578	
18 m-Nitrotoluene	1	16.043	16.043	0.000	66388	0.2500	0.2571	
19 2-Amino-4,6-dinitrotoluene	1	16.310	16.310	0.000	101067	0.2500	0.2595	
20 1,3,5-Trinitrobenzene	1	16.537	16.537	0.000	107982	0.2500	0.2548	
21 2,6-Dinitrotoluene	1	17.657	17.657	0.000	71960	0.2500	0.2528	
22 2,4-Dinitrotoluene	1	18.090	18.090	0.000	143677	0.2500	0.2527	
23 Tetryl	1	21.097	21.097	0.000	75422	0.2500	0.2662	M
24 2,4,6-Trinitrotoluene	1	21.977	21.977	0.000	105934	0.2500	0.2545	M
25 PETN	2	23.457	23.457	0.000	352162	2.50	2.59	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 25.00

Units: uL

Report Date: 13-Aug-2024 15:40:41

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100014.D

Injection Date: 10-Aug-2024 22:41:52

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 5

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

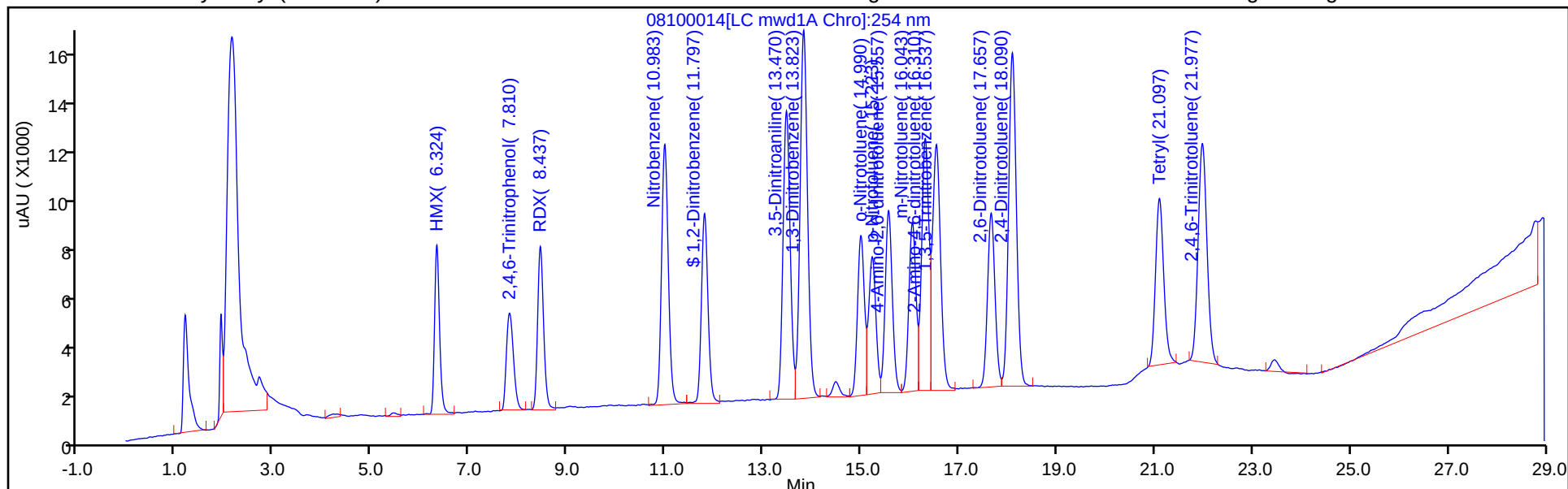
ALS Bottle#: 14

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

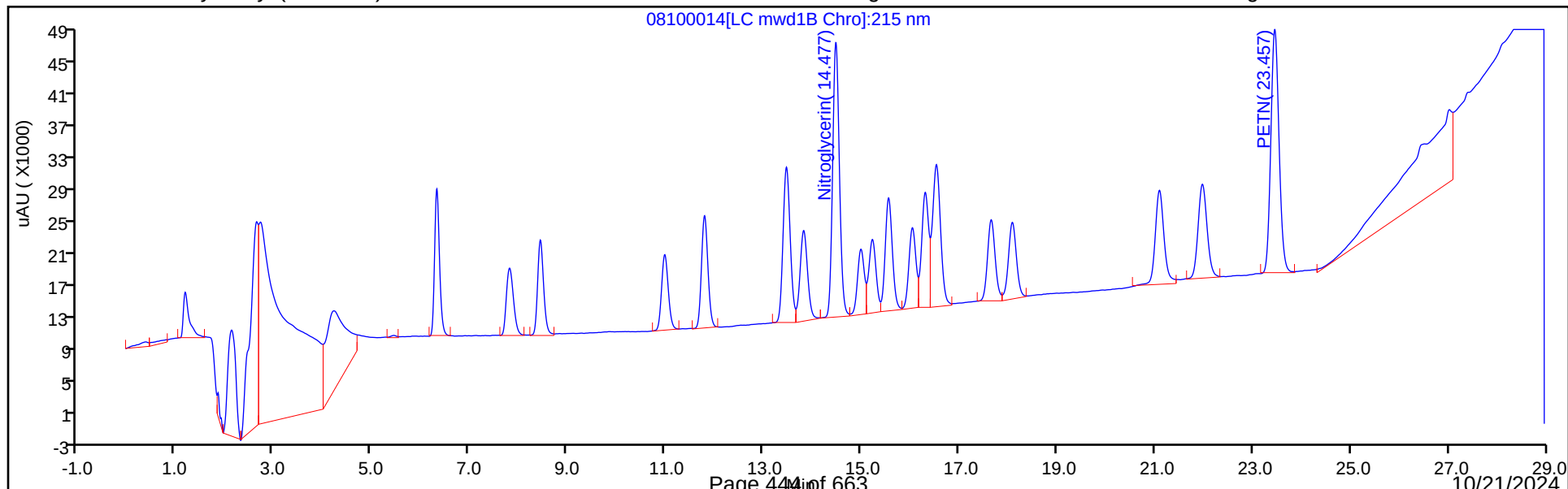
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

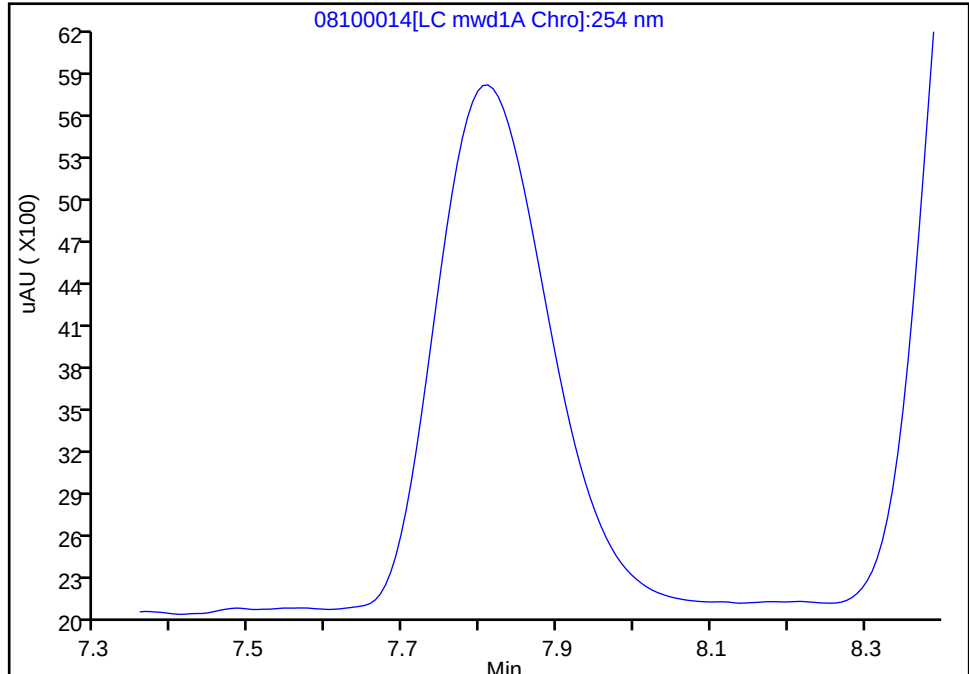
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100014.D
Injection Date: 10-Aug-2024 22:41:52 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

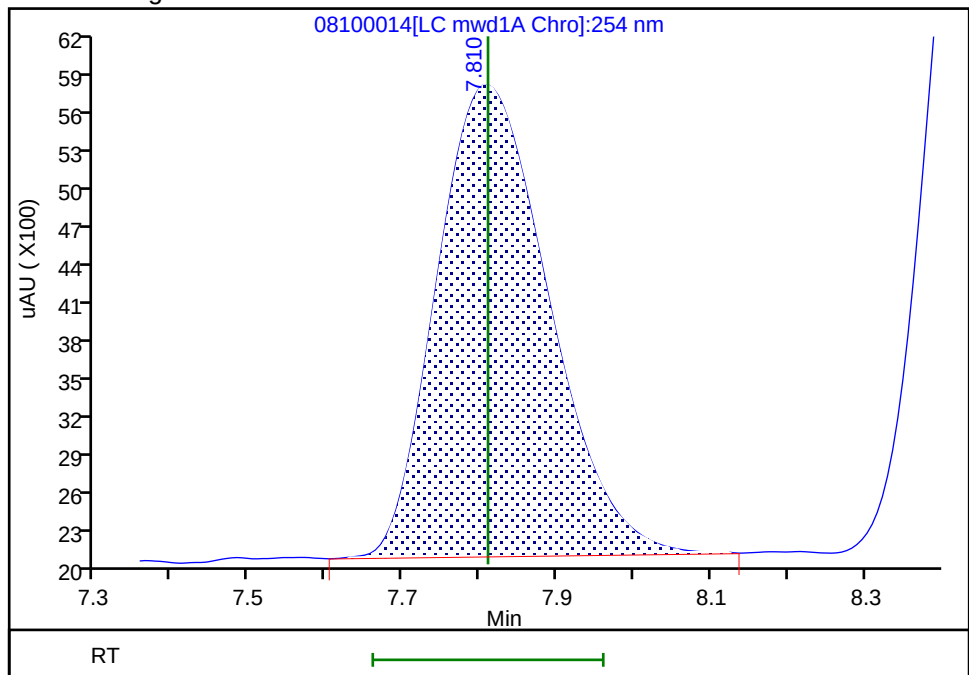
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.81
Area: 38121
Amount: 0.254378
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:23 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

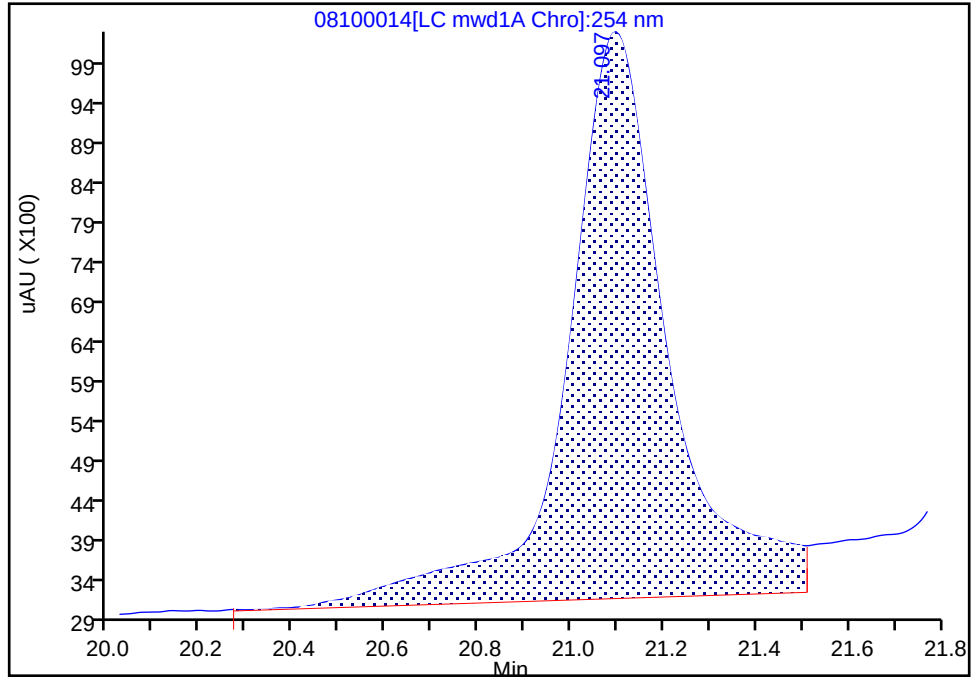
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100014.D
Injection Date: 10-Aug-2024 22:41:52 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

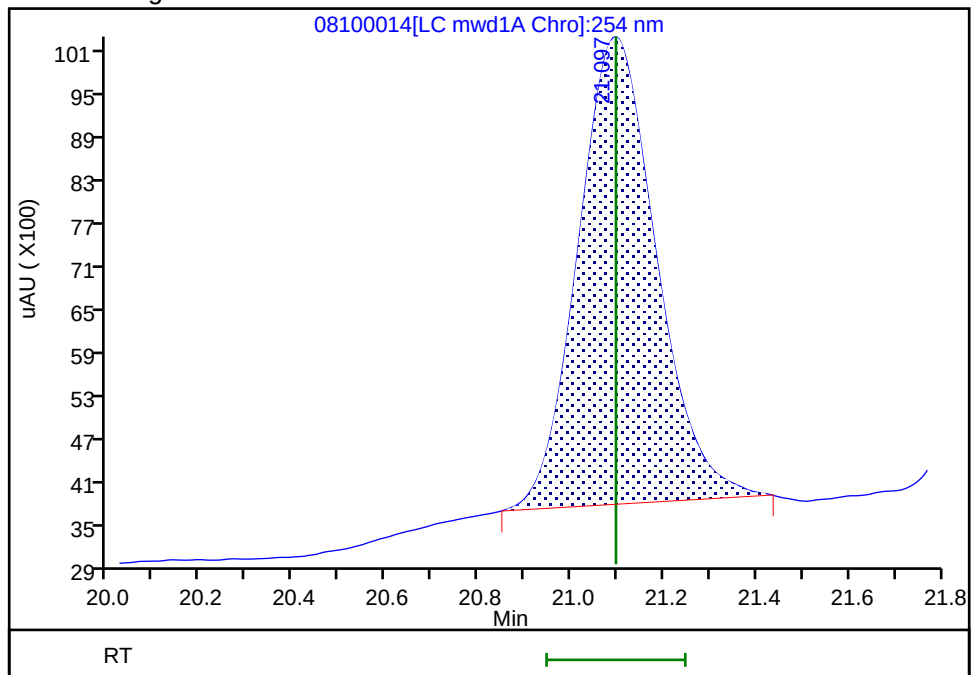
RT: 21.10
Area: 107445
Amount: 0.289154
Amount Units: ug/ml

Processing Integration Results



RT: 21.10
Area: 75422
Amount: 0.266191
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:15 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

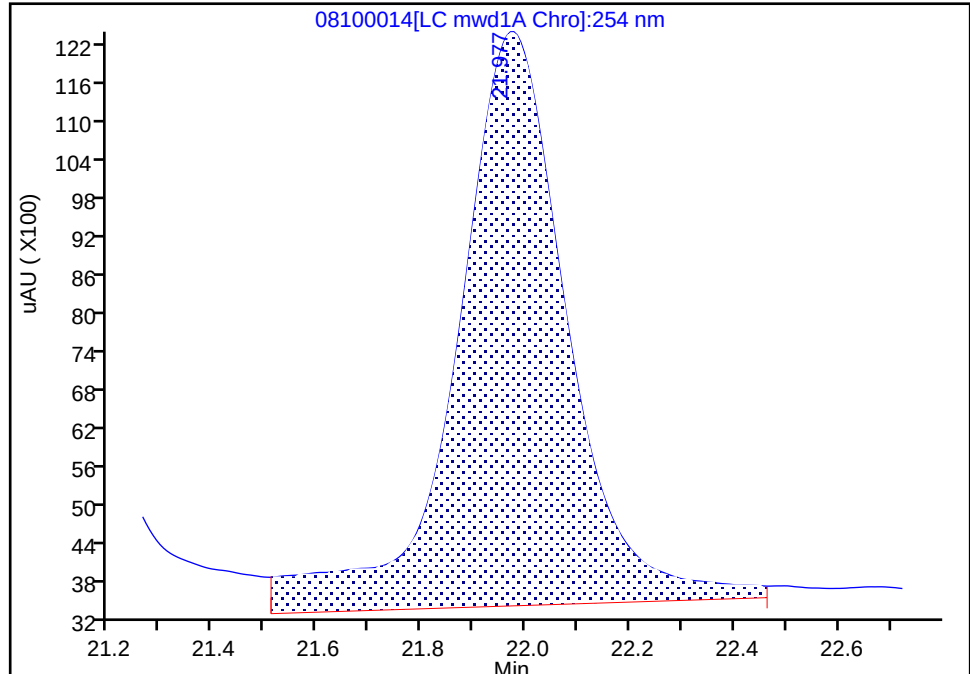
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100014.D
Injection Date: 10-Aug-2024 22:41:52 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

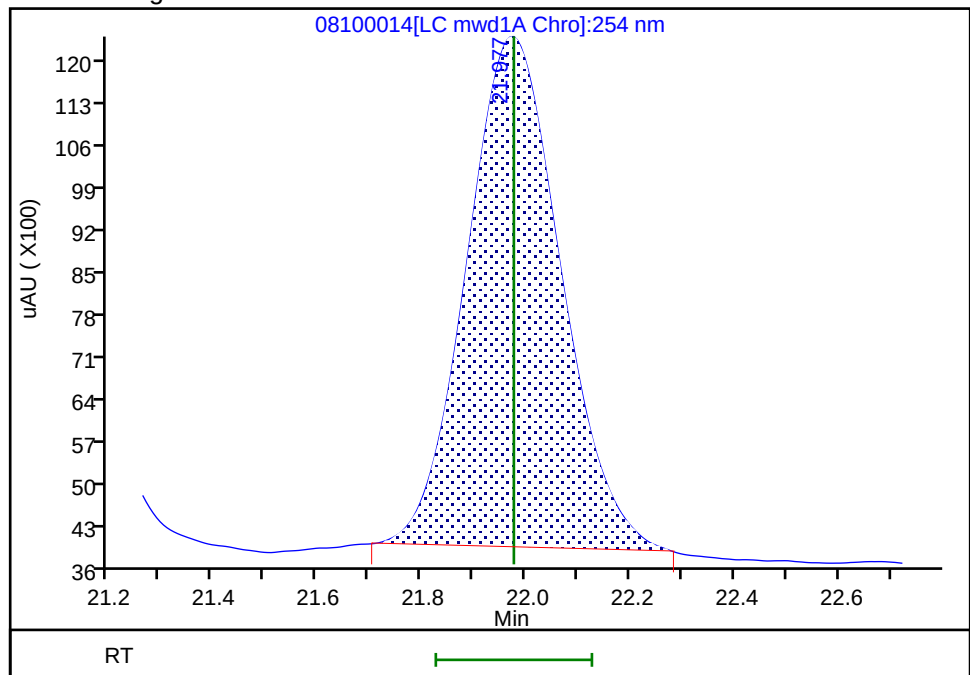
RT: 21.98
Area: 134446
Amount: 0.262596
Amount Units: ug/ml

Processing Integration Results



RT: 21.98
Area: 105934
Amount: 0.254512
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:13 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 10-Aug-2024 23:16:47 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:41 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:12:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.327	6.324	0.003	17888	0.1000	0.0992	
7 2,4,6-Trinitrophenol	1	7.861	7.810	0.051	15103	0.1000	0.1008	a
8 RDX	1	8.461	8.437	0.024	21335	0.1000	0.0968	
9 Nitrobenzene	1	11.014	10.983	0.031	37856	0.1000	0.1004	
\$ 10 1,2-Dinitrobenzene	1	11.834	11.797	0.037	26738	0.1000	0.1019	
11 3,5-Dinitroaniline	1	13.514	13.470	0.044	43566	0.1000	0.0995	
12 1,3-Dinitrobenzene	1	13.861	13.823	0.038	57831	0.1000	0.0988	
13 Nitroglycerin	2	14.527	14.477	0.050	127672	1.00	1.00	
14 o-Nitrotoluene	1	15.041	14.990	0.051	23499	0.1000	0.0996	
16 p-Nitrotoluene	1	15.274	15.223	0.051	20994	0.1000	0.0992	
17 4-Amino-2,6-dinitrotoluene	1	15.614	15.557	0.057	27825	0.1000	0.0999	
18 m-Nitrotoluene	1	16.094	16.043	0.051	25999	0.1000	0.1007	
19 2-Amino-4,6-dinitrotoluene	1	16.361	16.310	0.051	38652	0.1000	0.0993	
20 1,3,5-Trinitrobenzene	1	16.574	16.537	0.037	42742	0.1000	0.1009	
21 2,6-Dinitrotoluene	1	17.707	17.657	0.050	27962	0.1000	0.0982	
22 2,4-Dinitrotoluene	1	18.141	18.090	0.051	55487	0.1000	0.0976	
23 Tetryl	1	21.154	21.097	0.057	29297	0.1000	0.1034	M
24 2,4,6-Trinitrotoluene	1	22.027	21.977	0.050	42305	0.1000	0.1016	M
25 PETN	2	23.521	23.457	0.064	135423	1.00	1.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 10.00

Units: uL

Report Date: 13-Aug-2024 15:40:42

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100015.D

Injection Date: 10-Aug-2024 23:16:47

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 4

Worklist Smp#: 15

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

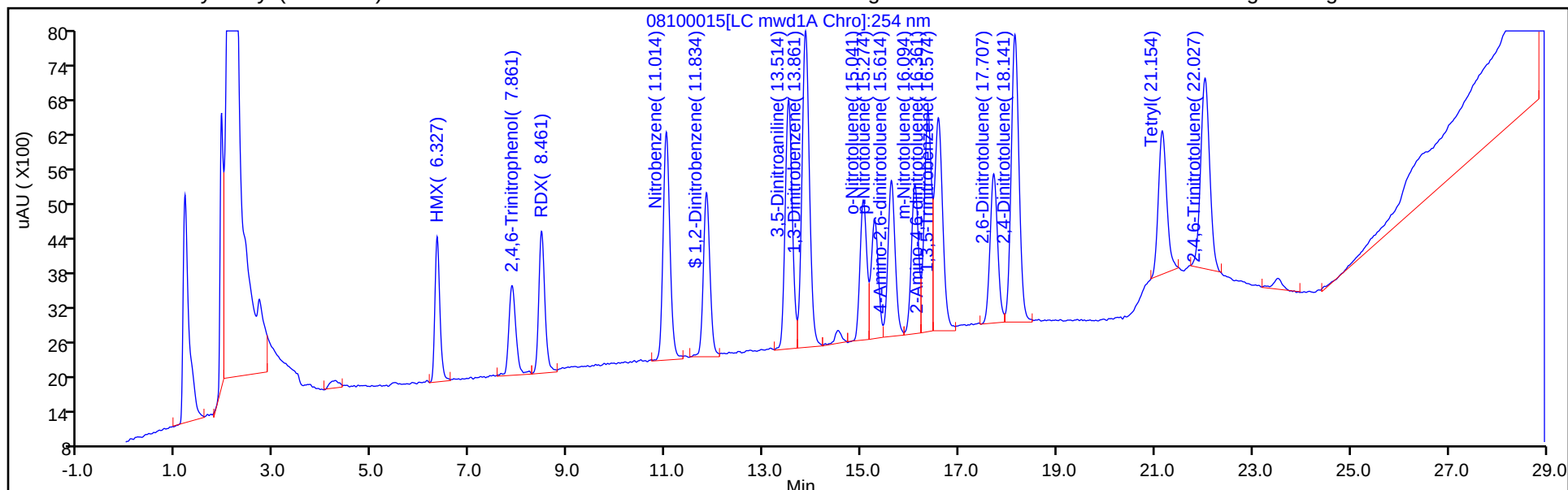
ALS Bottle#: 15

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

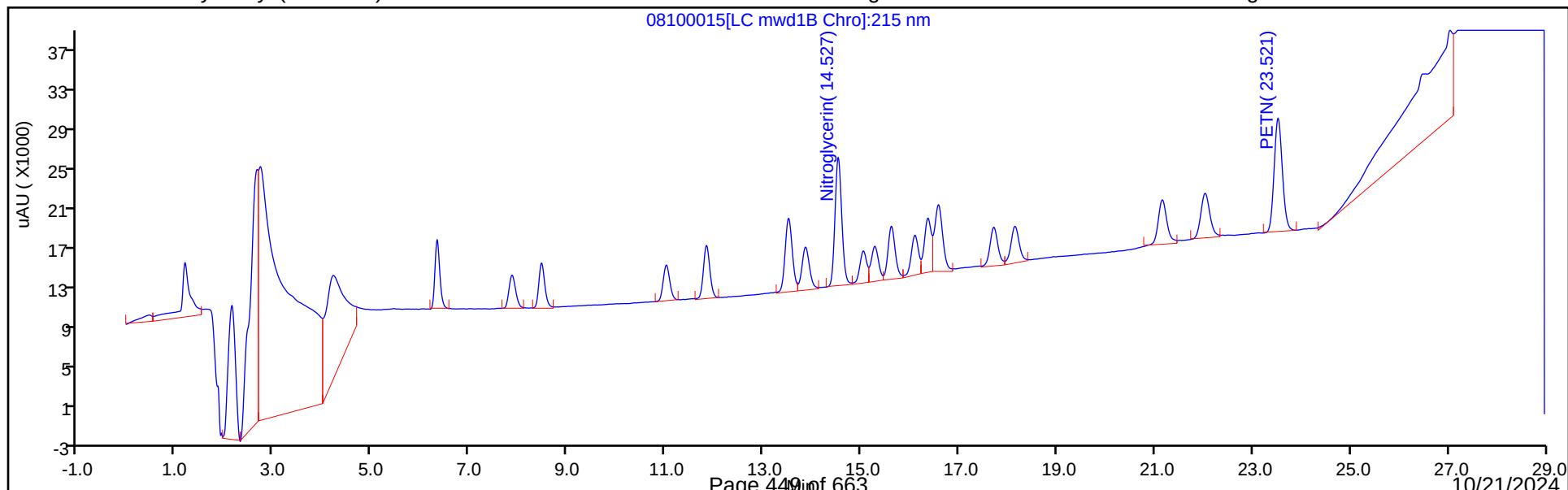
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

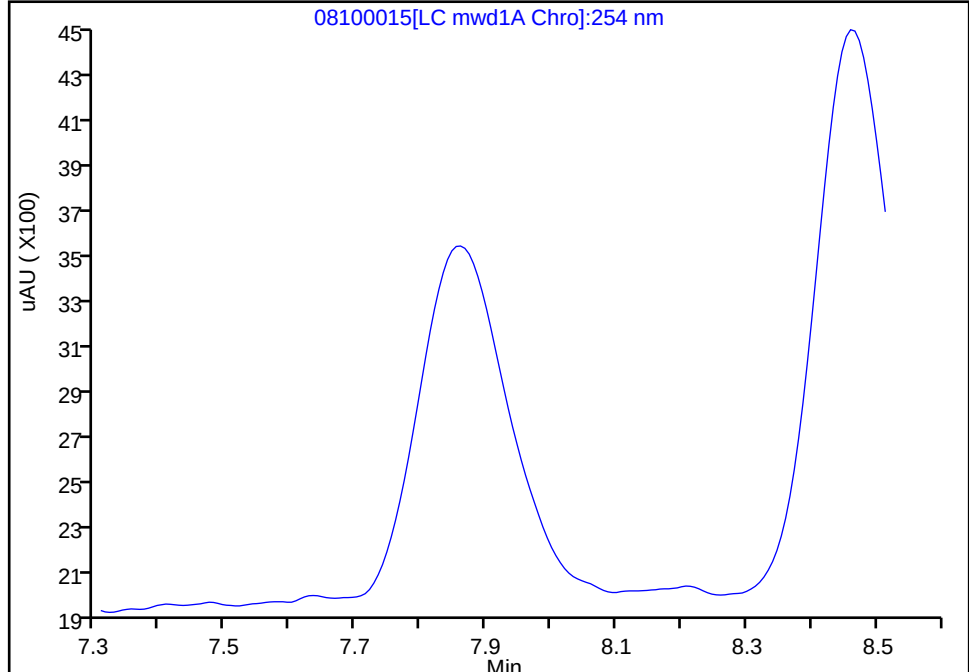
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100015.D
Injection Date: 10-Aug-2024 23:16:47 Instrument ID: CHHPLC_X5
Lims ID: IC INT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

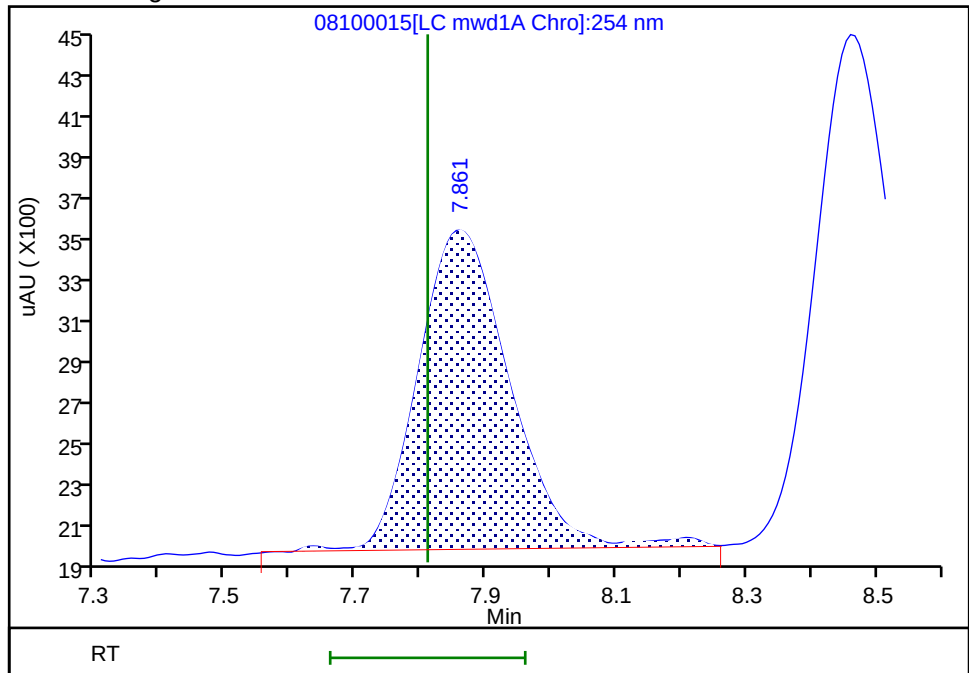
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.86
Area: 15103
Amount: 0.100781
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:28 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

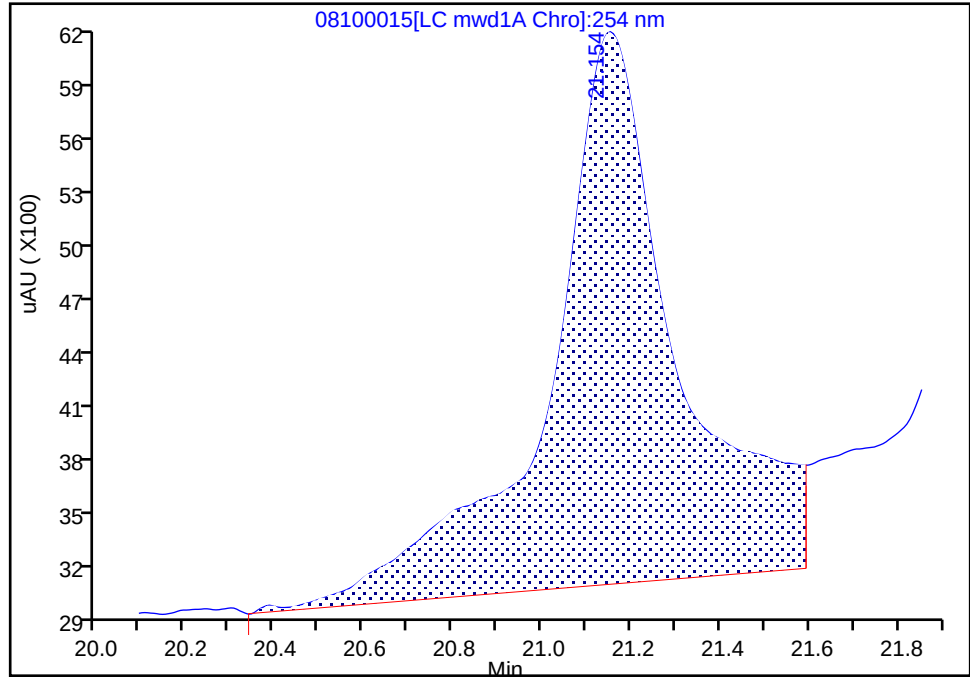
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100015.D
Injection Date: 10-Aug-2024 23:16:47 Instrument ID: CHHPLC_X5
Lims ID: IC INT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

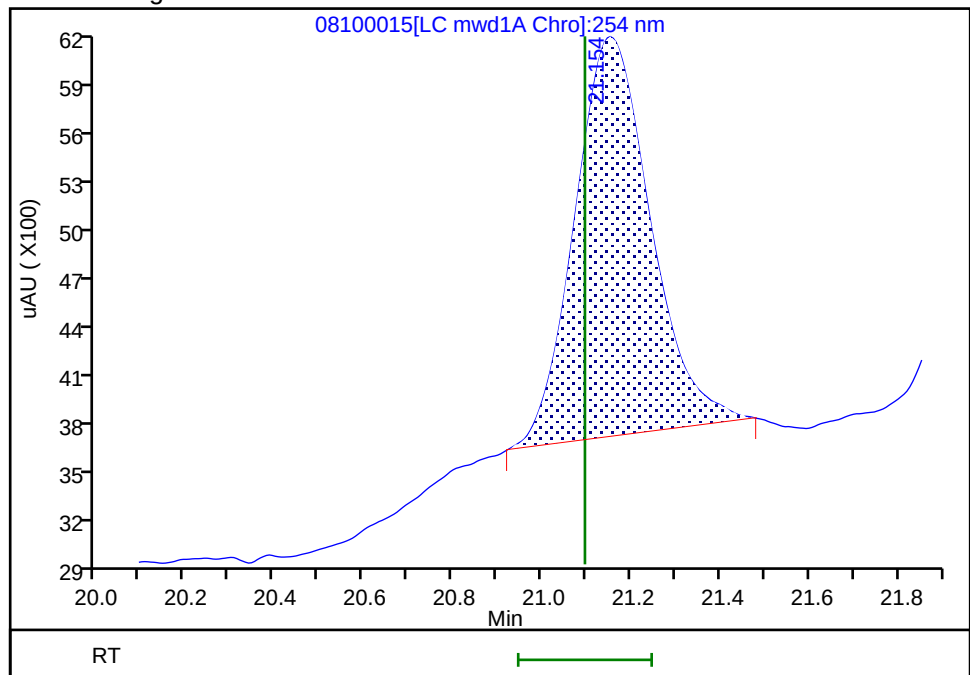
RT: 21.15
Area: 62706
Amount: 0.151929
Amount Units: ug/ml

Processing Integration Results



RT: 21.15
Area: 29297
Amount: 0.103400
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:36 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

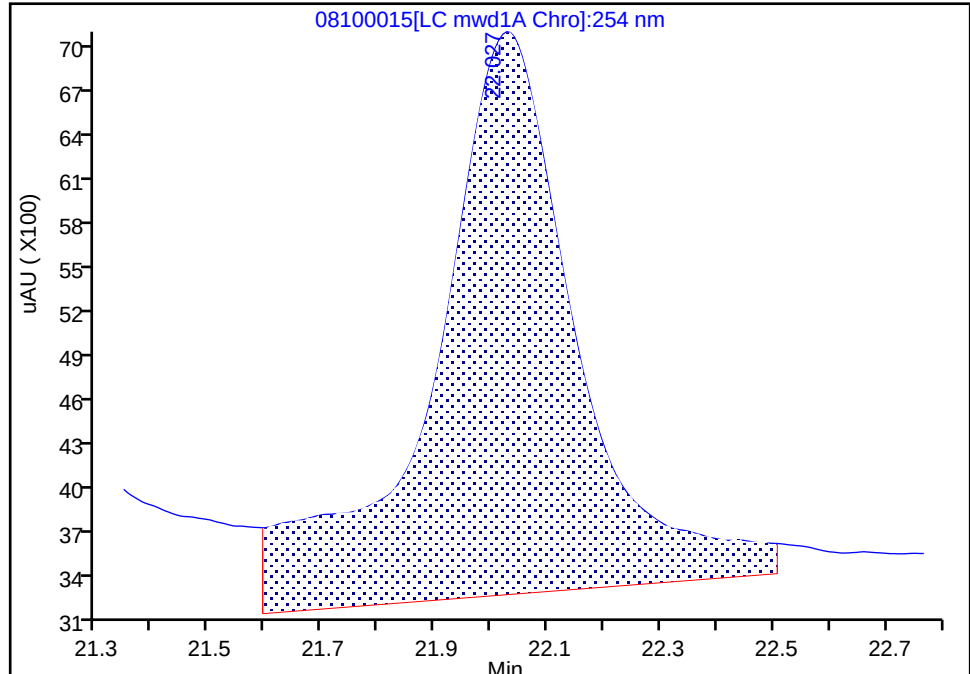
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100015.D
Injection Date: 10-Aug-2024 23:16:47 Instrument ID: CHHPLC_X5
Lims ID: IC INT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

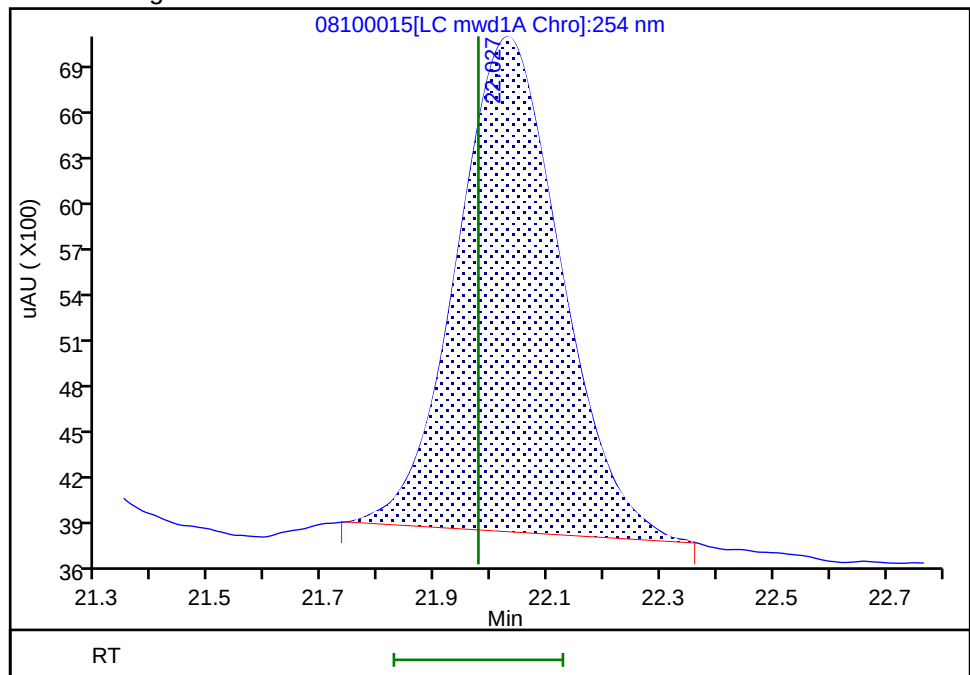
RT: 22.03
Area: 67590
Amount: 0.110097
Amount Units: ug/ml

Processing Integration Results



RT: 22.03
Area: 42305
Amount: 0.101640
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:38 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-Aug-2024 23:51:43 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:42 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:12:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.325	6.324	0.001	9102	0.0500	0.0505	
7 2,4,6-Trinitrophenol	1	7.865	7.810	0.055	7567	0.0500	0.0505	a
8 RDX	1	8.459	8.437	0.022	10927	0.0500	0.0496	
9 Nitrobenzene	1	11.012	10.983	0.029	19091	0.0500	0.0506	
\$ 10 1,2-Dinitrobenzene	1	11.832	11.797	0.035	13605	0.0500	0.0518	
11 3,5-Dinitroaniline	1	13.512	13.470	0.042	21976	0.0500	0.0499	
12 1,3-Dinitrobenzene	1	13.858	13.823	0.035	29180	0.0500	0.0499	
13 Nitroglycerin	2	14.525	14.477	0.048	65475	0.5000	0.5109	
14 o-Nitrotoluene	1	15.038	14.990	0.048	11922	0.0500	0.0505	
16 p-Nitrotoluene	1	15.272	15.223	0.049	10817	0.0500	0.0511	
17 4-Amino-2,6-dinitrotoluene	1	15.612	15.557	0.055	14345	0.0500	0.0515	
18 m-Nitrotoluene	1	16.092	16.043	0.049	13336	0.0500	0.0516	
19 2-Amino-4,6-dinitrotoluene	1	16.358	16.310	0.048	19449	0.0500	0.0499	
20 1,3,5-Trinitrobenzene	1	16.572	16.537	0.035	21679	0.0500	0.0512	
21 2,6-Dinitrotoluene	1	17.705	17.657	0.048	14521	0.0500	0.0510	
22 2,4-Dinitrotoluene	1	18.138	18.090	0.048	29669	0.0500	0.0522	
23 Tetryl	1	21.159	21.097	0.062	15725	0.0500	0.0555	M
24 2,4,6-Trinitrotoluene	1	22.025	21.977	0.048	20936	0.0500	0.0503	M
25 PETN	2	23.532	23.457	0.075	67315	0.5000	0.4957	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 5.00

Units: uL

Report Date: 13-Aug-2024 15:40:42

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100016.D

Injection Date: 10-Aug-2024 23:51:43

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 3

Worklist Smp#: 16

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

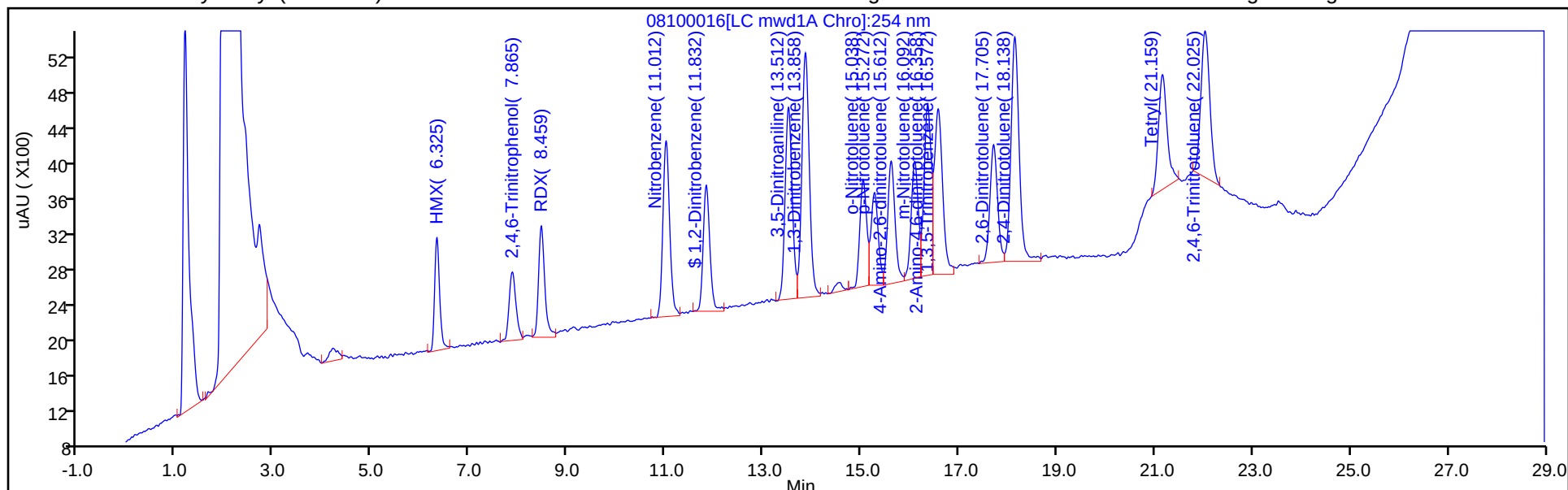
ALS Bottle#: 16

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

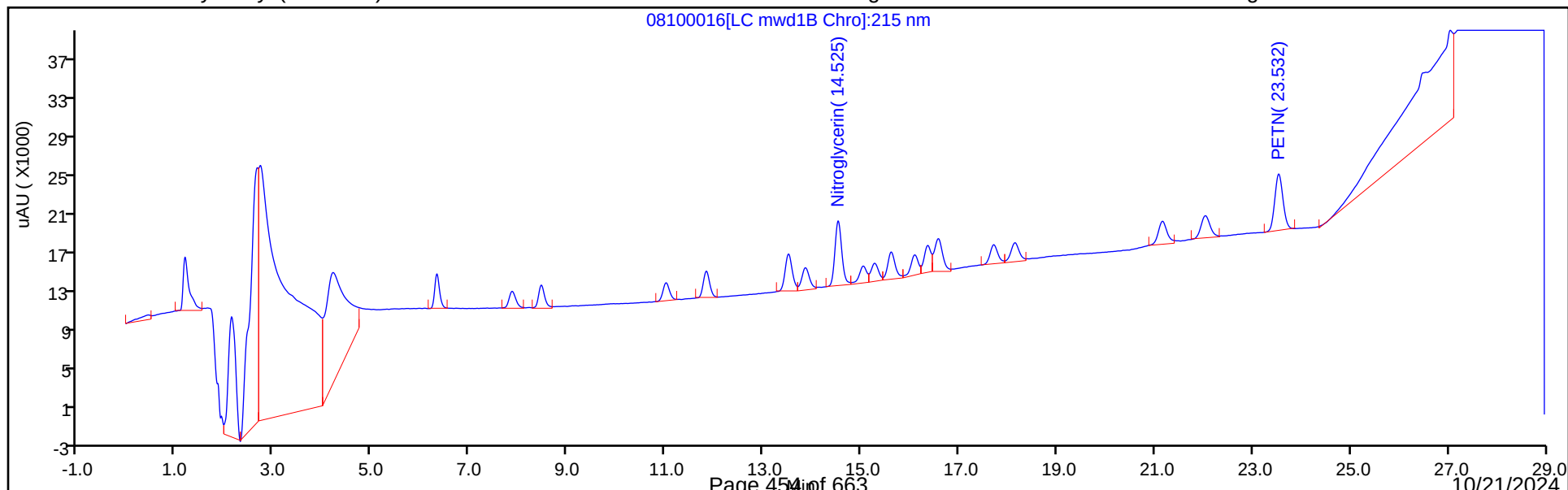
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

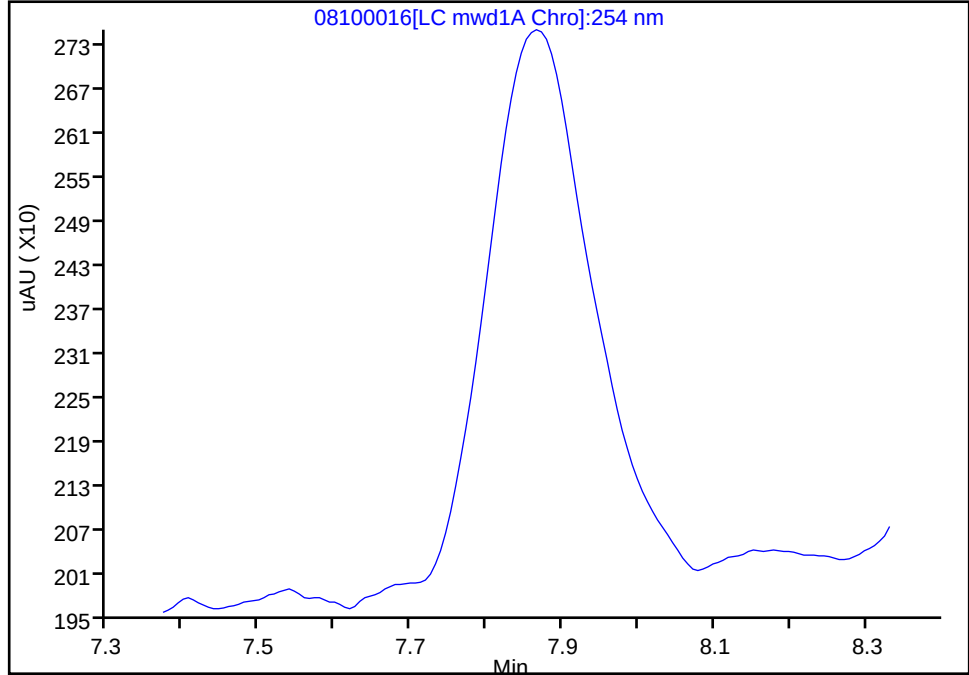
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100016.D
Injection Date: 10-Aug-2024 23:51:43 Instrument ID: CHHPLC_X5
Lims ID: IC INT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

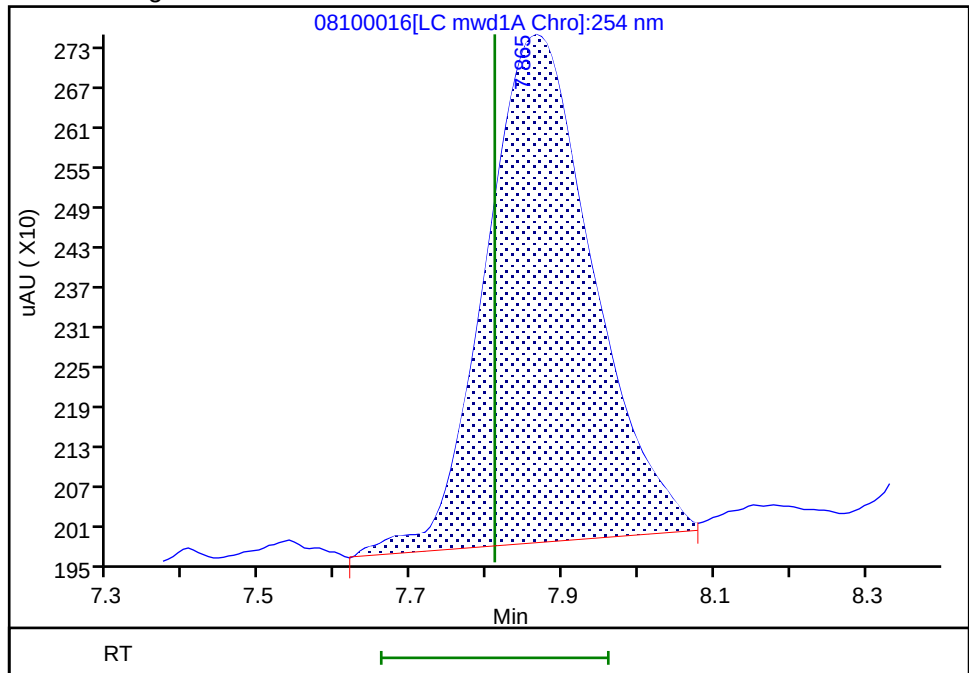
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.87
Area: 7567
Amount: 0.050494
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:53 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

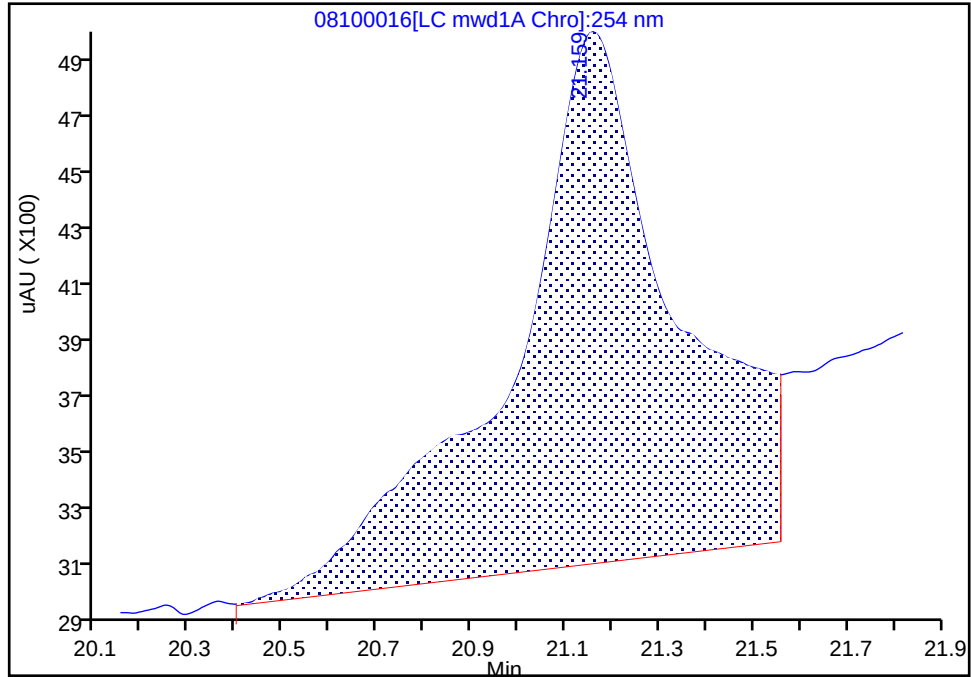
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100016.D
Injection Date: 10-Aug-2024 23:51:43 Instrument ID: CHHPLC_X5
Lims ID: IC INT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

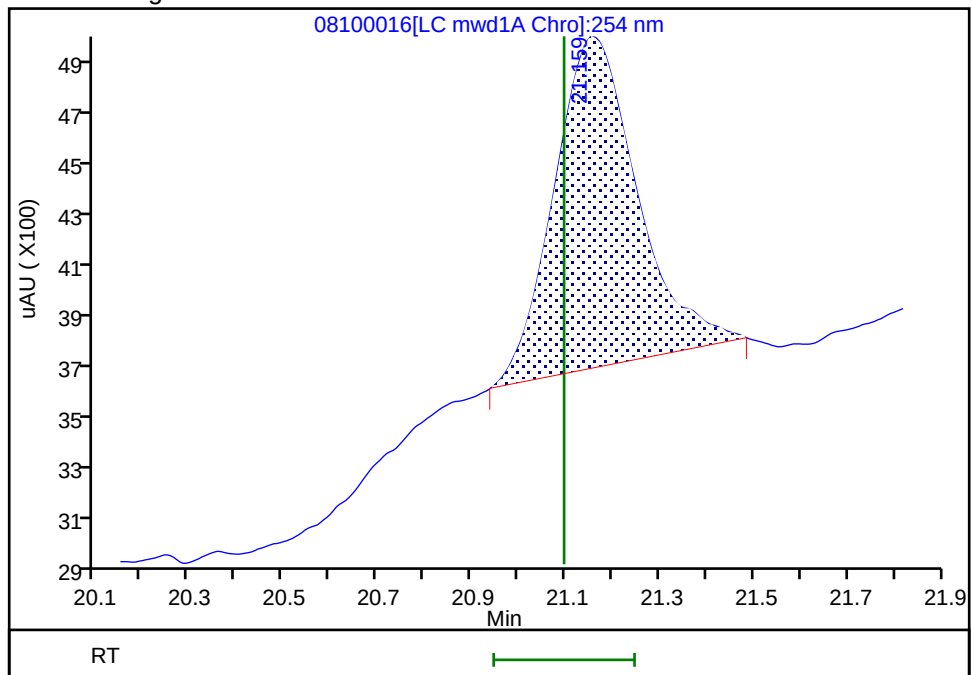
RT: 21.16
Area: 45404
Amount: 0.053183
Amount Units: ug/ml

Processing Integration Results



RT: 21.16
Area: 15725
Amount: 0.055499
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:47 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

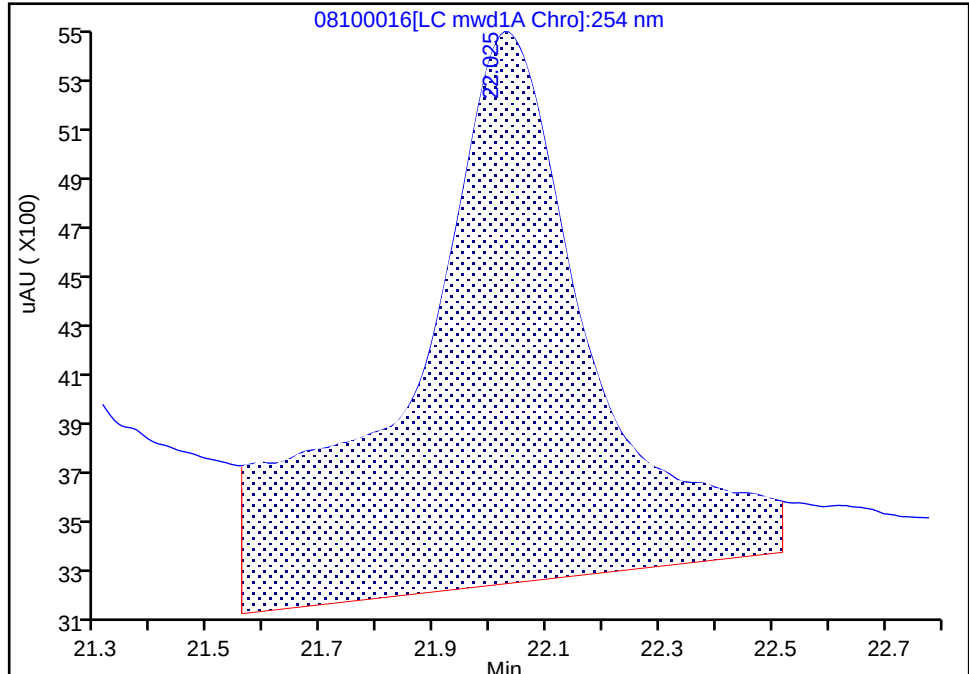
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100016.D
Injection Date: 10-Aug-2024 23:51:43 Instrument ID: CHHPLC_X5
Lims ID: IC INT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

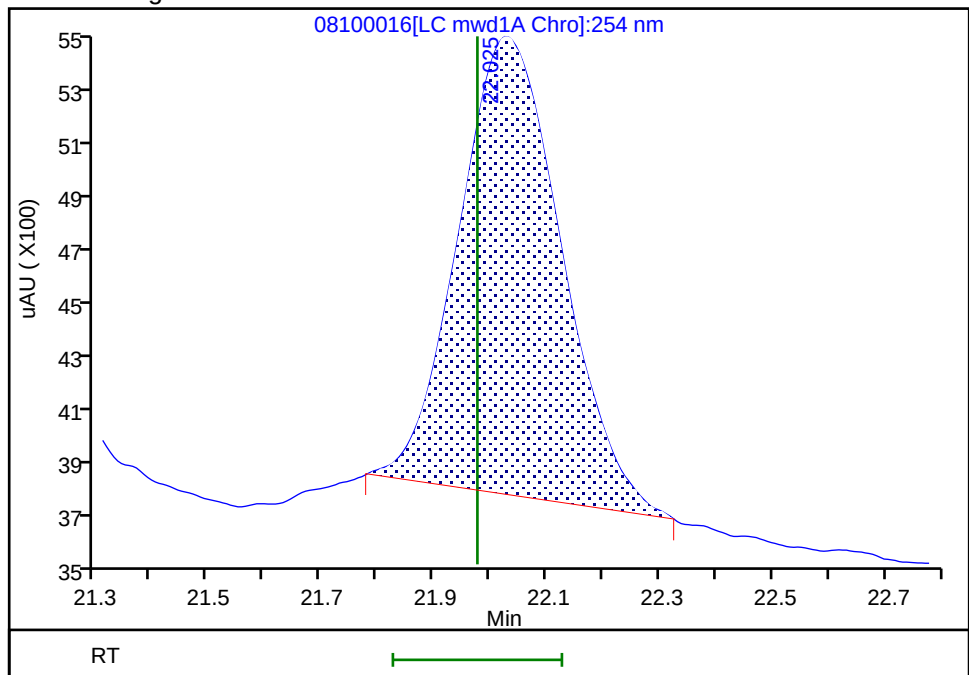
RT: 22.03
Area: 47856
Amount: 0.066877
Amount Units: ug/ml

Processing Integration Results



RT: 22.03
Area: 20936
Amount: 0.050300
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Aug-2024 00:26:39 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:43 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:14:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.336	6.324	0.012	3967	0.0200	0.0220	
7 2,4,6-Trinitrophenol	1	7.870	7.810	0.060	2918	0.0200	0.0195	a
8 RDX	1	8.470	8.437	0.033	4852	0.0200	0.0220	
9 Nitrobenzene	1	11.016	10.983	0.033	7452	0.0200	0.0198	M
\$ 10 1,2-Dinitrobenzene	1	11.843	11.797	0.046	5053	0.0200	0.0193	M
11 3,5-Dinitroaniline	1	13.516	13.470	0.046	9158	0.0200	0.0205	M
12 1,3-Dinitrobenzene	1	13.863	13.823	0.040	11541	0.0200	0.0197	M
13 Nitroglycerin	2	14.529	14.477	0.052	24016	0.2000	0.1874	M
14 o-Nitrotoluene	1	15.036	14.990	0.046	4738	0.0200	0.0201	M
16 p-Nitrotoluene	1	15.276	15.223	0.053	4148	0.0200	0.0196	M
17 4-Amino-2,6-dinitrotoluene	1	15.616	15.557	0.059	5455	0.0200	0.0196	M
18 m-Nitrotoluene	1	16.096	16.043	0.053	5081	0.0200	0.0197	M
19 2-Amino-4,6-dinitrotoluene	1	16.363	16.310	0.053	7784	0.0200	0.0200	M
20 1,3,5-Trinitrobenzene	1	16.576	16.537	0.039	8315	0.0200	0.0196	M
21 2,6-Dinitrotoluene	1	17.703	17.657	0.046	6144	0.0200	0.0216	
22 2,4-Dinitrotoluene	1	18.136	18.090	0.046	12012	0.0200	0.0211	
23 Tetryl	1	21.150	21.097	0.053	4871	0.0200	0.0172	M
24 2,4,6-Trinitrotoluene	1	22.023	21.977	0.046	8874	0.0200	0.0213	M
25 PETN	2	23.516	23.457	0.059	27366	0.2000	0.2015	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 2.00

Units: uL

Report Date: 13-Aug-2024 15:40:43

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D

Injection Date: 11-Aug-2024 00:26:39

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 2

Worklist Smp#: 17

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

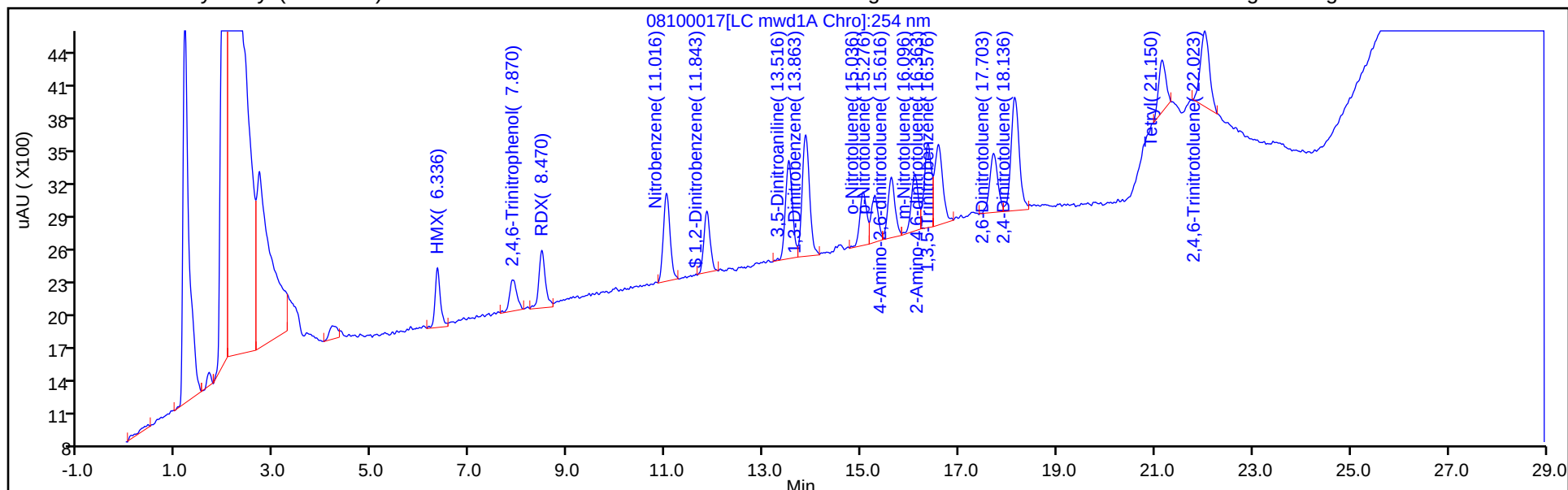
ALS Bottle#: 17

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

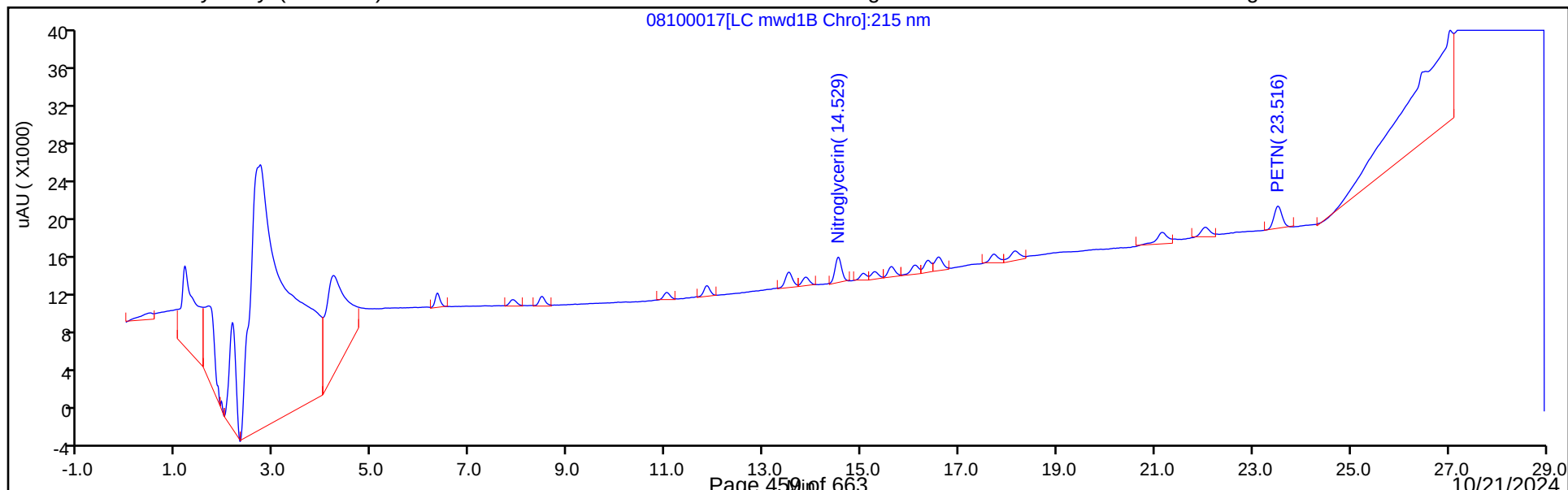
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

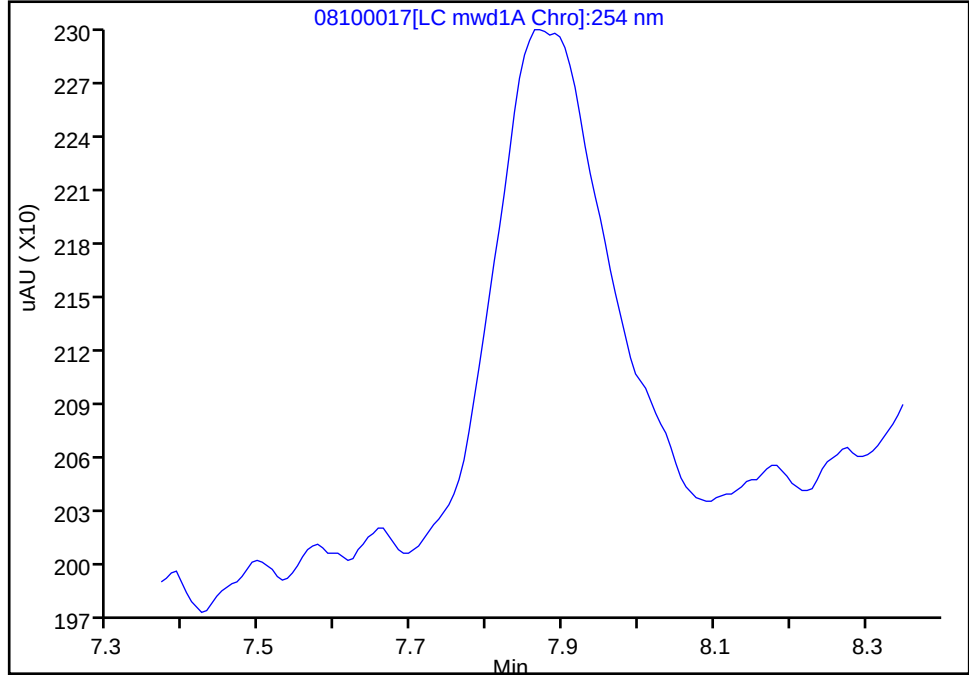
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

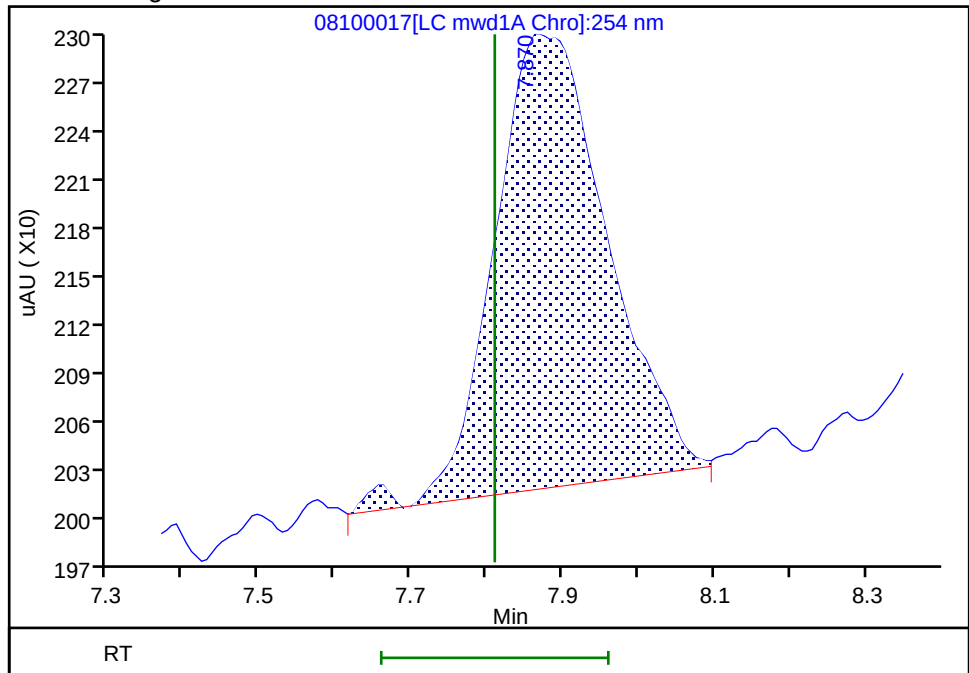
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.87
Area: 2918
Amount: 0.019472
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:12:58 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

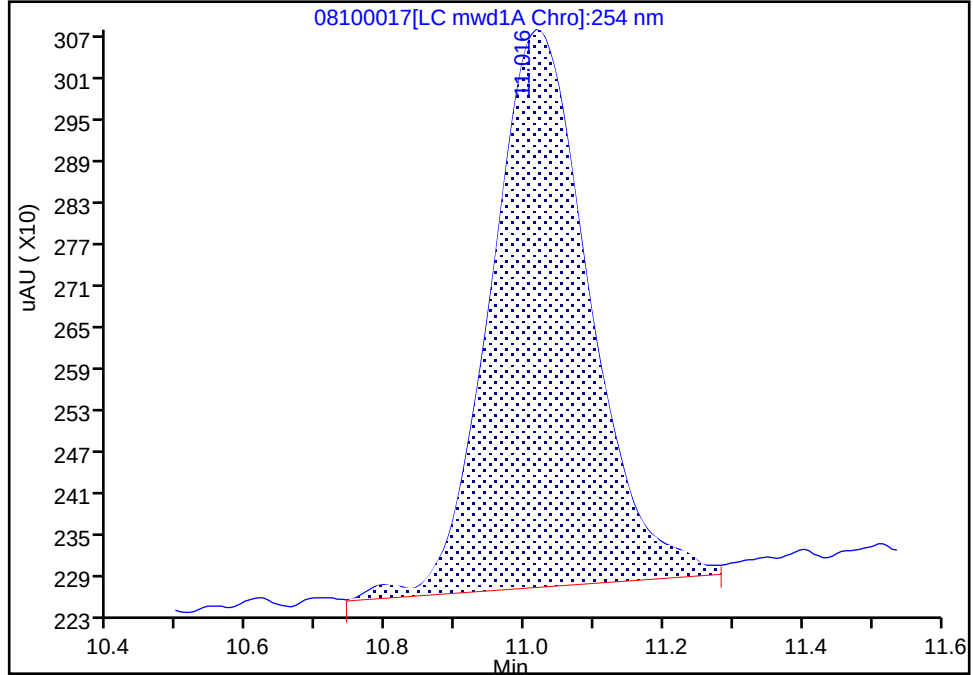
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

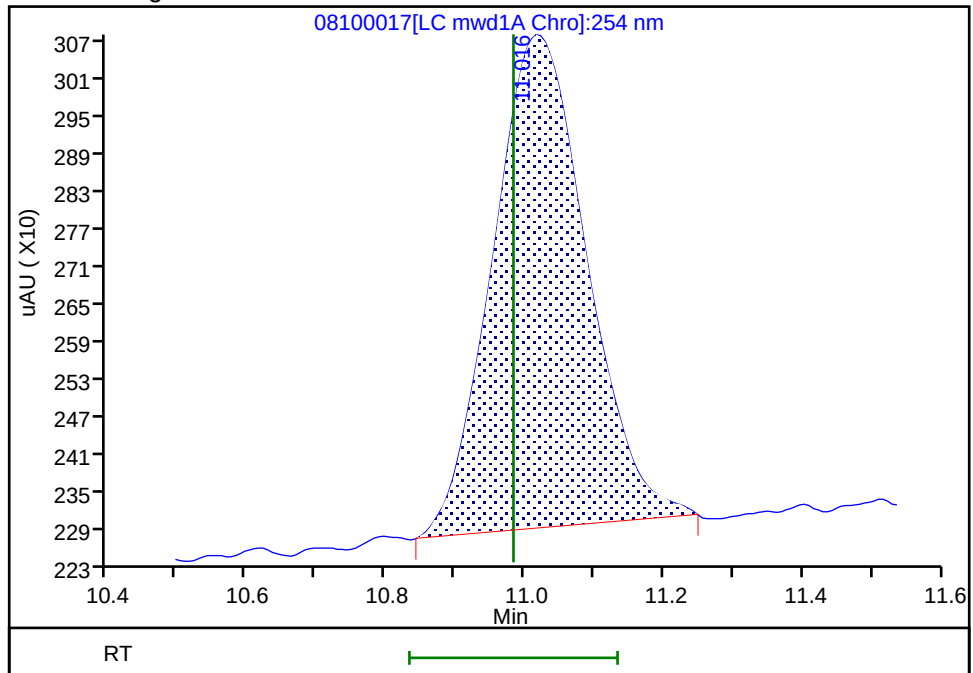
RT: 11.02
Area: 7978
Amount: 0.020754
Amount Units: ug/ml

Processing Integration Results



RT: 11.02
Area: 7452
Amount: 0.019770
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

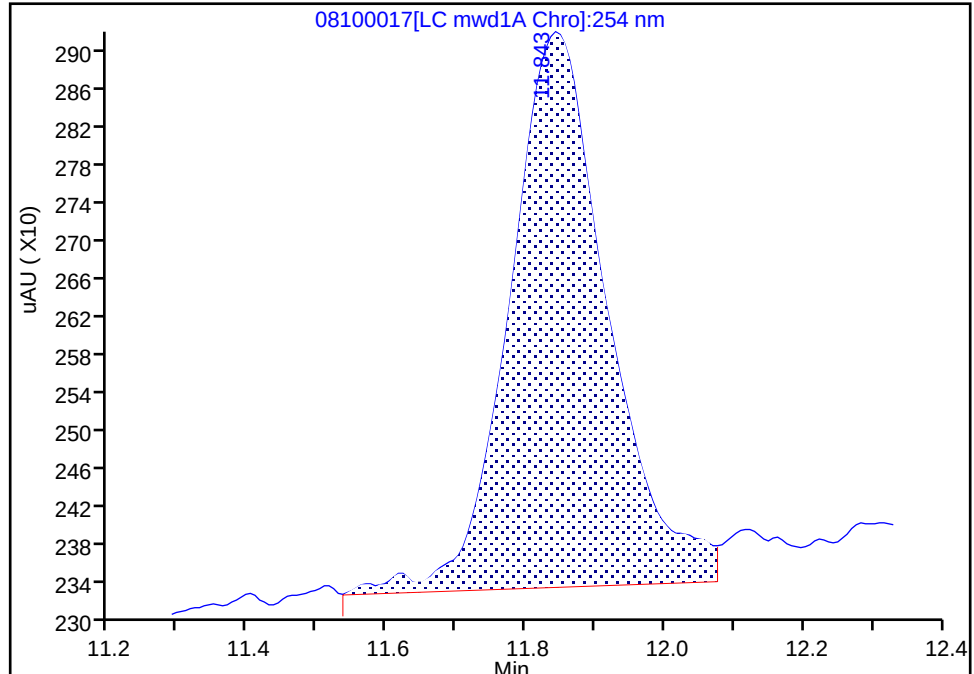
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

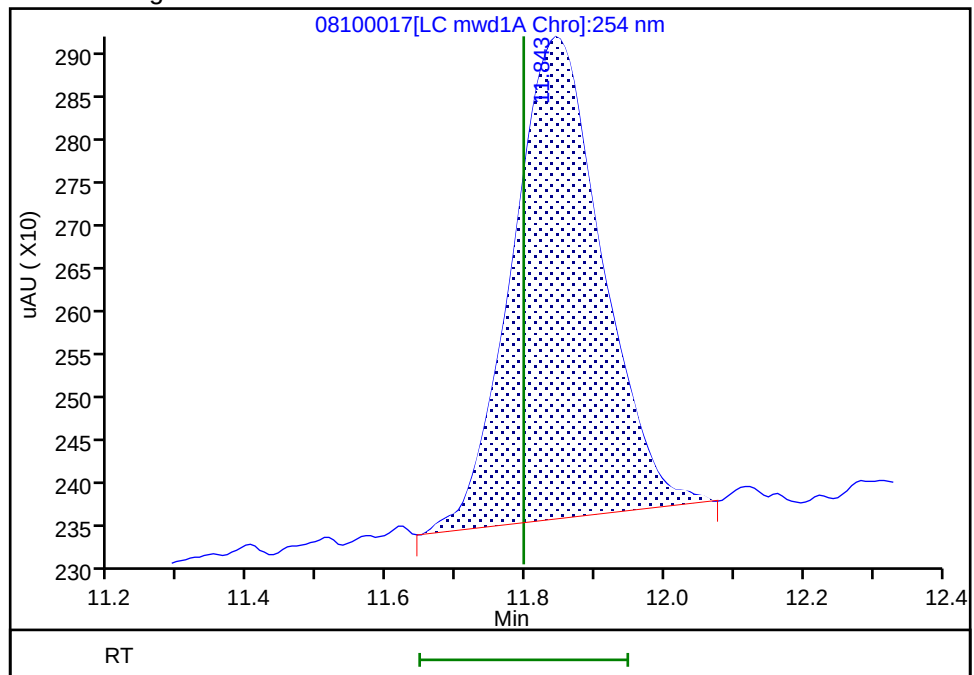
RT: 11.84
Area: 5737
Amount: 0.020889
Amount Units: ug/ml

Processing Integration Results



RT: 11.84
Area: 5053
Amount: 0.019250
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

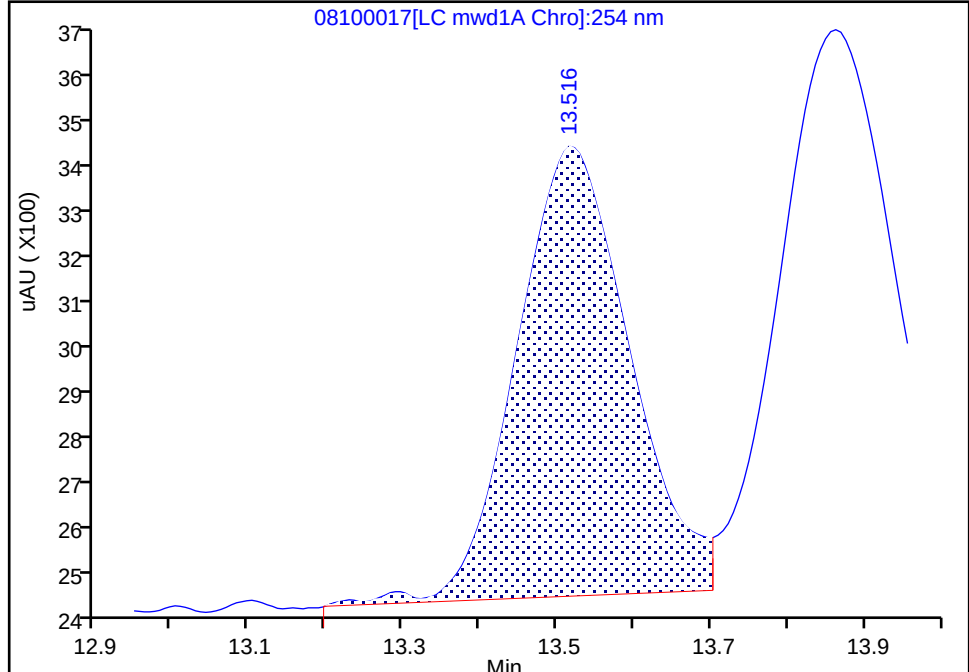
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

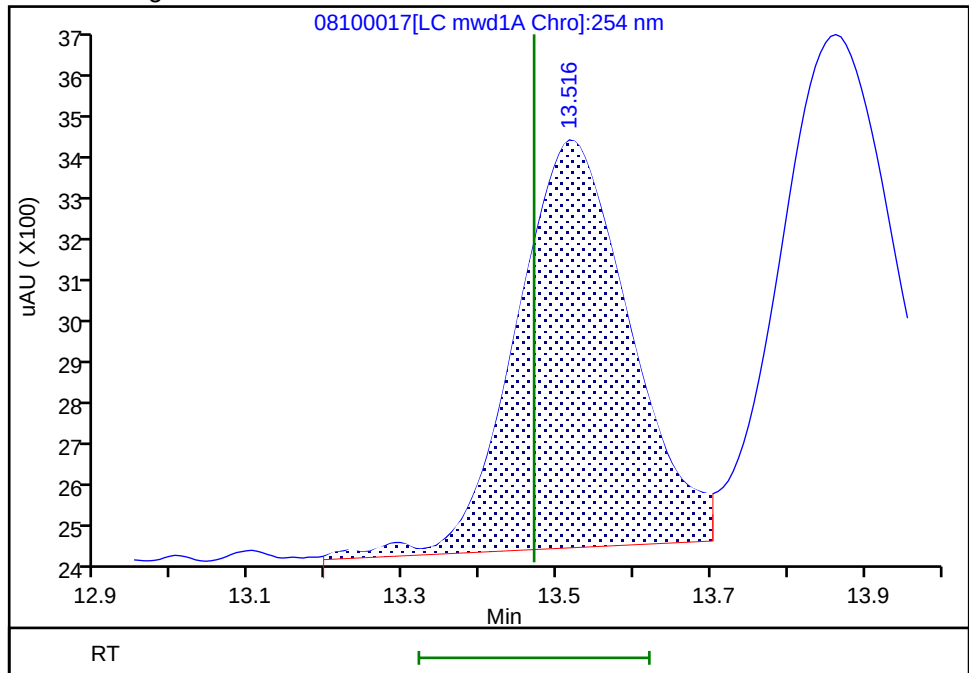
RT: 13.52
Area: 9142
Amount: 0.020297
Amount Units: ug/ml

Processing Integration Results



RT: 13.52
Area: 9158
Amount: 0.020533
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:13 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

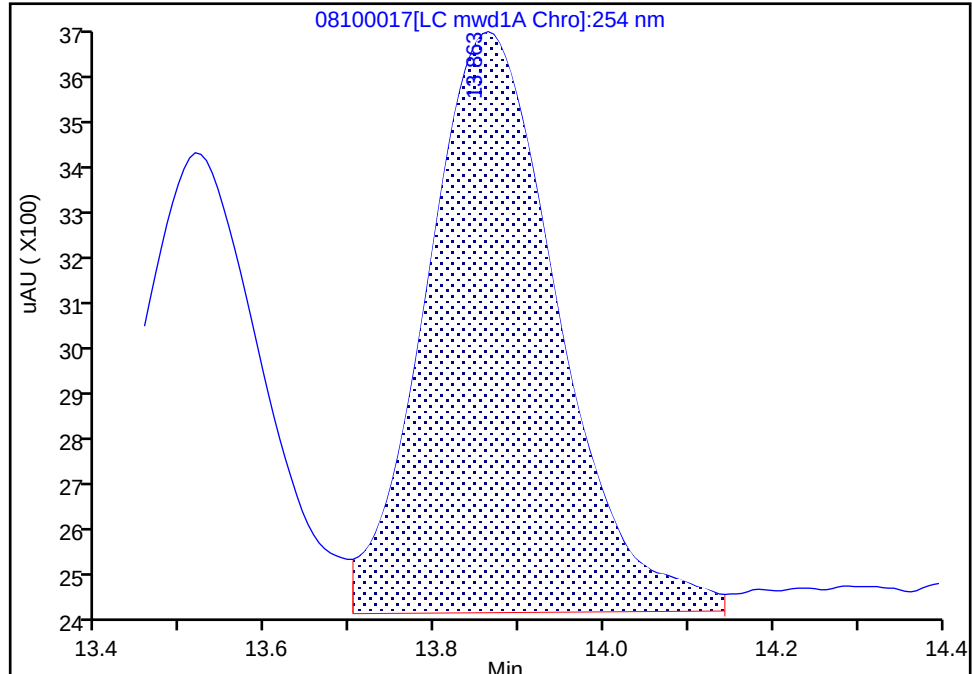
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

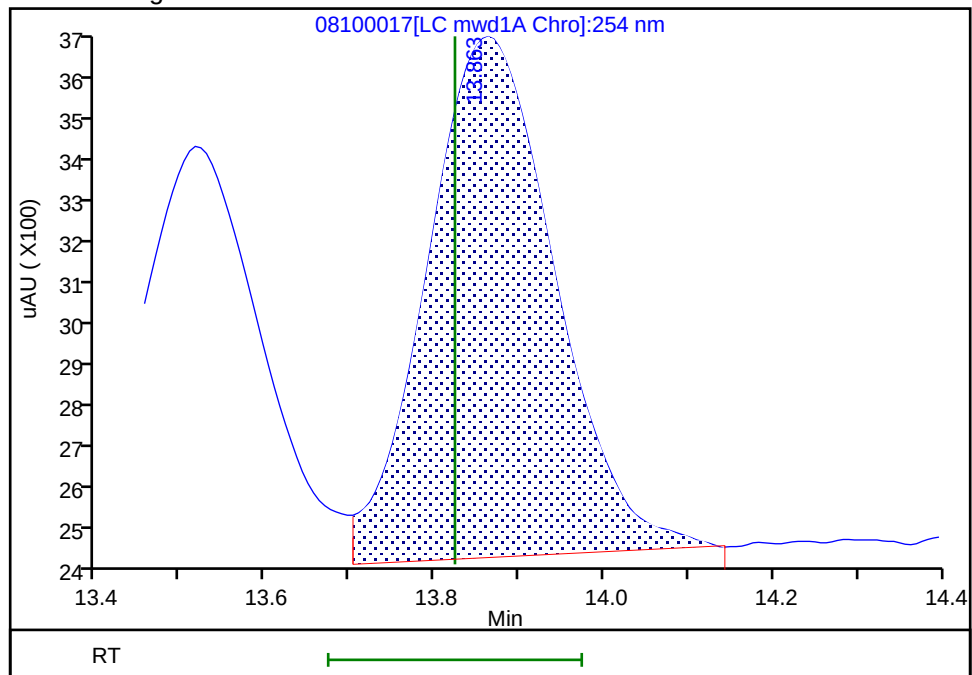
RT: 13.86
Area: 12029
Amount: 0.020297
Amount Units: ug/ml

Processing Integration Results



RT: 13.86
Area: 11541
Amount: 0.019720
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:13 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

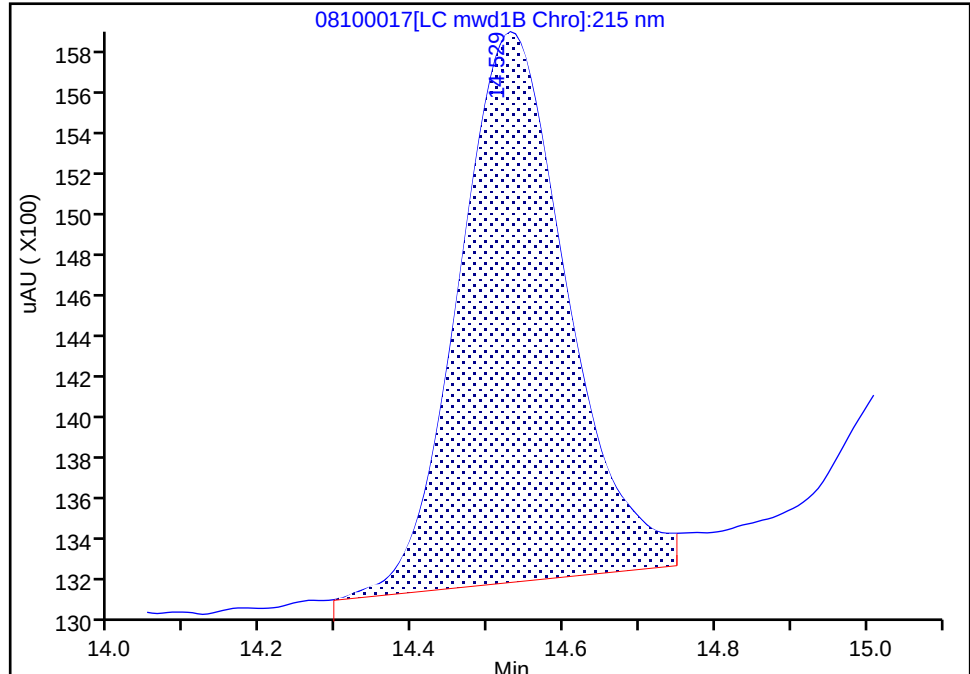
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

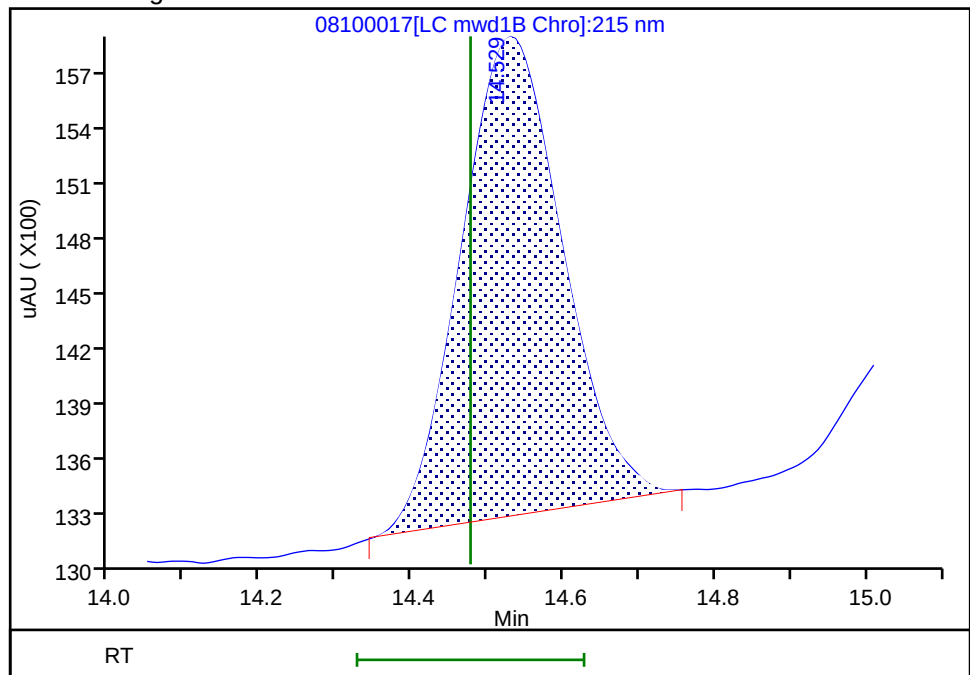
RT: 14.53
Area: 26510
Amount: 0.204651
Amount Units: ug/ml

Processing Integration Results



RT: 14.53
Area: 24016
Amount: 0.187402
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

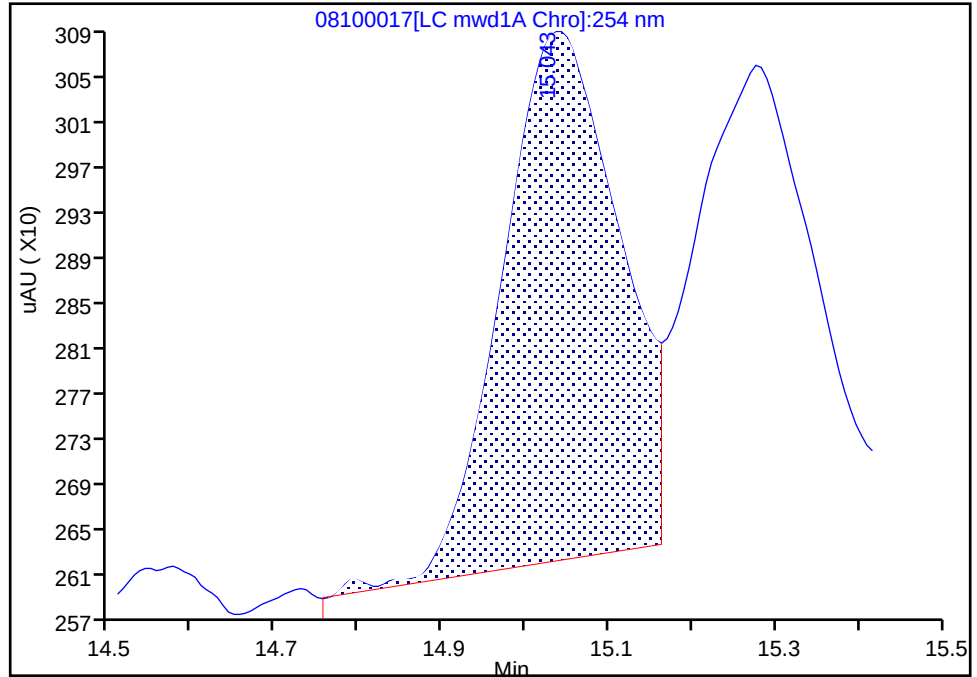
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

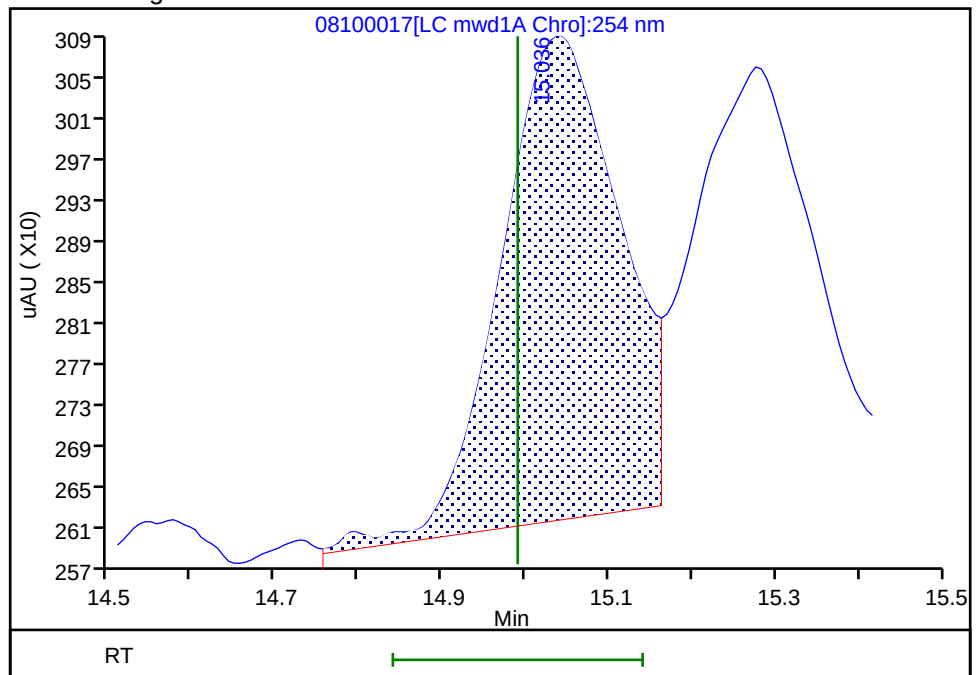
RT: 15.04
Area: 4641
Amount: 0.019753
Amount Units: ug/ml

Processing Integration Results



RT: 15.04
Area: 4738
Amount: 0.020088
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

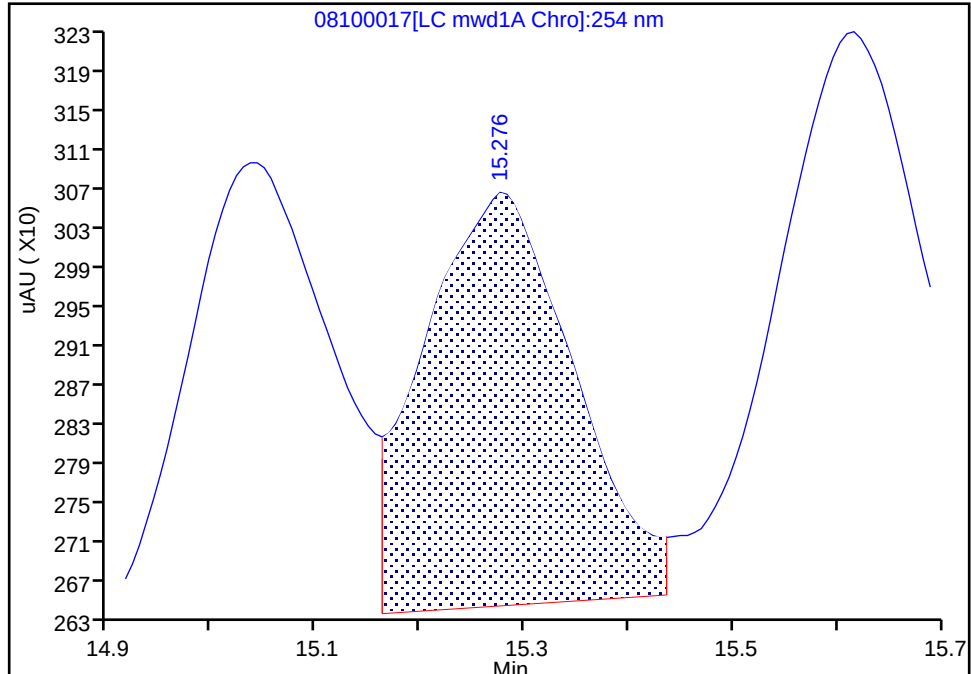
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

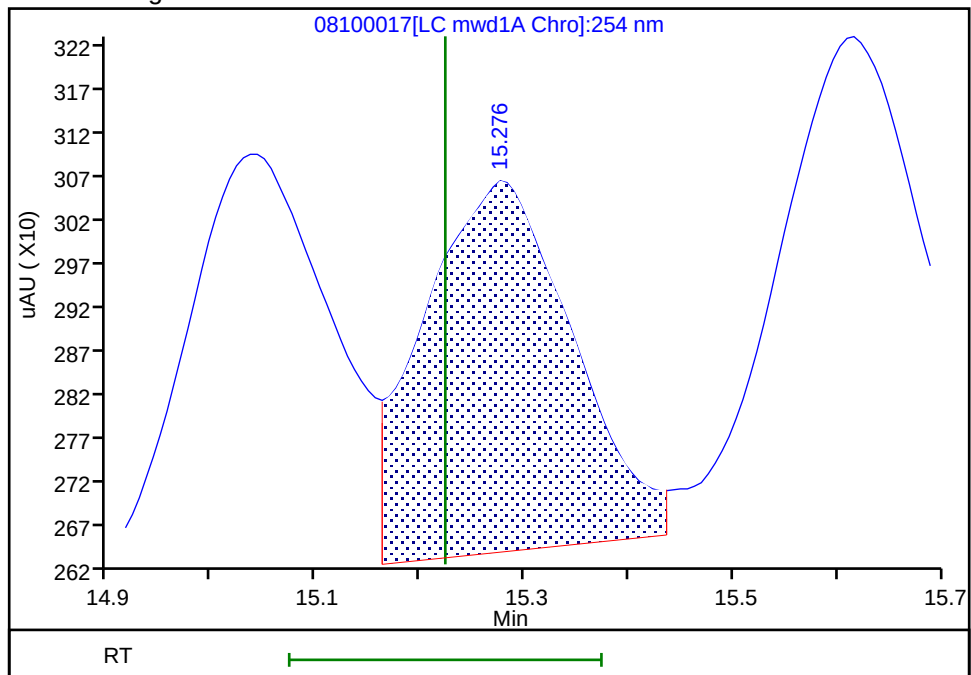
RT: 15.28
Area: 4181
Amount: 0.019726
Amount Units: ug/ml

Processing Integration Results



RT: 15.28
Area: 4148
Amount: 0.019596
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

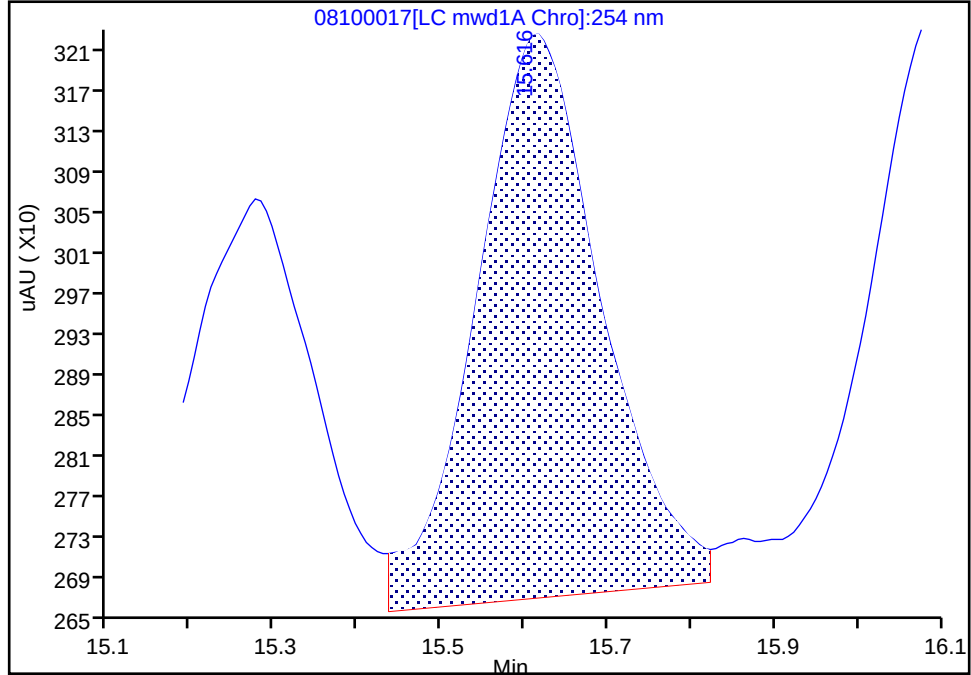
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

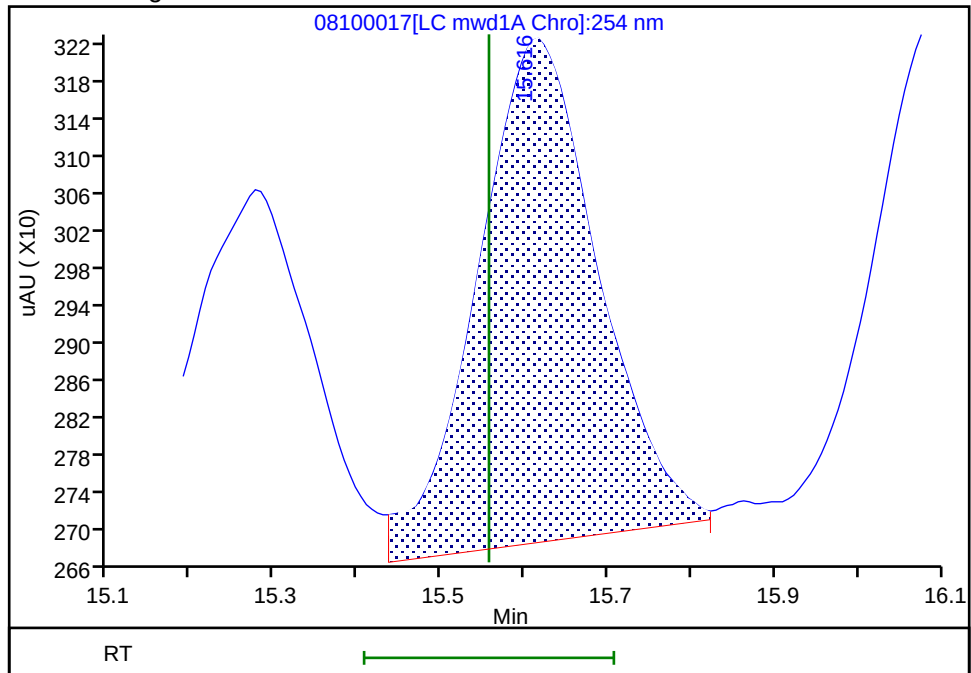
RT: 15.62
Area: 5814
Amount: 0.019929
Amount Units: ug/ml

Processing Integration Results



RT: 15.62
Area: 5455
Amount: 0.019581
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

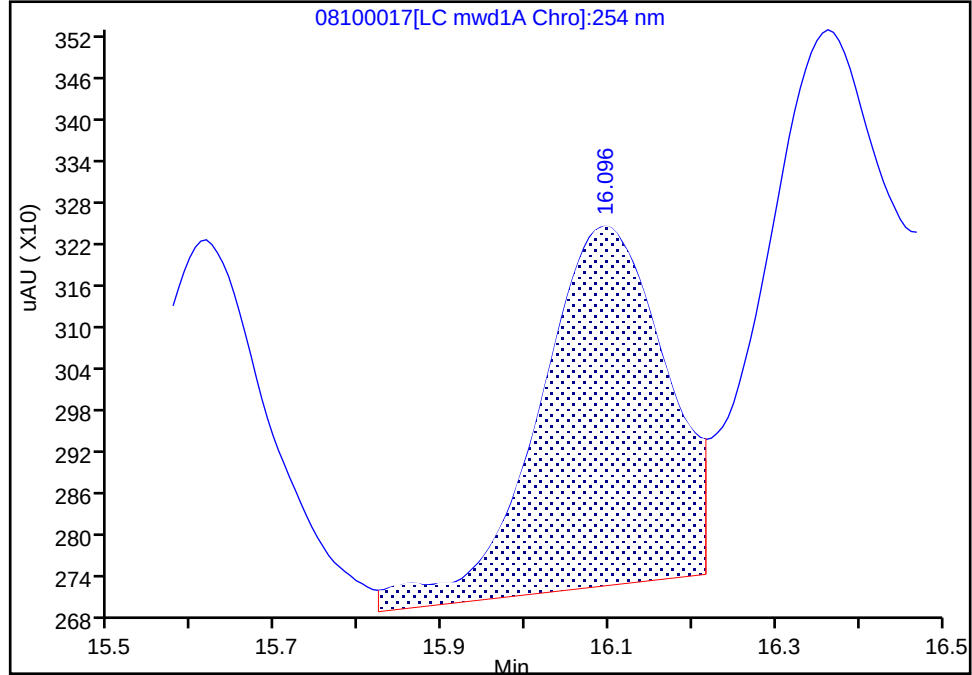
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

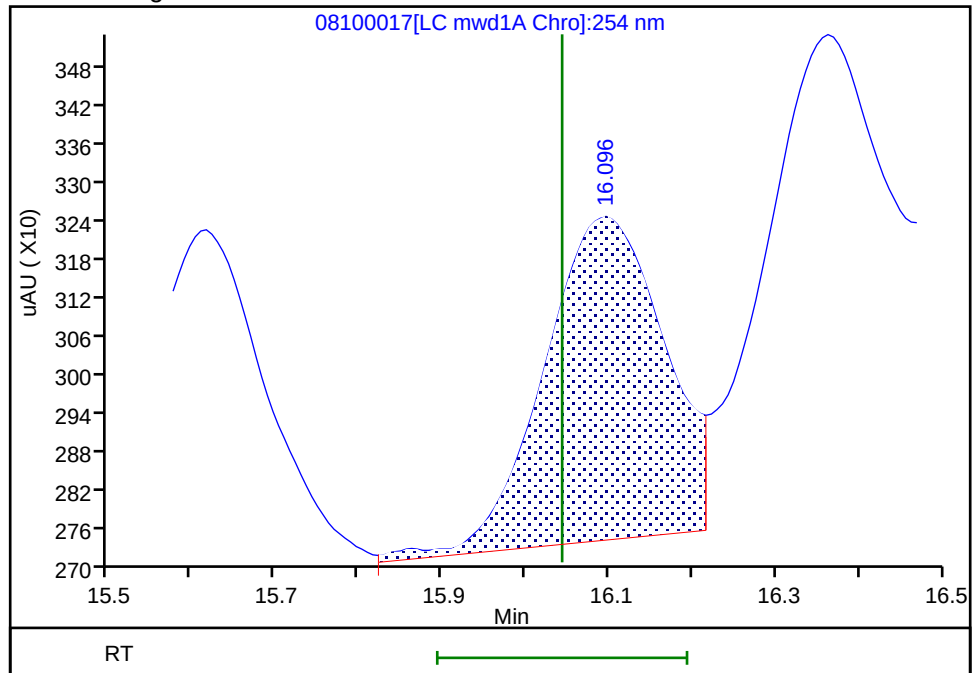
RT: 16.10
Area: 5506
Amount: 0.020883
Amount Units: ug/ml

Processing Integration Results



RT: 16.10
Area: 5081
Amount: 0.019677
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

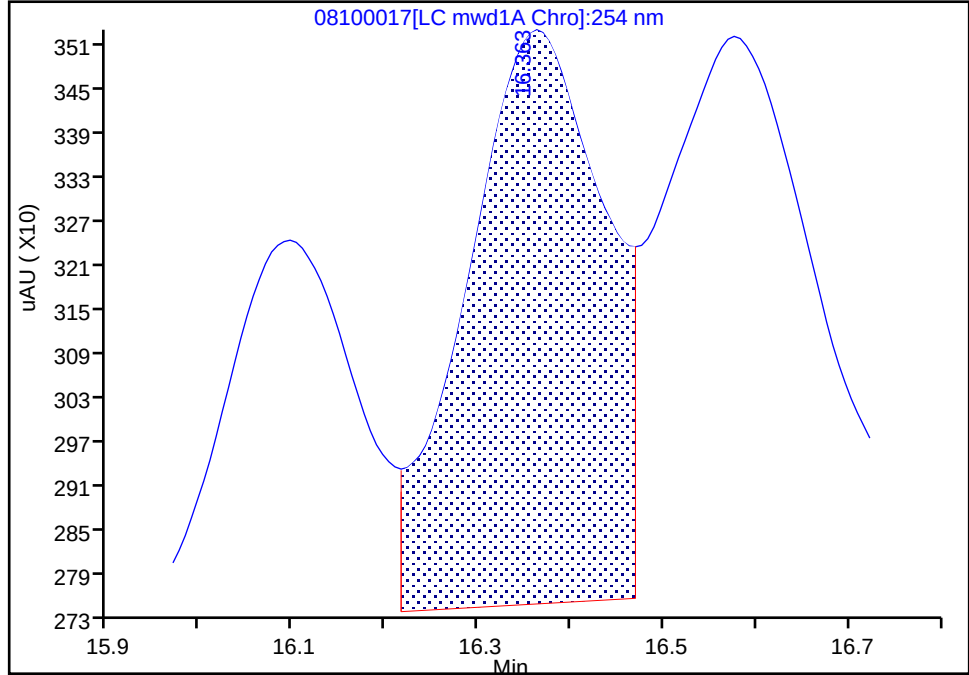
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

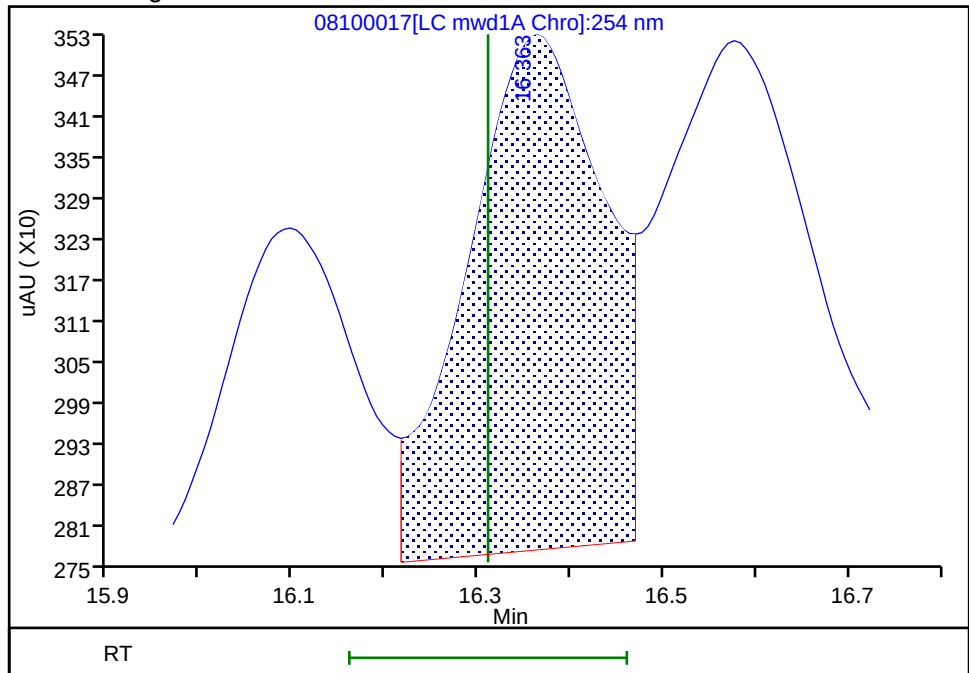
RT: 16.36
Area: 8065
Amount: 0.020539
Amount Units: ug/ml

Processing Integration Results



RT: 16.36
Area: 7784
Amount: 0.019989
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D

Injection Date: 11-Aug-2024 00:26:39

Instrument ID: CHHPLC_X5

Lims ID: IC INT 2

Client ID:

Operator ID: JZ

ALS Bottle#:

17

Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

Detector

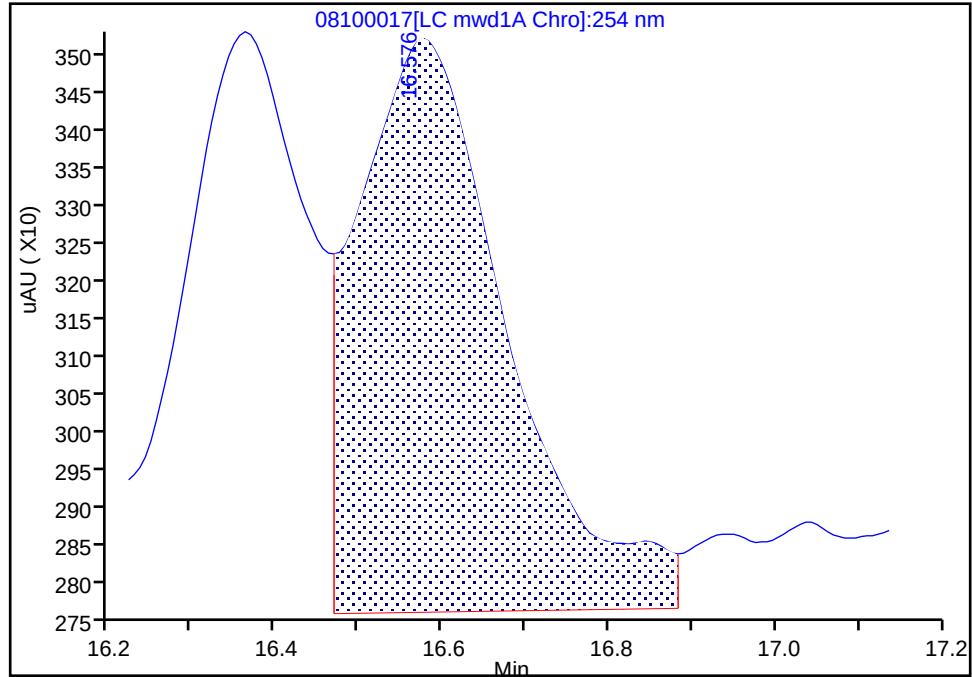
LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

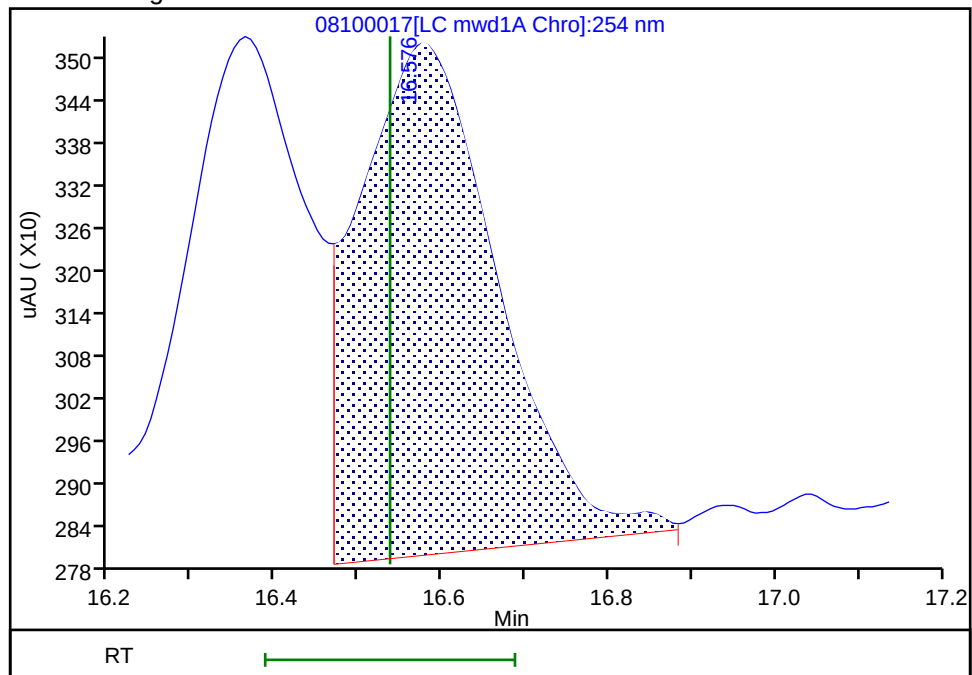
RT: 16.58
Area: 9419
Amount: 0.021531
Amount Units: ug/ml

Processing Integration Results



RT: 16.58
Area: 8315
Amount: 0.019620
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:13:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D

Injection Date: 11-Aug-2024 00:26:39

Instrument ID: CHHPLC_X5

Lims ID: IC INT 2

Client ID:

Operator ID: JZ

ALS Bottle#: 17 Worklist Smp#: 17

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

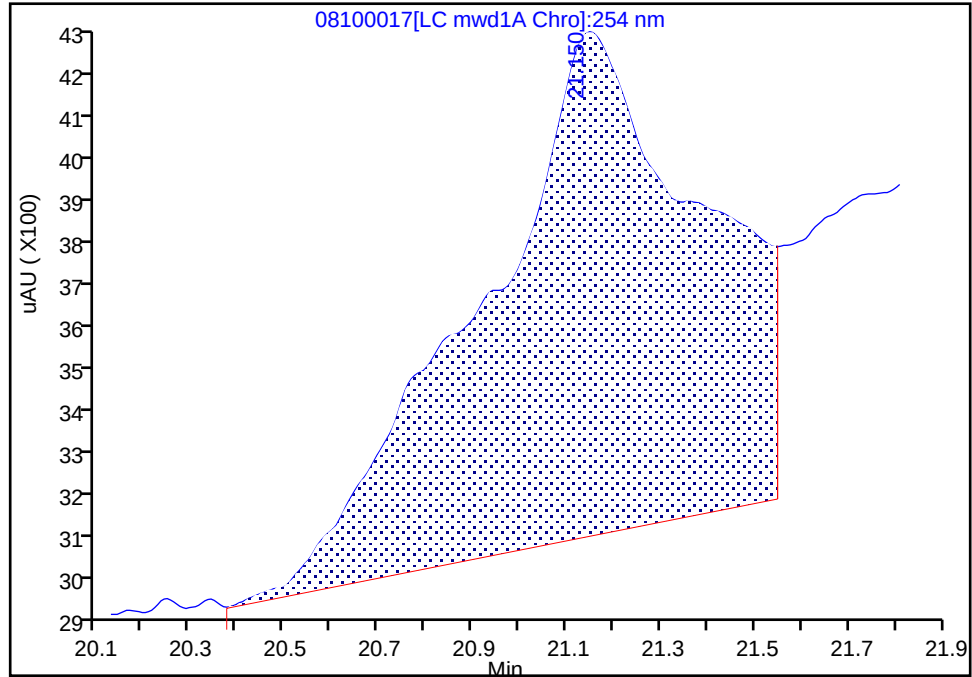
Detector: LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

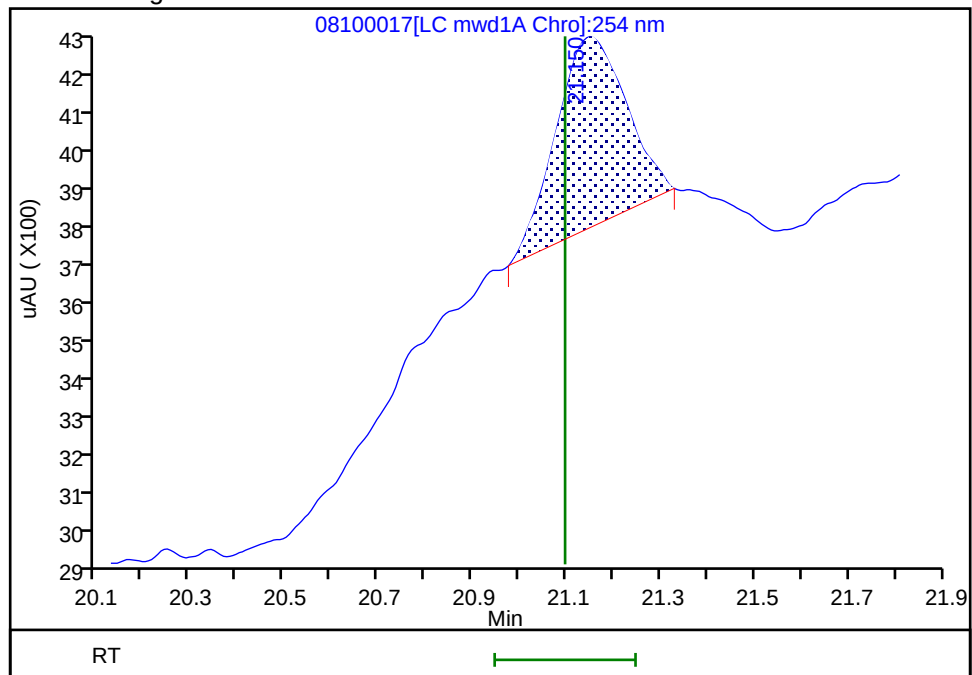
RT: 21.15
Area: 36766
Amount: 0.046671
Amount Units: ug/ml

Processing Integration Results



RT: 21.15
Area: 4871
Amount: 0.017192
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:14:37 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

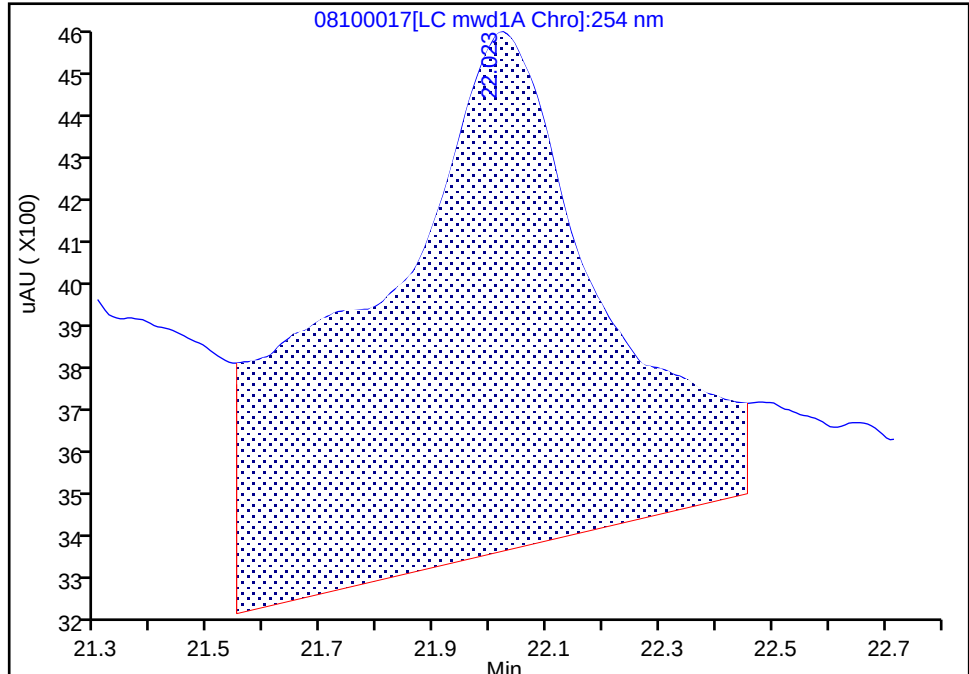
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100017.D
Injection Date: 11-Aug-2024 00:26:39 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

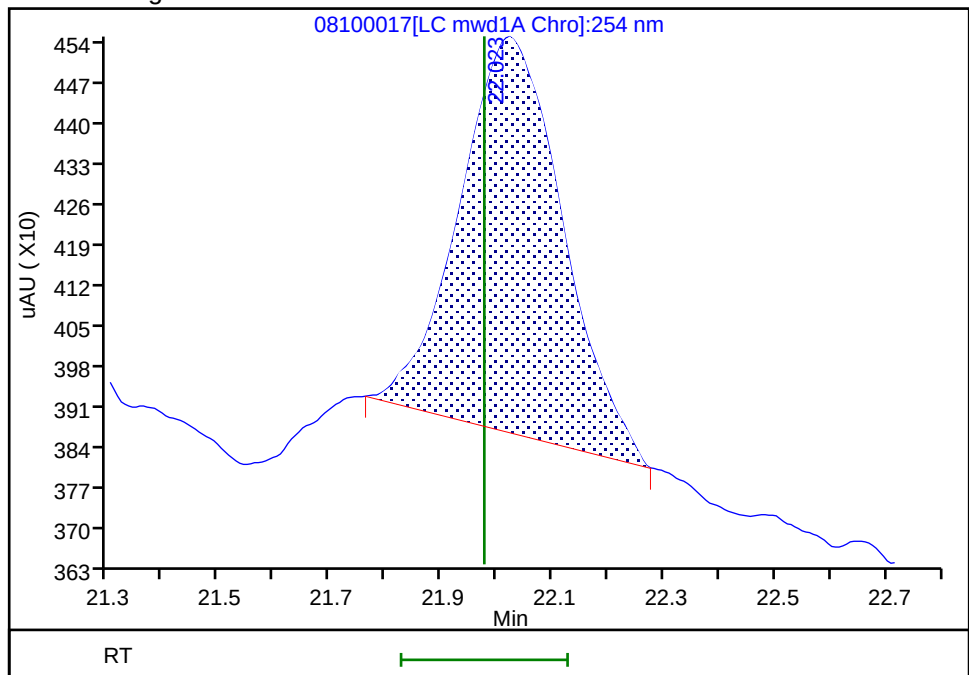
RT: 22.02
Area: 34096
Amount: 0.035925
Amount Units: ug/ml

Processing Integration Results



RT: 22.02
Area: 8874
Amount: 0.021320
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:14:33 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Aug-2024 01:01:34 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7
Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 13-Aug-2024 15:40:44 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D
Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:15:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.324	6.324	0.000	1671	0.0100	0.009266	M
7 2,4,6-Trinitrophenol	1	7.864	7.810	0.054	1564	0.0100	0.0104	a
8 RDX	1	8.457	8.437	0.020	2773	0.0100	0.0126	
9 Nitrobenzene	1	11.004	10.983	0.021	3755	0.0100	0.0100	M
\$ 10 1,2-Dinitrobenzene	1	11.831	11.797	0.034	2585	0.0100	0.009848	M
11 3,5-Dinitroaniline	1	13.511	13.470	0.041	4508	0.0100	0.009865	M
12 1,3-Dinitrobenzene	1	13.851	13.823	0.028	6059	0.0100	0.0104	M
13 Nitroglycerin	2	14.524	14.477	0.047	14206	0.1000	0.1109	
14 o-Nitrotoluene	1	15.031	14.990	0.041	2340	0.0100	0.0099	M
16 p-Nitrotoluene	1	15.284	15.223	0.061	2037	0.0100	0.009623	M
17 4-Amino-2,6-dinitrotoluene	1	15.611	15.557	0.054	2787	0.0100	0.0100	M
18 m-Nitrotoluene	1	16.091	16.043	0.048	2547	0.0100	0.009864	M
19 2-Amino-4,6-dinitrotoluene	1	16.364	16.310	0.054	3972	0.0100	0.0102	M
20 1,3,5-Trinitrobenzene	1	16.577	16.537	0.040	4185	0.0100	0.009875	M
21 2,6-Dinitrotoluene	1	17.691	17.657	0.034	3065	0.0100	0.0108	M
22 2,4-Dinitrotoluene	1	18.131	18.090	0.041	5939	0.0100	0.0104	M
23 Tetryl	1	21.151	21.097	0.054	2430	0.0100	0.008576	M
24 2,4,6-Trinitrotoluene	1	22.017	21.977	0.040	4082	0.0100	0.009807	M
25 PETN	2	23.537	23.457	0.080	13555	0.1000	0.0998	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00082

Amount Added: 1.00

Units: uL

Report Date: 13-Aug-2024 15:40:44

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D

Injection Date: 11-Aug-2024 01:01:34

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: IC INT 1

Worklist Smp#: 18

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

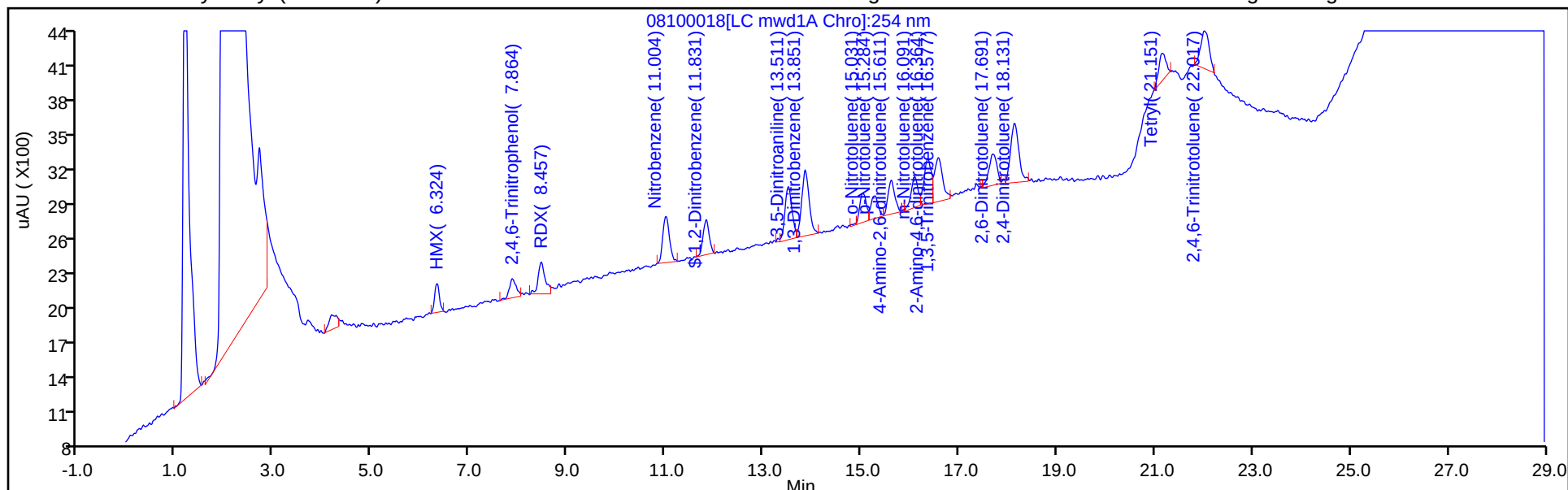
ALS Bottle#: 18

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

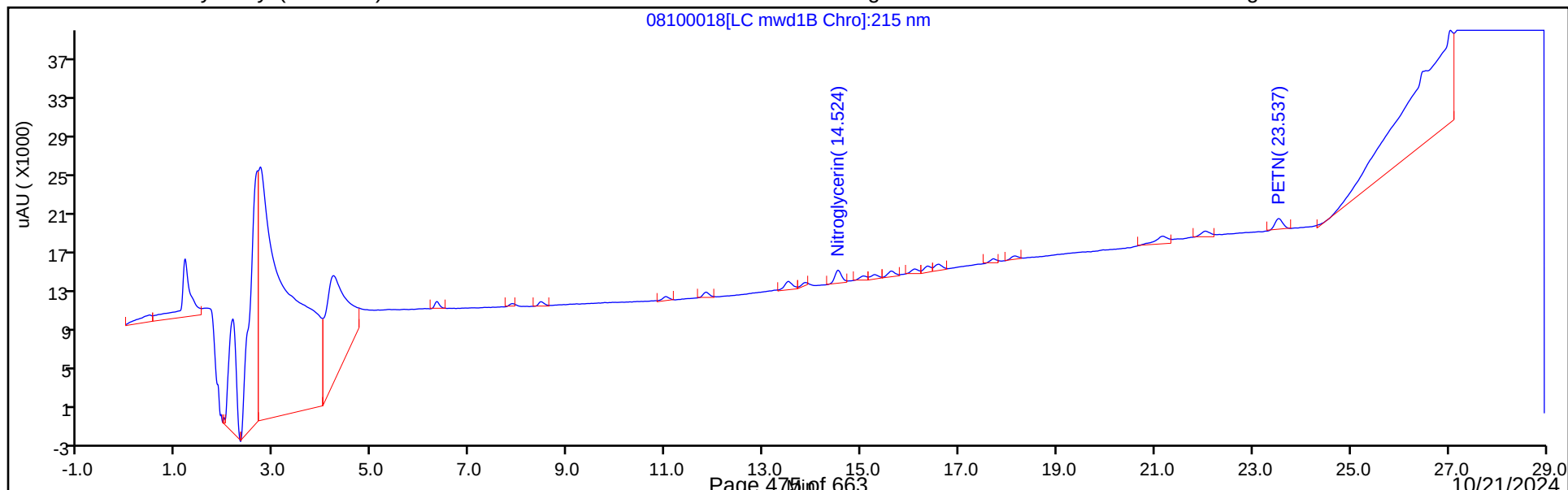
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

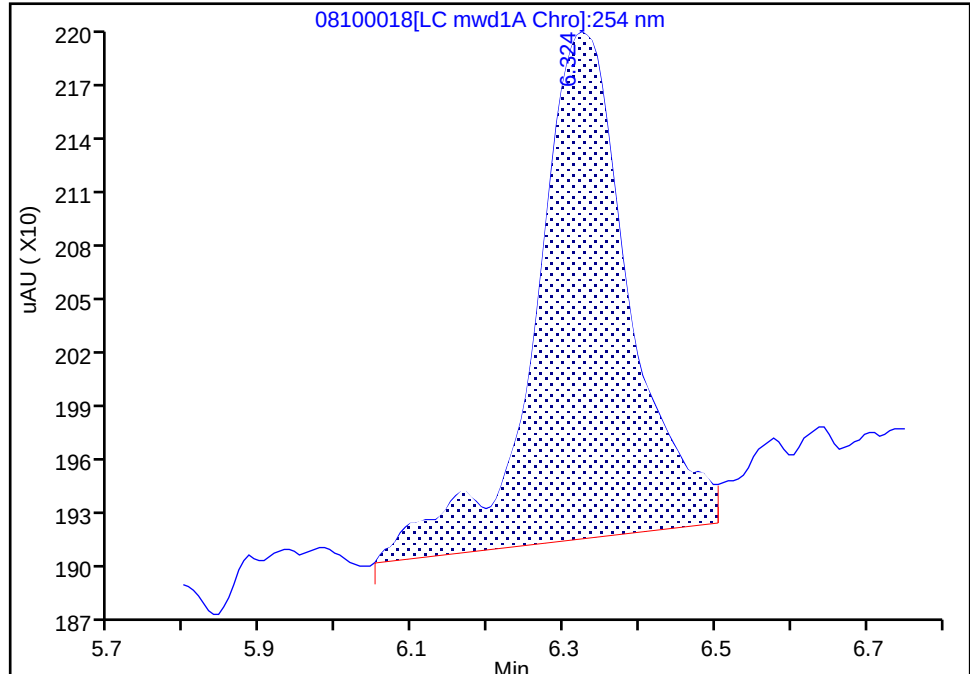
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

5 HMX, CAS: 2691-41-0

Signal: 1

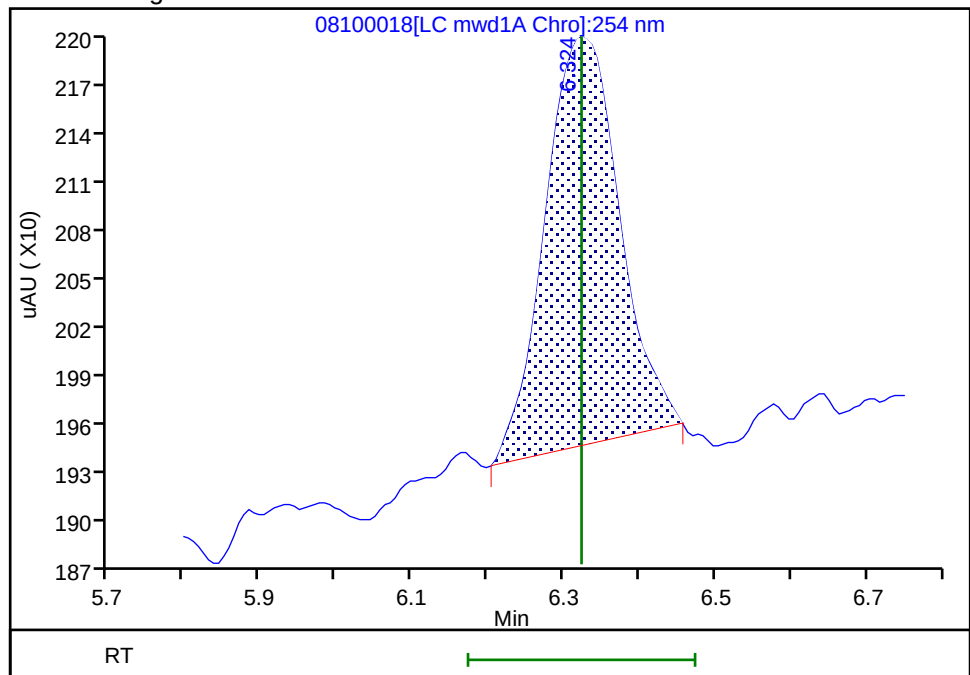
RT: 6.32
Area: 2379
Amount: 0.010242
Amount Units: ug/ml

Processing Integration Results



RT: 6.32
Area: 1671
Amount: 0.009266
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:33 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

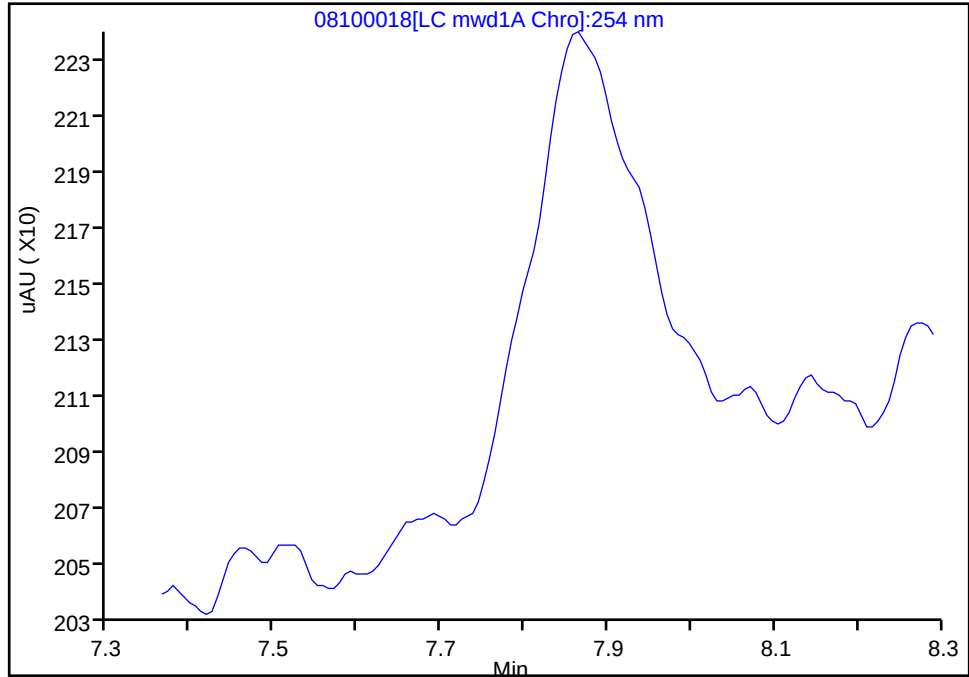
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

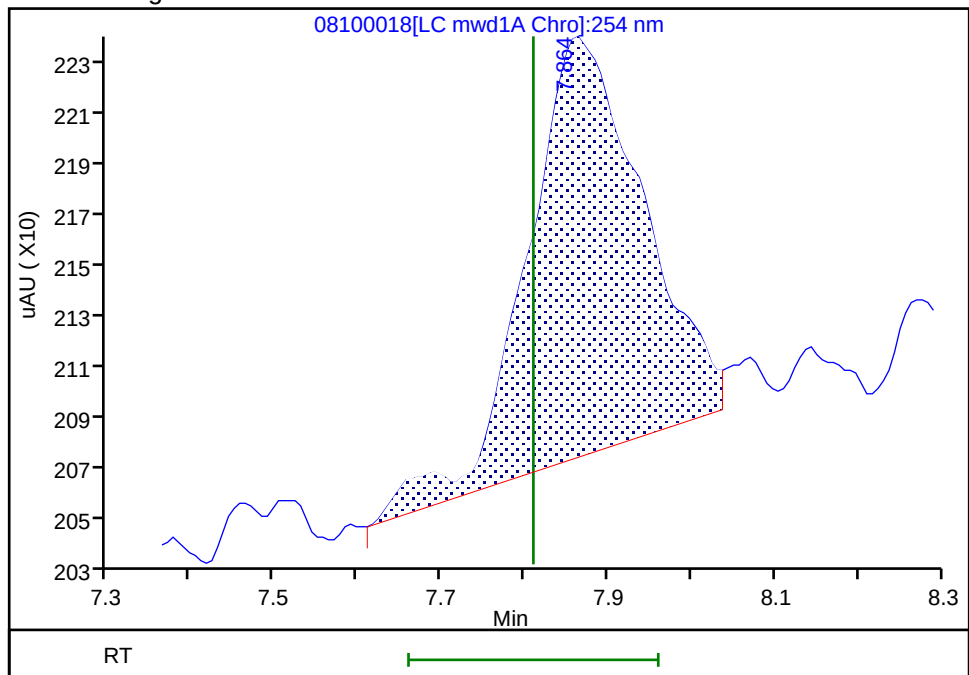
Not Detected
Expected RT: 7.81

Processing Integration Results



RT: 7.86
Area: 1564
Amount: 0.010436
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:14:51 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D

Injection Date: 11-Aug-2024 01:01:34

Instrument ID: CHHPLC_X5

Lims ID: IC INT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

18

Worklist Smp#: 18

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

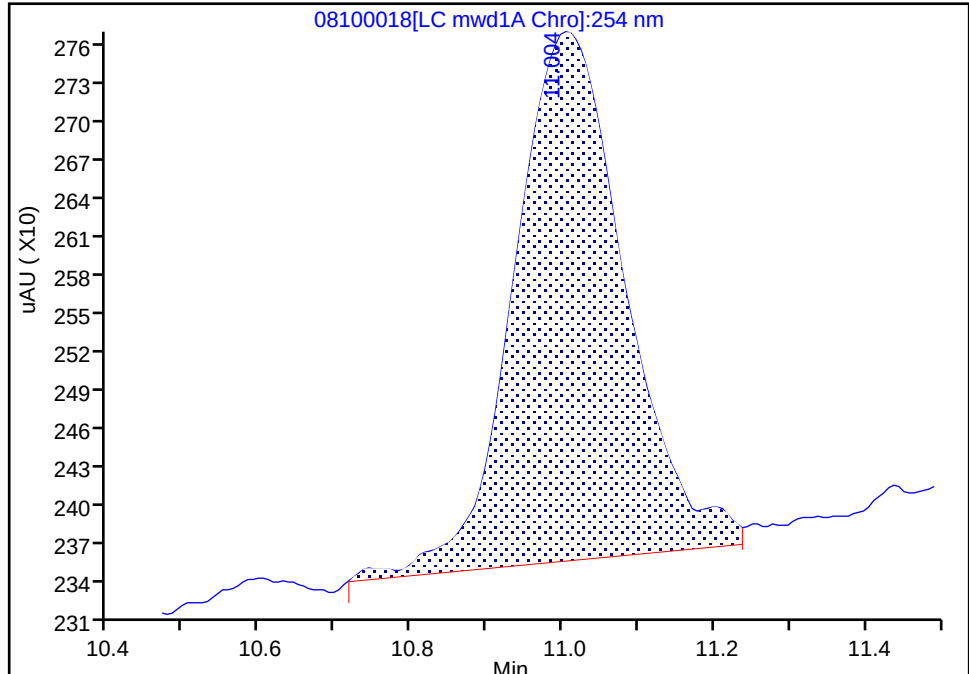
Detector: LC mwd1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

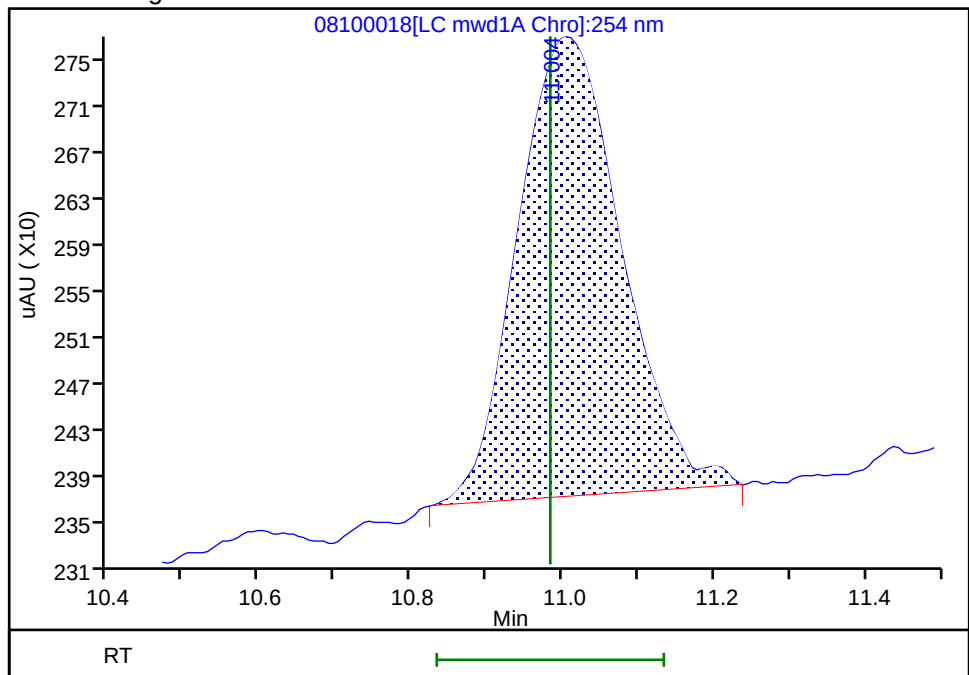
RT: 11.00
Area: 4164
Amount: 0.010915
Amount Units: ug/ml

Processing Integration Results



RT: 11.00
Area: 3755
Amount: 0.009962
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

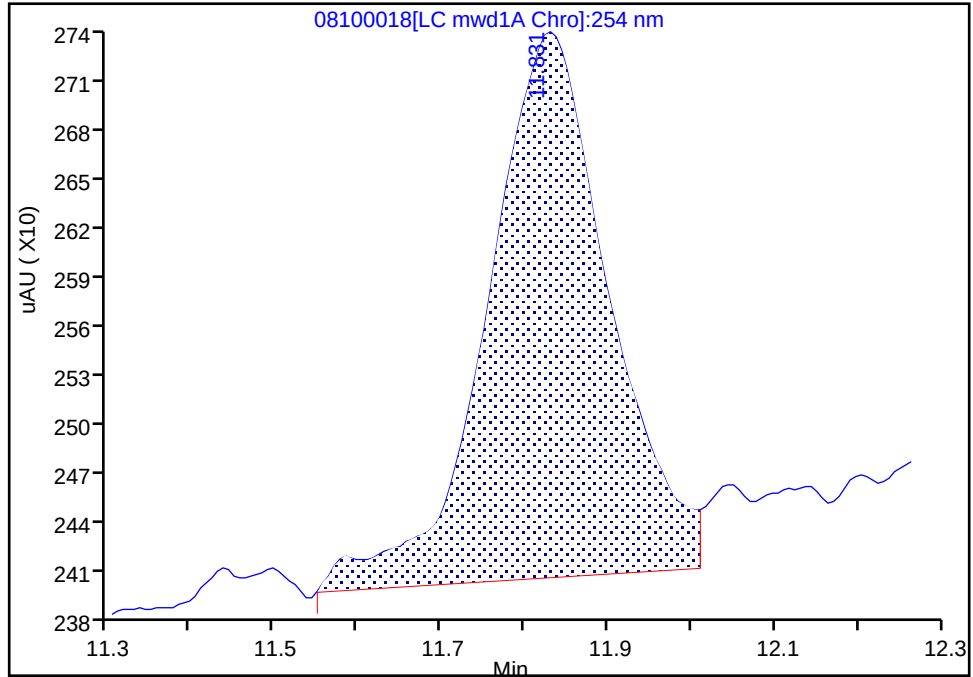
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

\$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

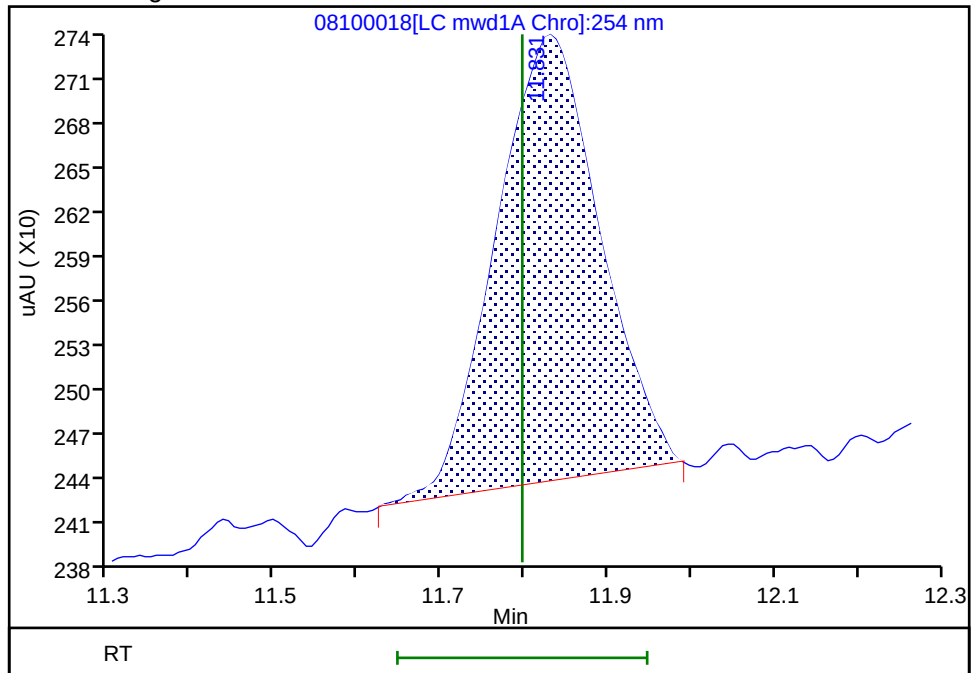
RT: 11.83
Area: 3337
Amount: 0.012321
Amount Units: ug/ml

Processing Integration Results



RT: 11.83
Area: 2585
Amount: 0.009848
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:26 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

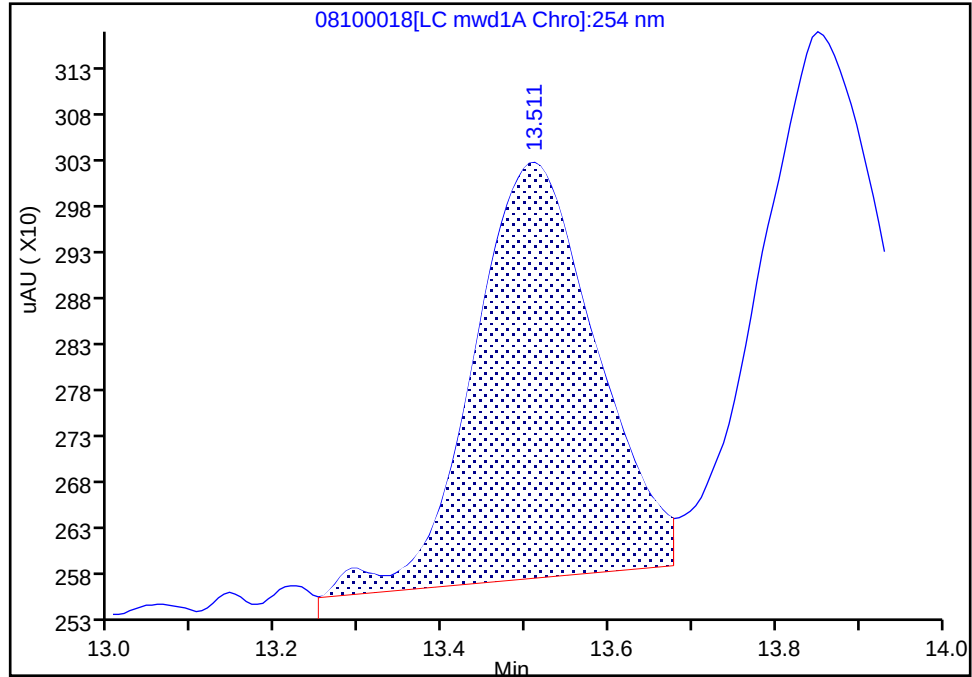
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

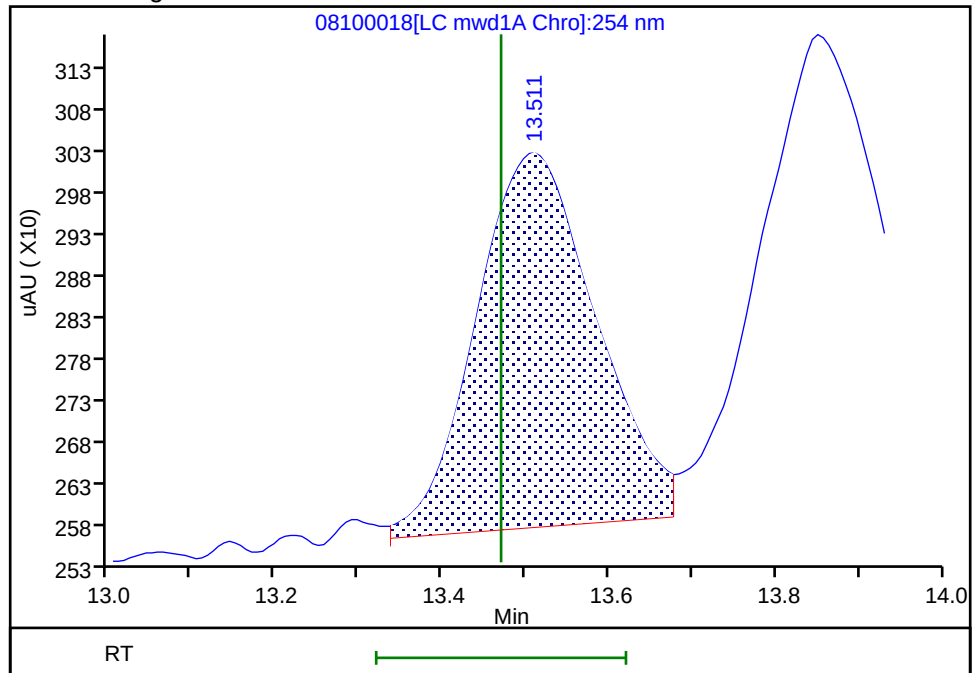
RT: 13.51
Area: 4632
Amount: 0.009921
Amount Units: ug/ml

Processing Integration Results



RT: 13.51
Area: 4508
Amount: 0.009865
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:22 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

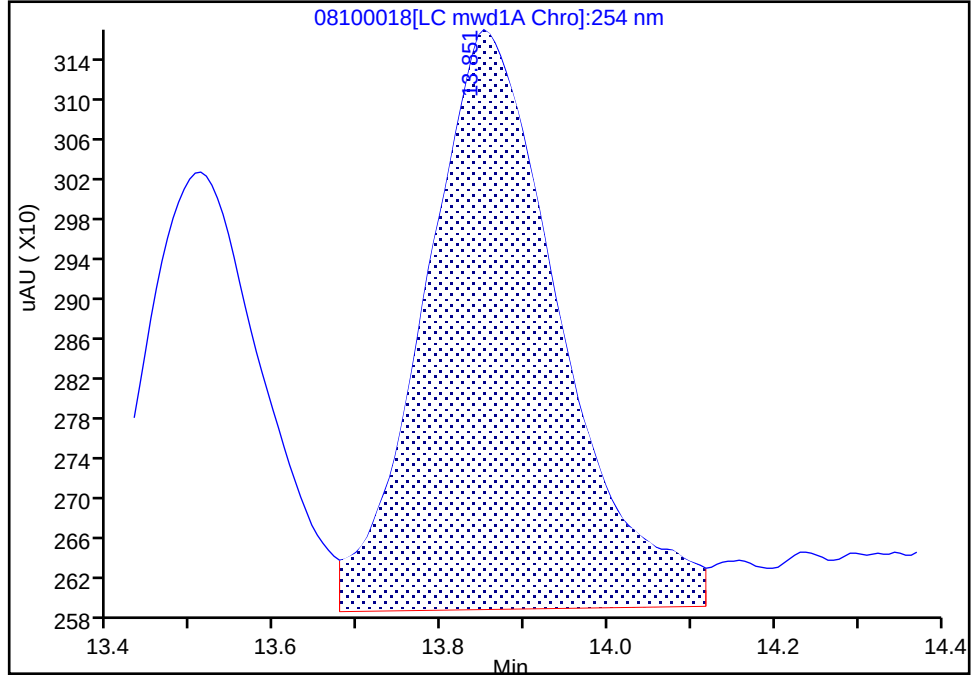
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

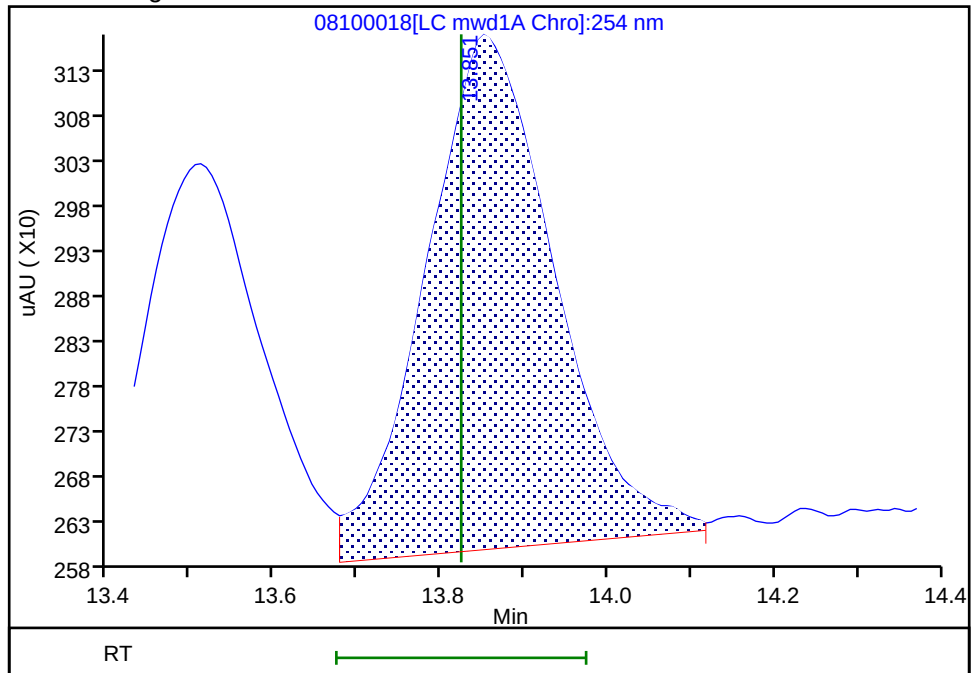
RT: 13.85
Area: 6481
Amount: 0.010986
Amount Units: ug/ml

Processing Integration Results



RT: 13.85
Area: 6059
Amount: 0.010353
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:19 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

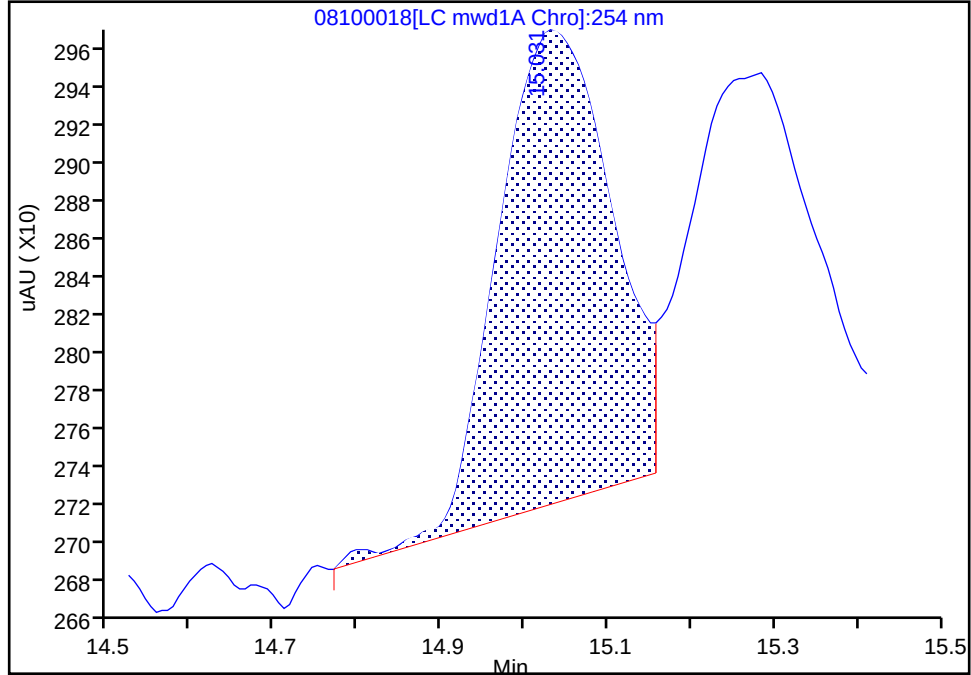
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

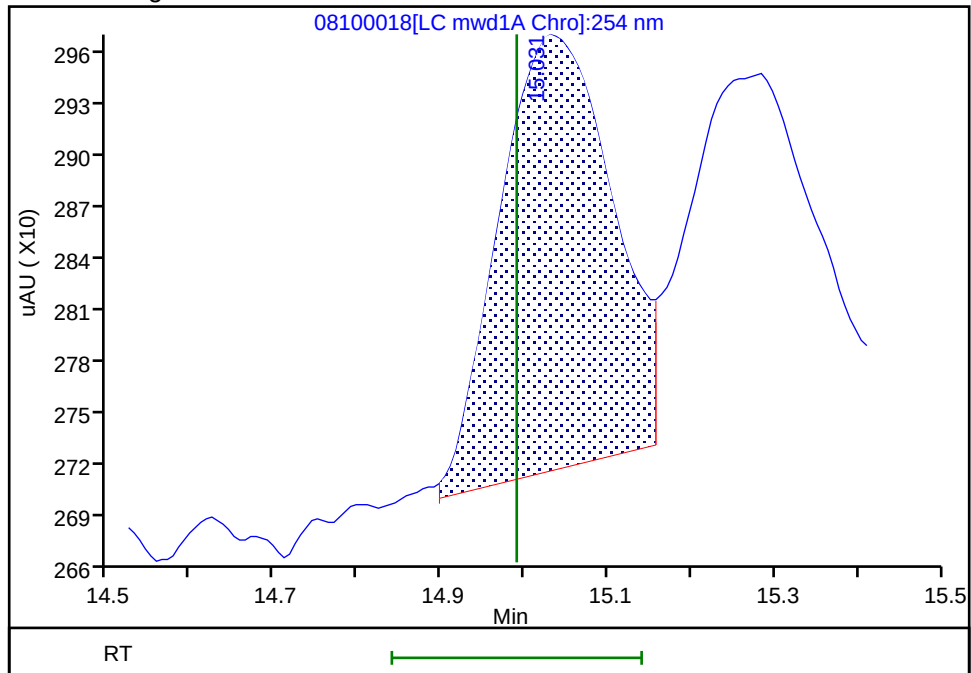
RT: 15.03
Area: 2307
Amount: 0.009796
Amount Units: ug/ml

Processing Integration Results



RT: 15.03
Area: 2340
Amount: 0.009921
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:05 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

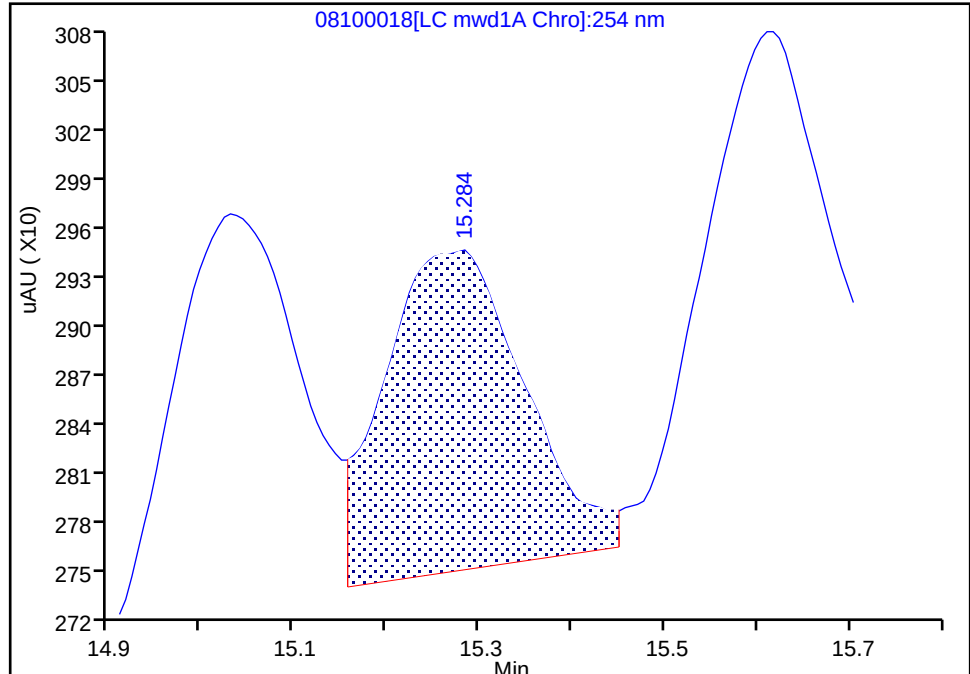
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

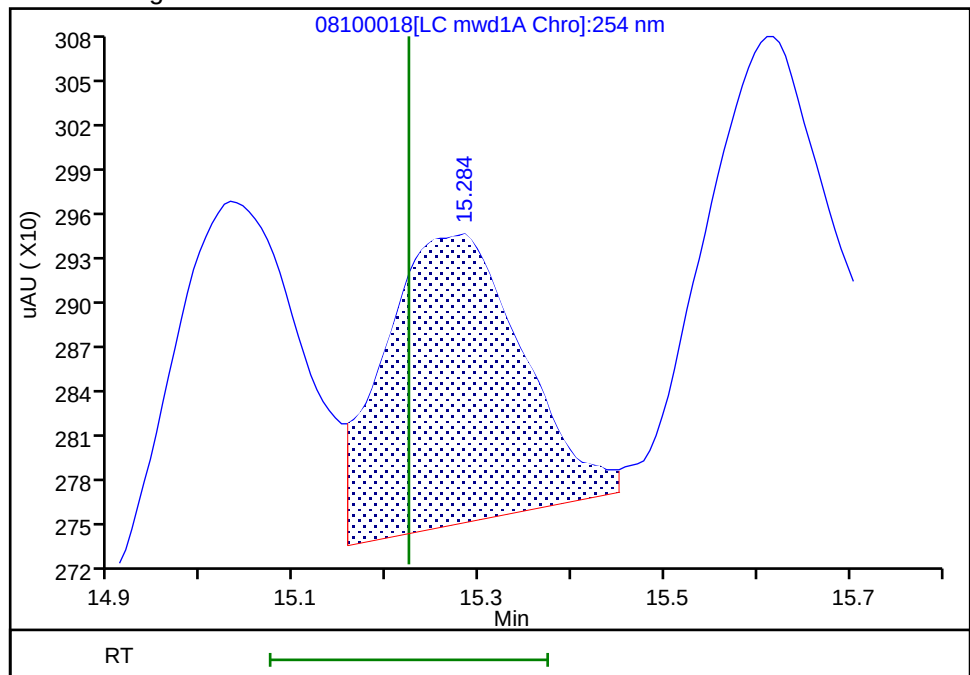
RT: 15.28
Area: 2046
Amount: 0.009661
Amount Units: ug/ml

Processing Integration Results



RT: 15.28
Area: 2037
Amount: 0.009623
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:01 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

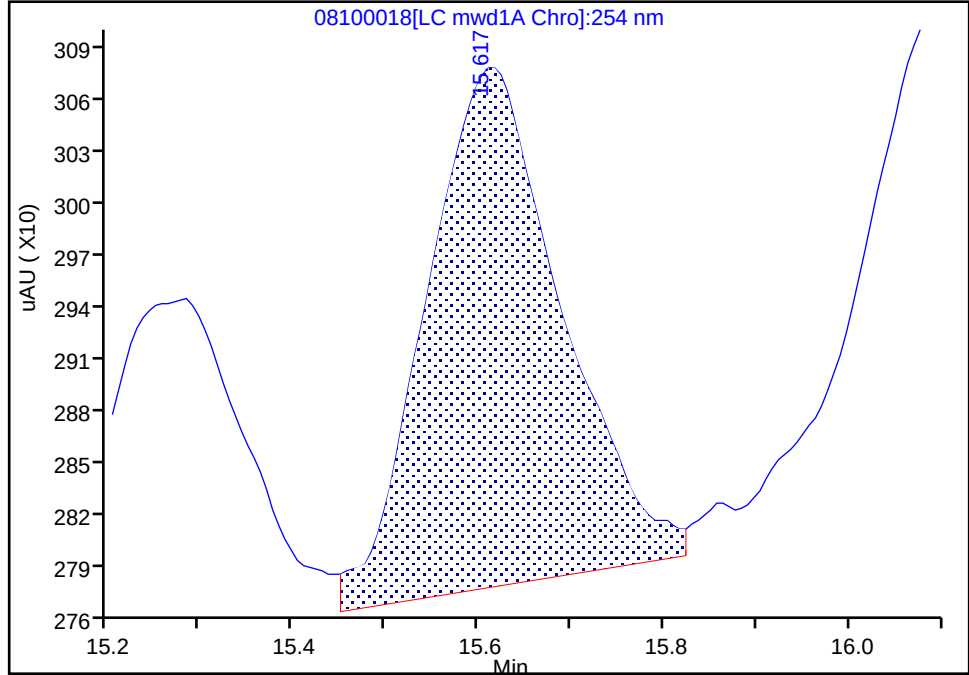
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

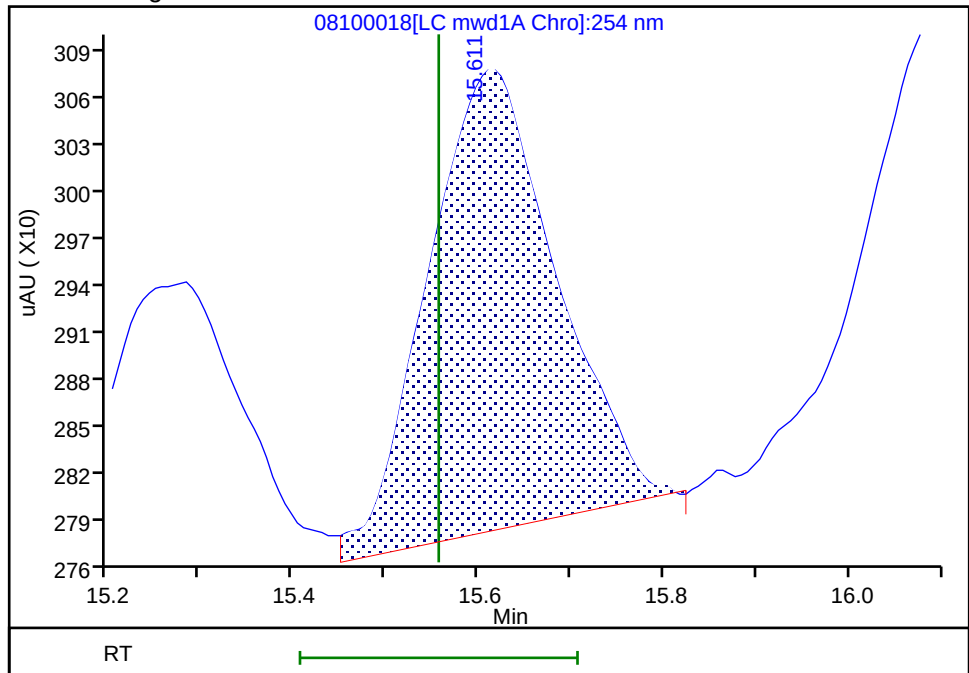
RT: 15.62
Area: 3055
Amount: 0.010228
Amount Units: ug/ml

Processing Integration Results



RT: 15.61
Area: 2787
Amount: 0.010004
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:01 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

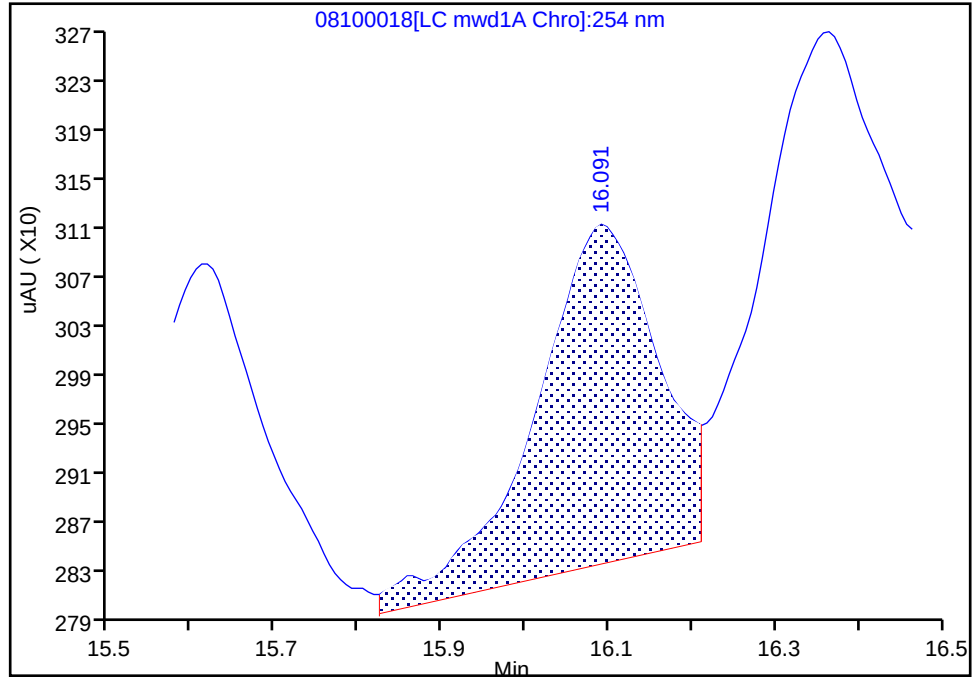
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

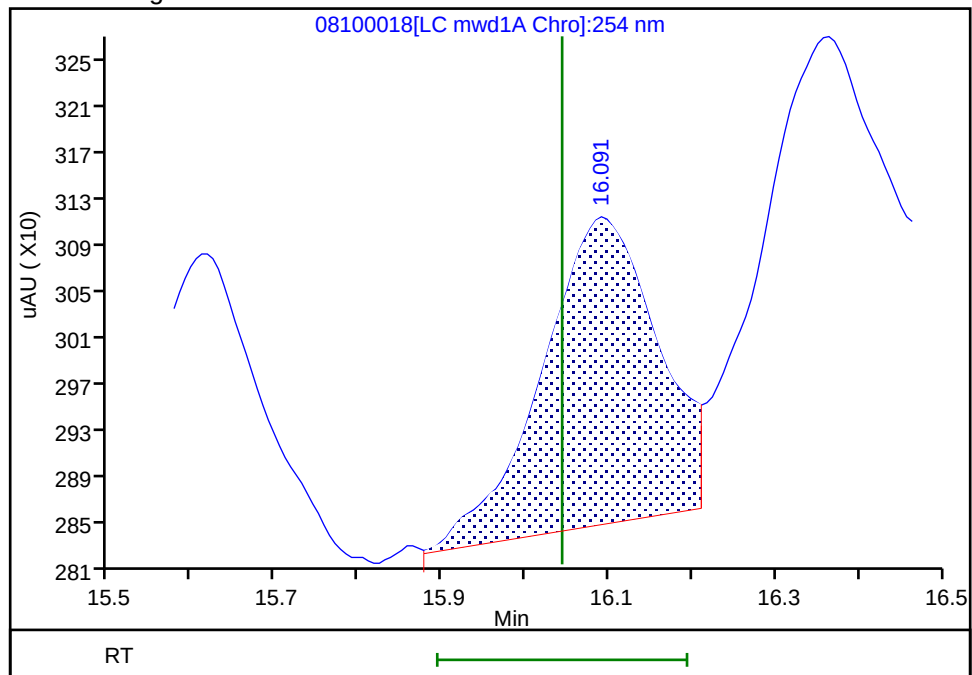
RT: 16.09
Area: 2824
Amount: 0.010807
Amount Units: ug/ml

Processing Integration Results



RT: 16.09
Area: 2547
Amount: 0.009864
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:04 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

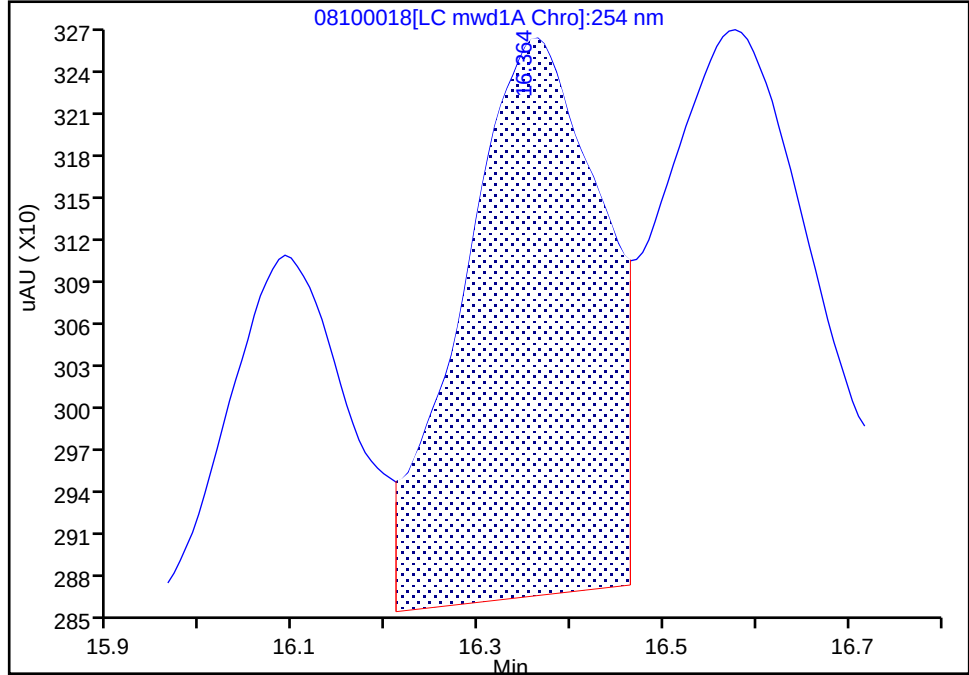
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

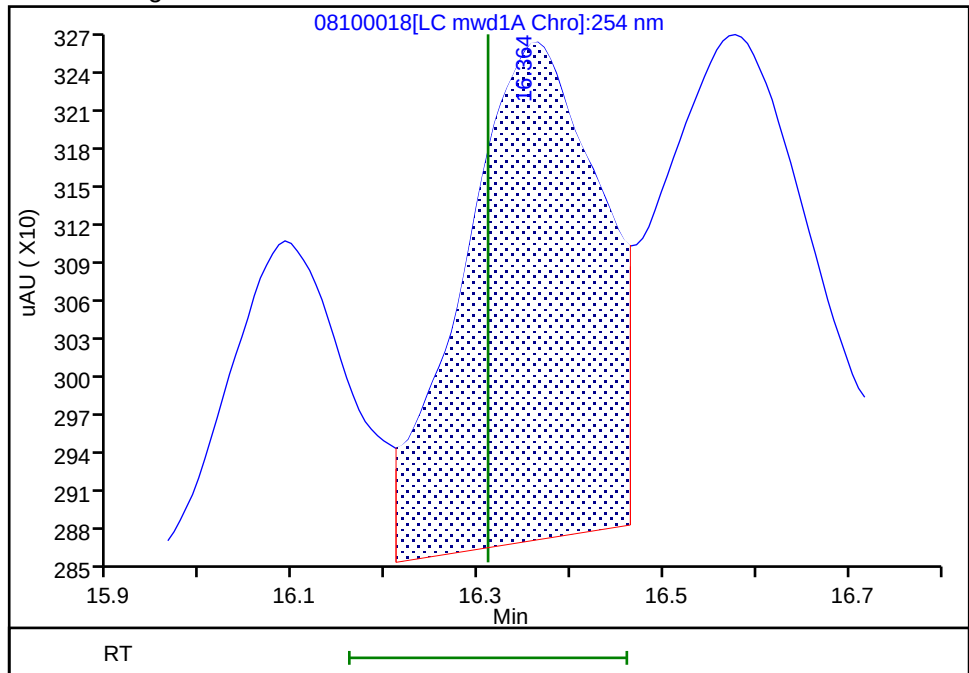
RT: 16.36
Area: 4124
Amount: 0.010545
Amount Units: ug/ml

Processing Integration Results



RT: 16.36
Area: 3972
Amount: 0.010200
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:01 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

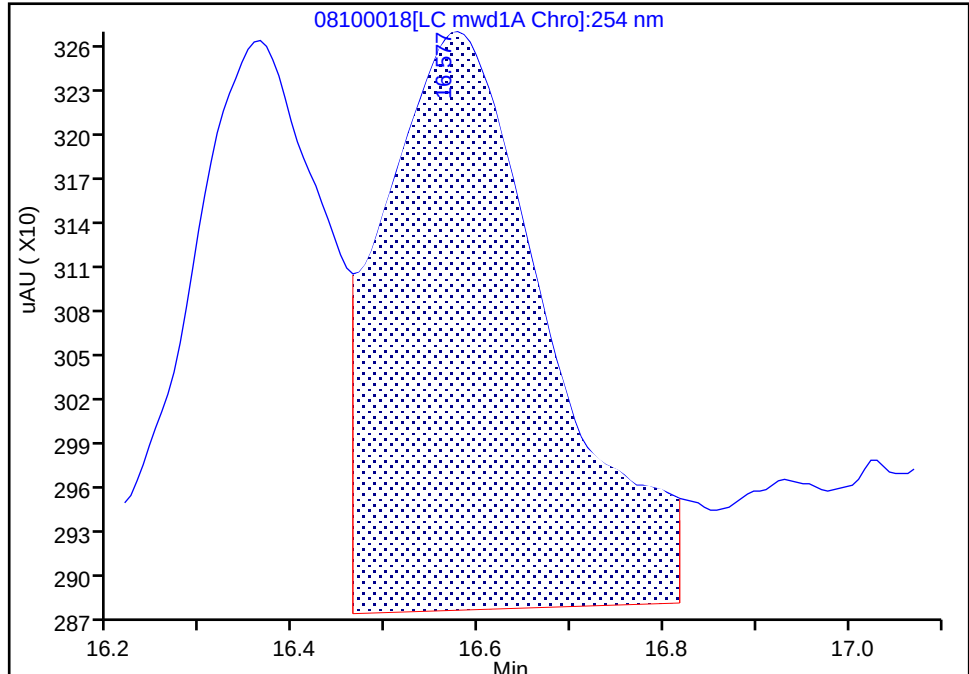
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

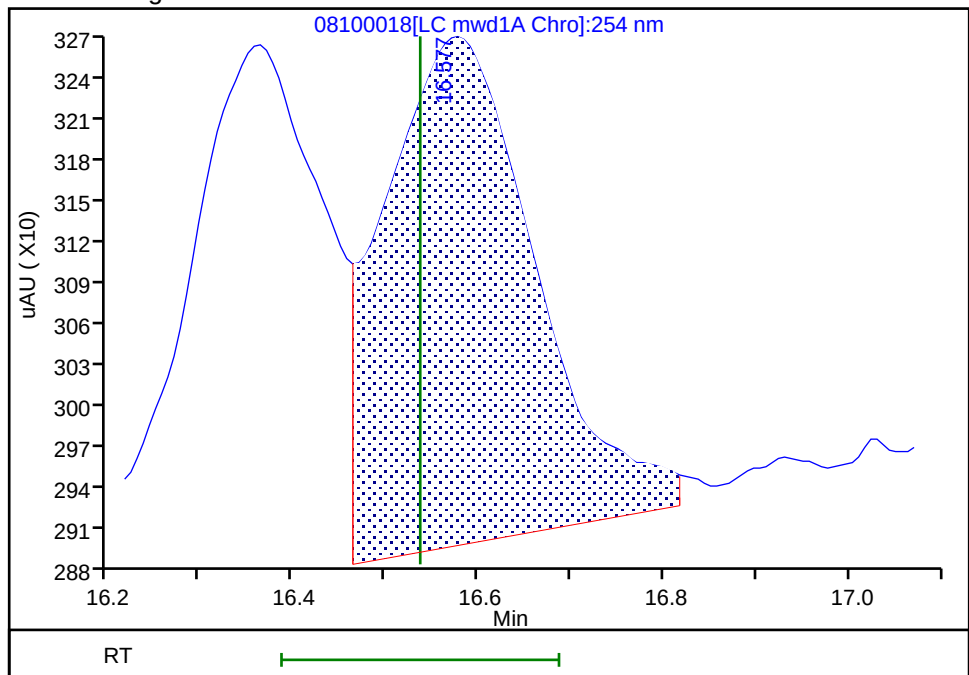
RT: 16.58
Area: 4863
Amount: 0.011274
Amount Units: ug/ml

Processing Integration Results



RT: 16.58
Area: 4185
Amount: 0.009875
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:01 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

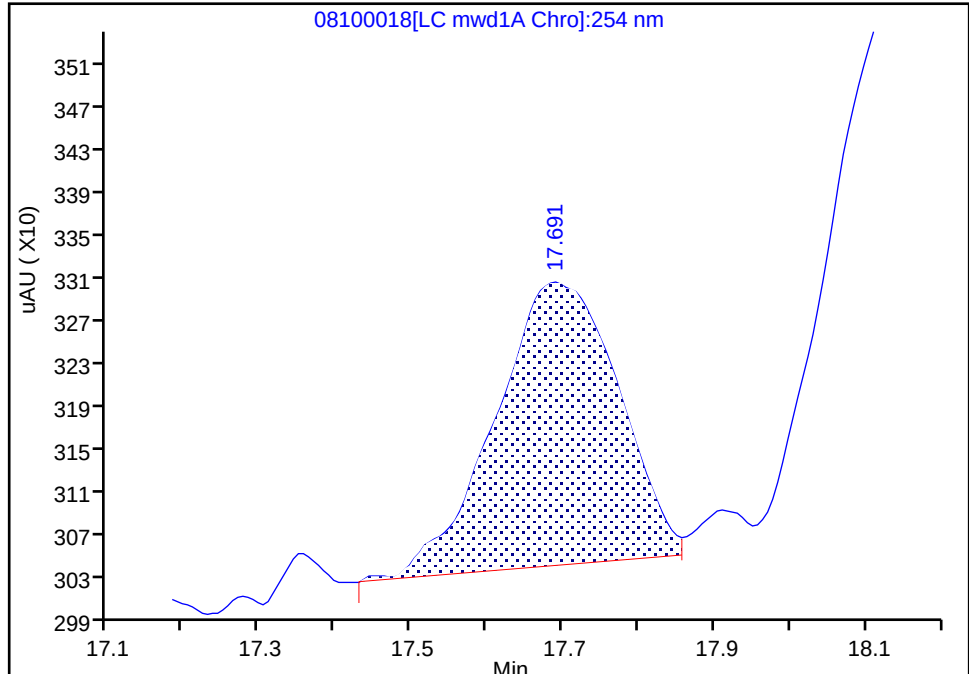
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

21 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

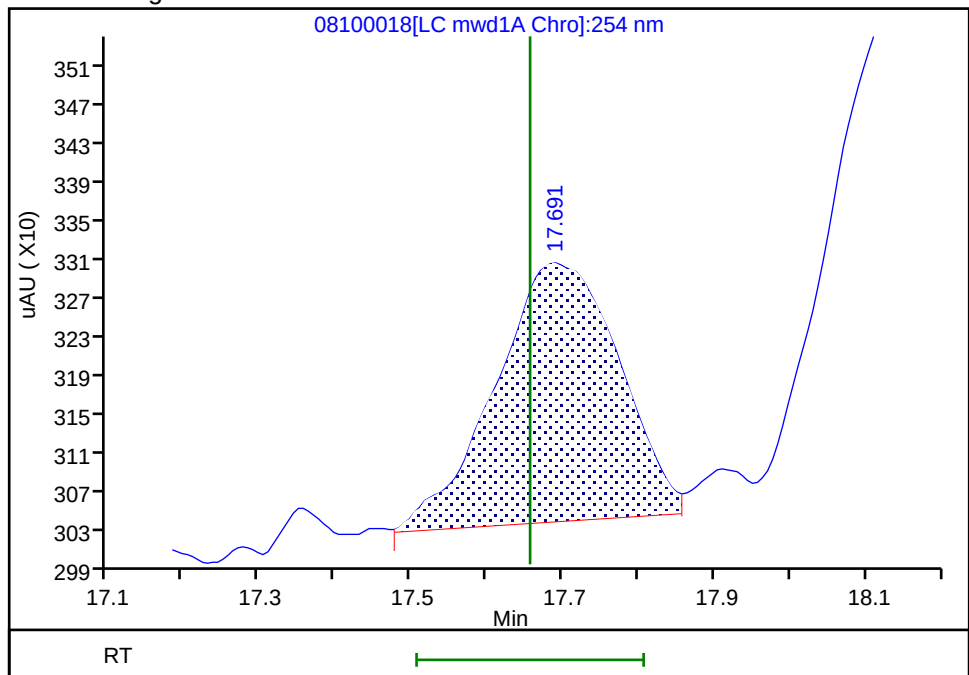
RT: 17.69
Area: 3008
Amount: 0.009700
Amount Units: ug/ml

Processing Integration Results



RT: 17.69
Area: 3065
Amount: 0.010767
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:11 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

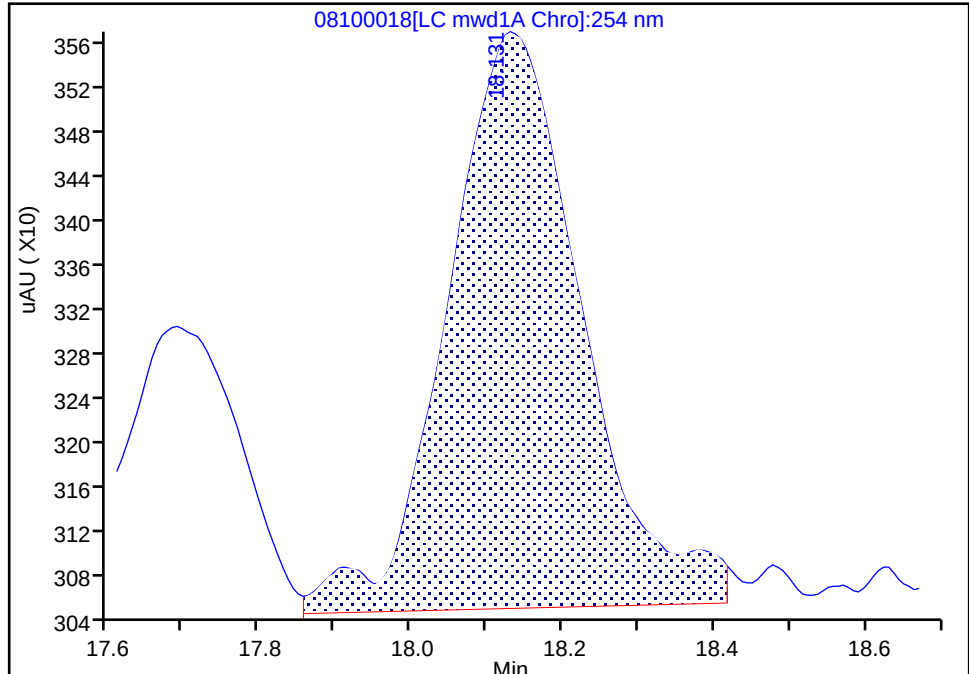
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC mwd1A, 254 nm

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

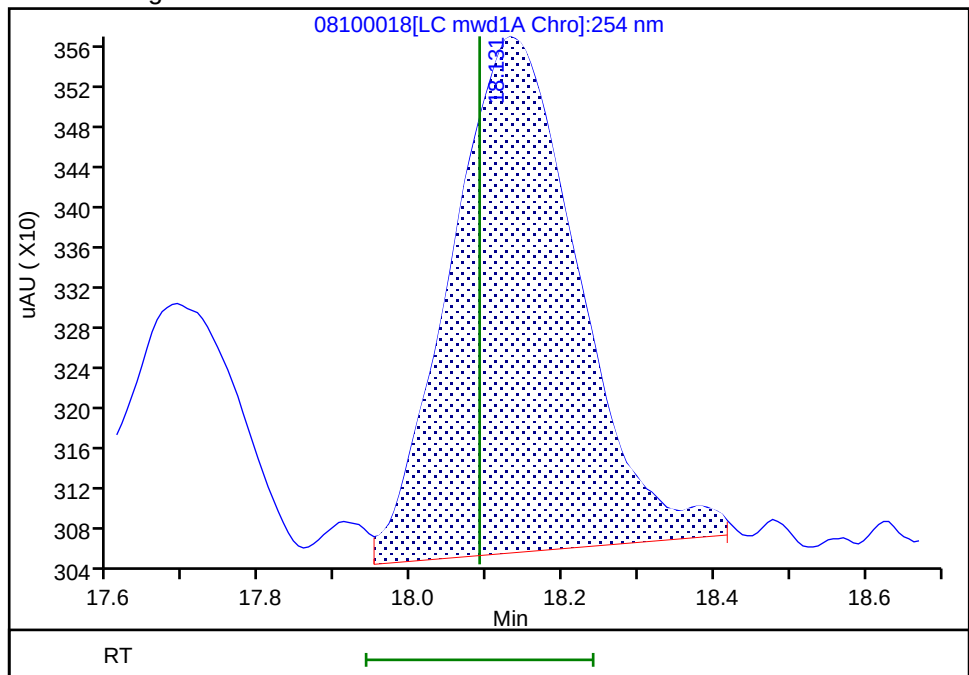
RT: 18.13
Area: 6357
Amount: 0.011091
Amount Units: ug/ml

Processing Integration Results



RT: 18.13
Area: 5939
Amount: 0.010447
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:15:13 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

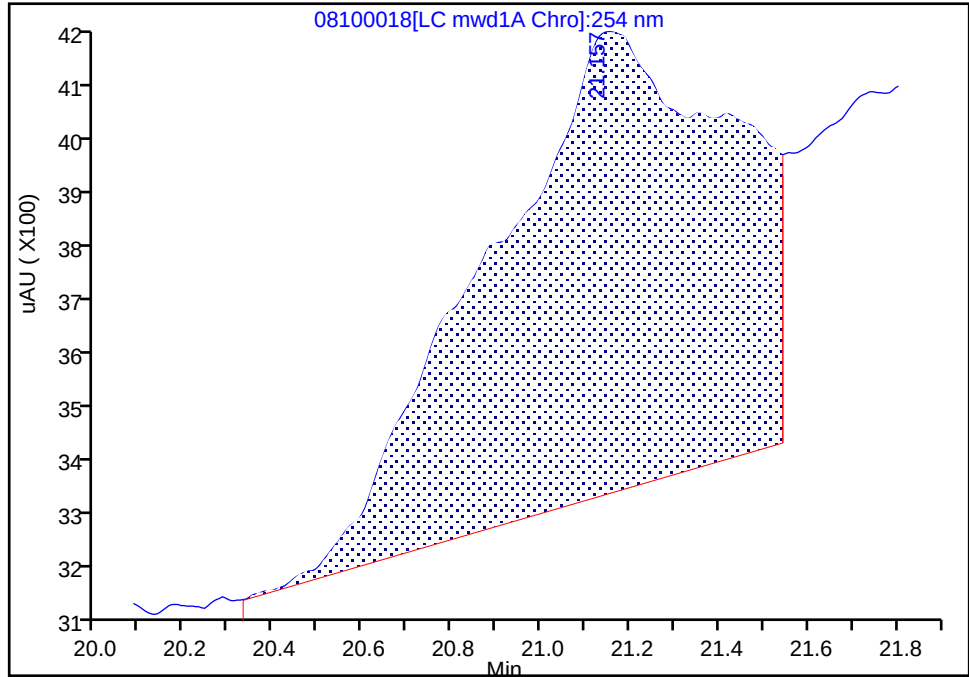
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
Injection Date: 11-Aug-2024 01:01:34 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

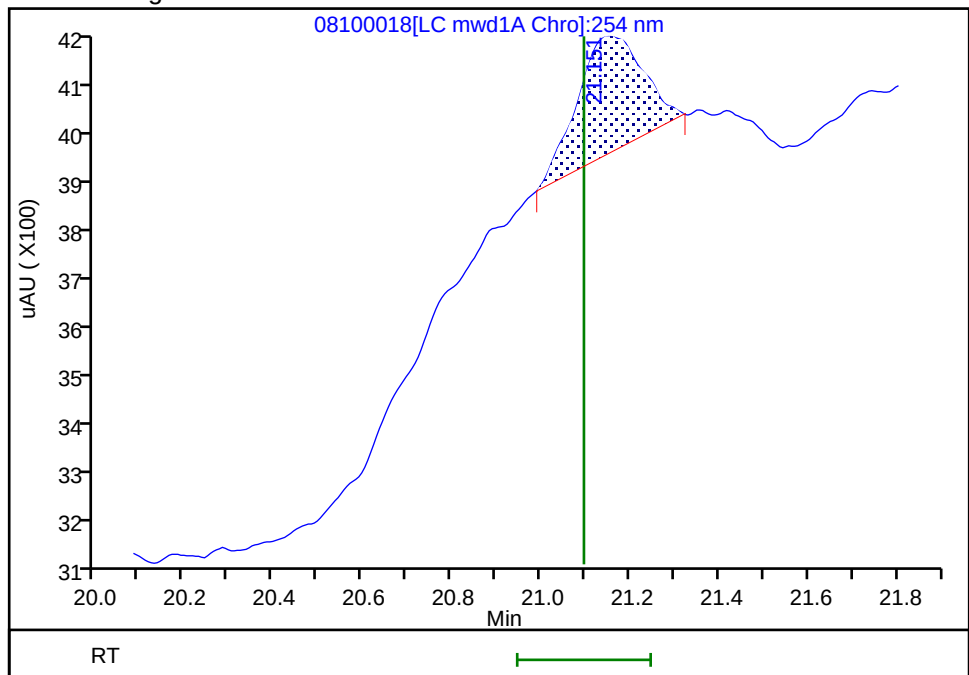
RT: 21.16
Area: 31890
Amount: 0.052229
Amount Units: ug/ml

Processing Integration Results



RT: 21.15
Area: 2430
Amount: 0.008576
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:14:42 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D

Injection Date: 11-Aug-2024 01:01:34

Instrument ID: CHHPLC_X5

Lims ID: IC INT 1

Client ID:

Operator ID: JZ

ALS Bottle#:

18

Worklist Smp#: 18

Injection Vol: 100.0 ul

Dil. Factor:

1.0000

Method: 8330_X5_Luna

Limit Group:

GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm)

Detector

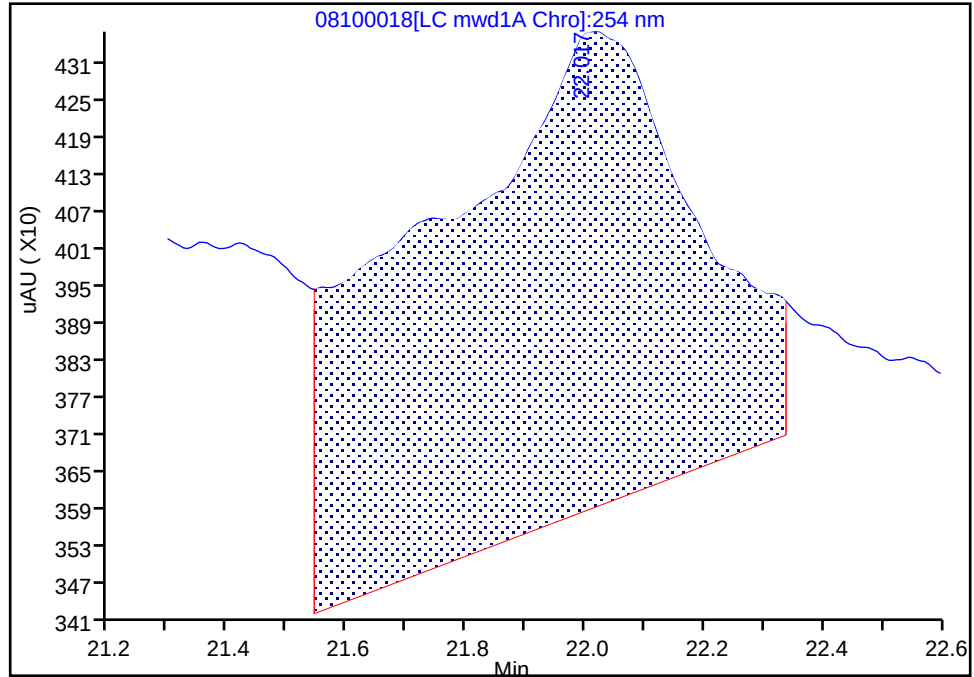
LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

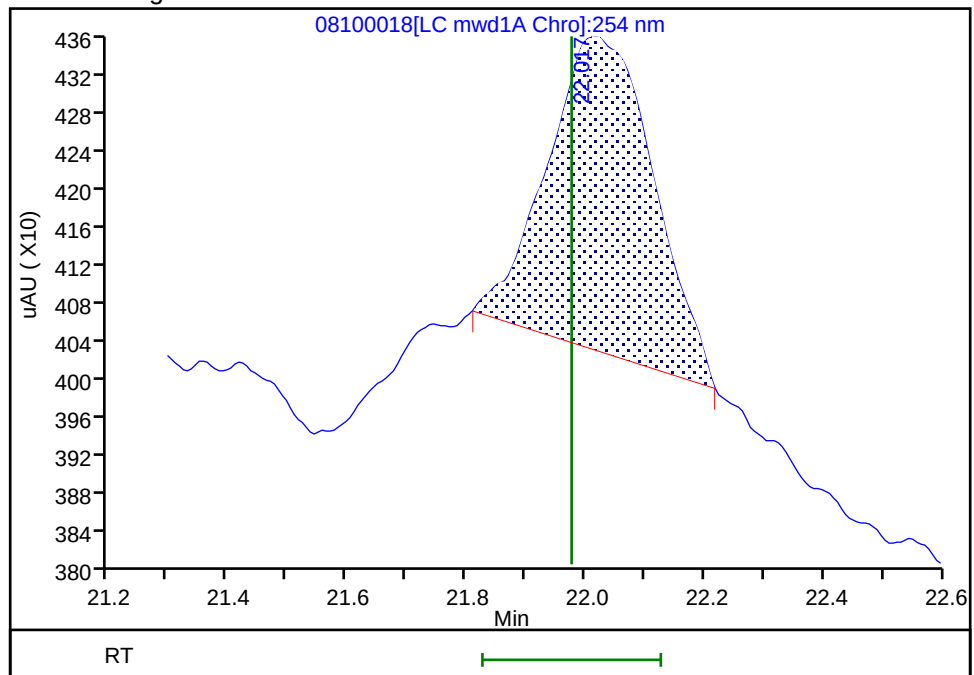
RT: 22.02
Area: 25478
Amount: 0.025910
Amount Units: ug/ml

Processing Integration Results



RT: 22.02
Area: 4082
Amount: 0.009807
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:14:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Calibration

/ HMX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

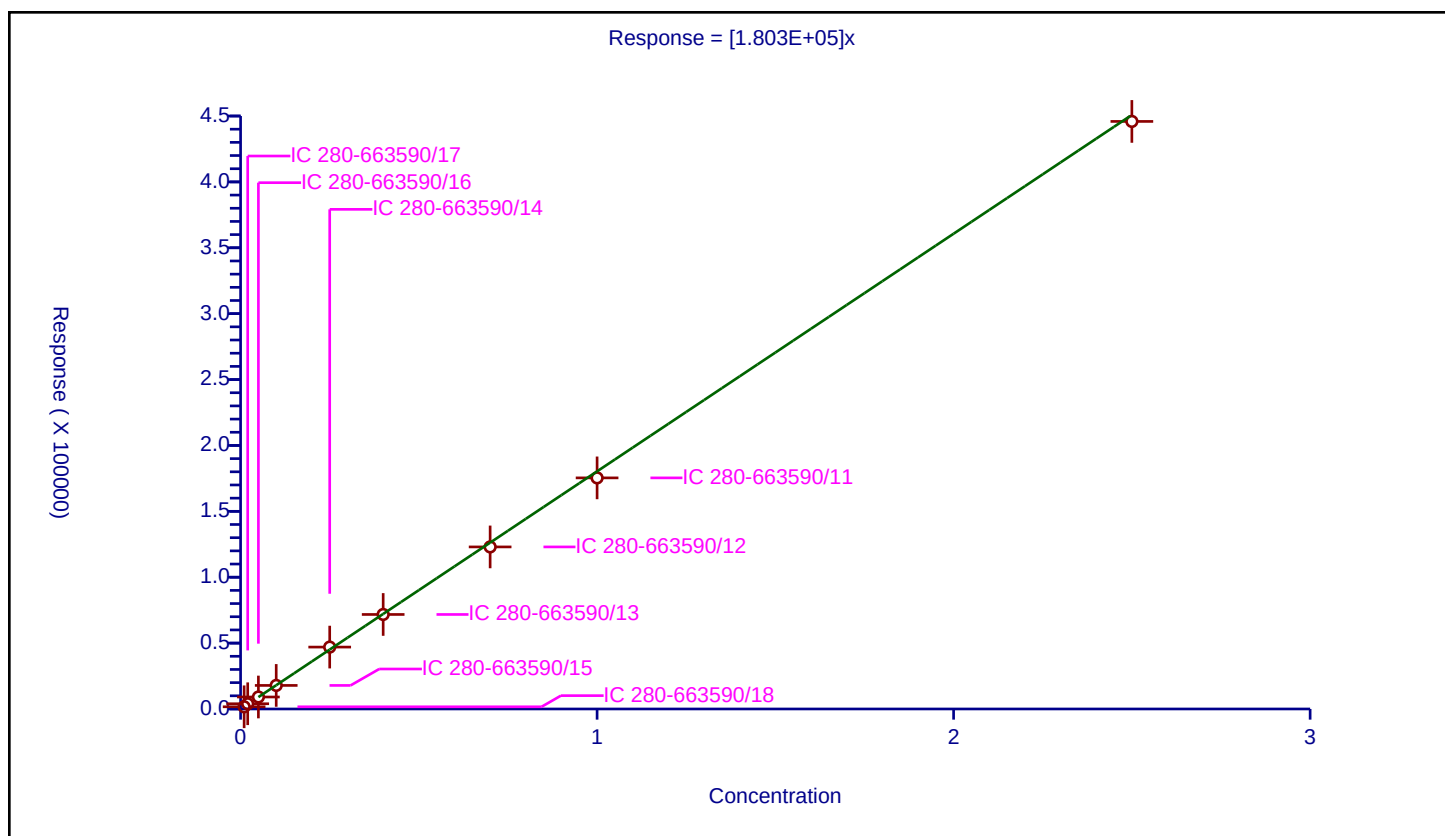
Curve Coefficients

Intercept: 0
 Slope: 1.803E+05

Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	1671.0			167100.0	Y
2	IC 280-663590/17	0.02	3967.0			198350.0	Y
3	IC 280-663590/16	0.05	9102.0			182040.0	Y
4	IC 280-663590/15	0.1	17888.0			178880.0	Y
5	IC 280-663590/14	0.25	46973.0			187892.0	Y
6	IC 280-663590/13	0.4	71733.0			179332.5	Y
7	IC 280-663590/12	0.7	122999.0			175712.857143	Y
8	IC 280-663590/11	1.0	175376.0			175376.0	Y
9	IC 280-663590/10	2.5	445898.0			178359.2	Y



Calibration

/ 2,4,6-Trinitrophenol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

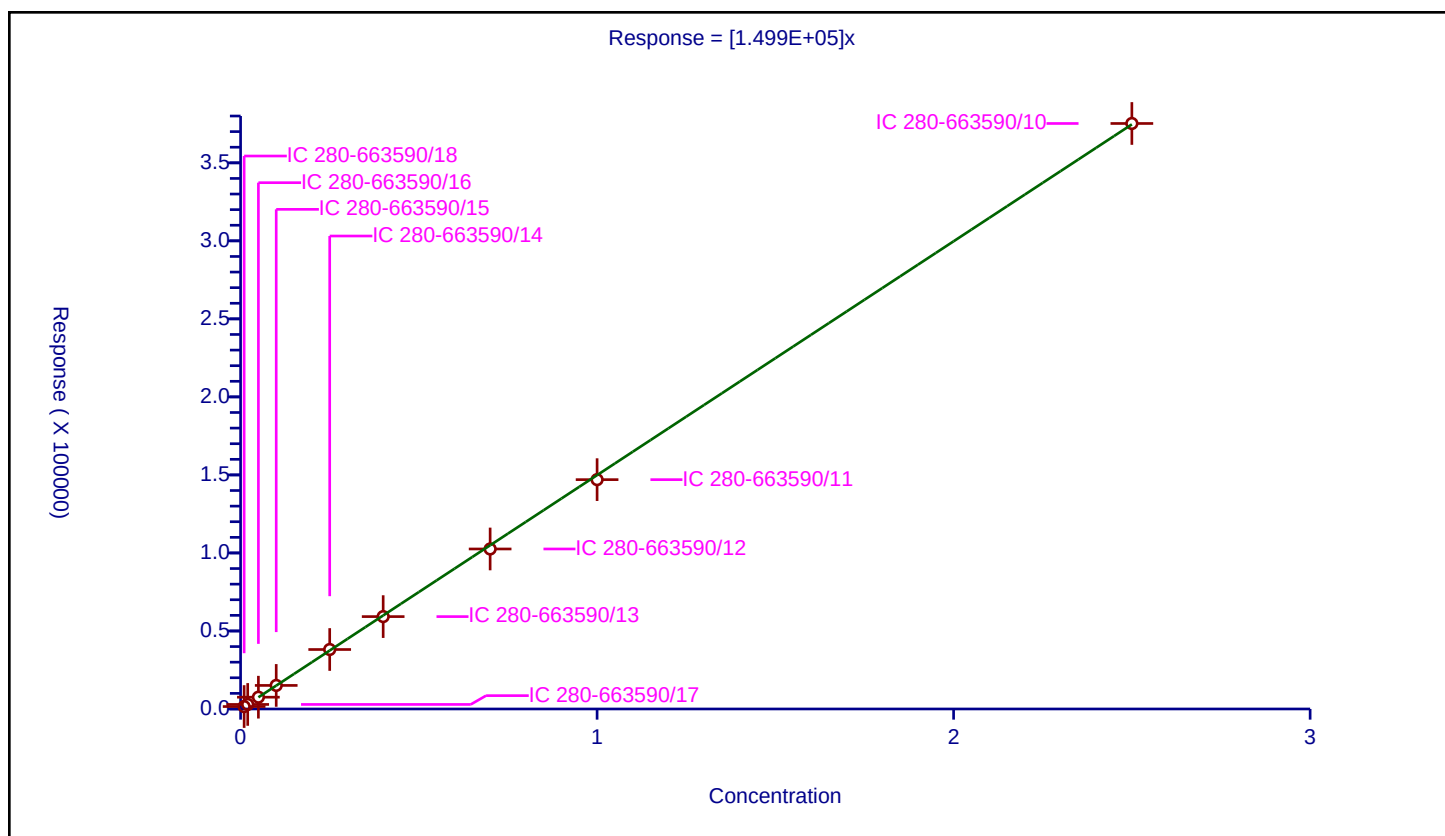
Curve Coefficients

Intercept: 0
Slope: 1.499E+05

Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	1564.0			156400.0	Y
2	IC 280-663590/17	0.02	2918.0			145900.0	Y
3	IC 280-663590/16	0.05	7567.0			151340.0	Y
4	IC 280-663590/15	0.1	15103.0			151030.0	Y
5	IC 280-663590/14	0.25	38121.0			152484.0	Y
6	IC 280-663590/13	0.4	59211.0			148027.5	Y
7	IC 280-663590/12	0.7	102542.0			146488.571429	Y
8	IC 280-663590/11	1.0	146979.0			146979.0	Y
9	IC 280-663590/10	2.5	375214.0			150085.6	Y



Calibration

/ RDX

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

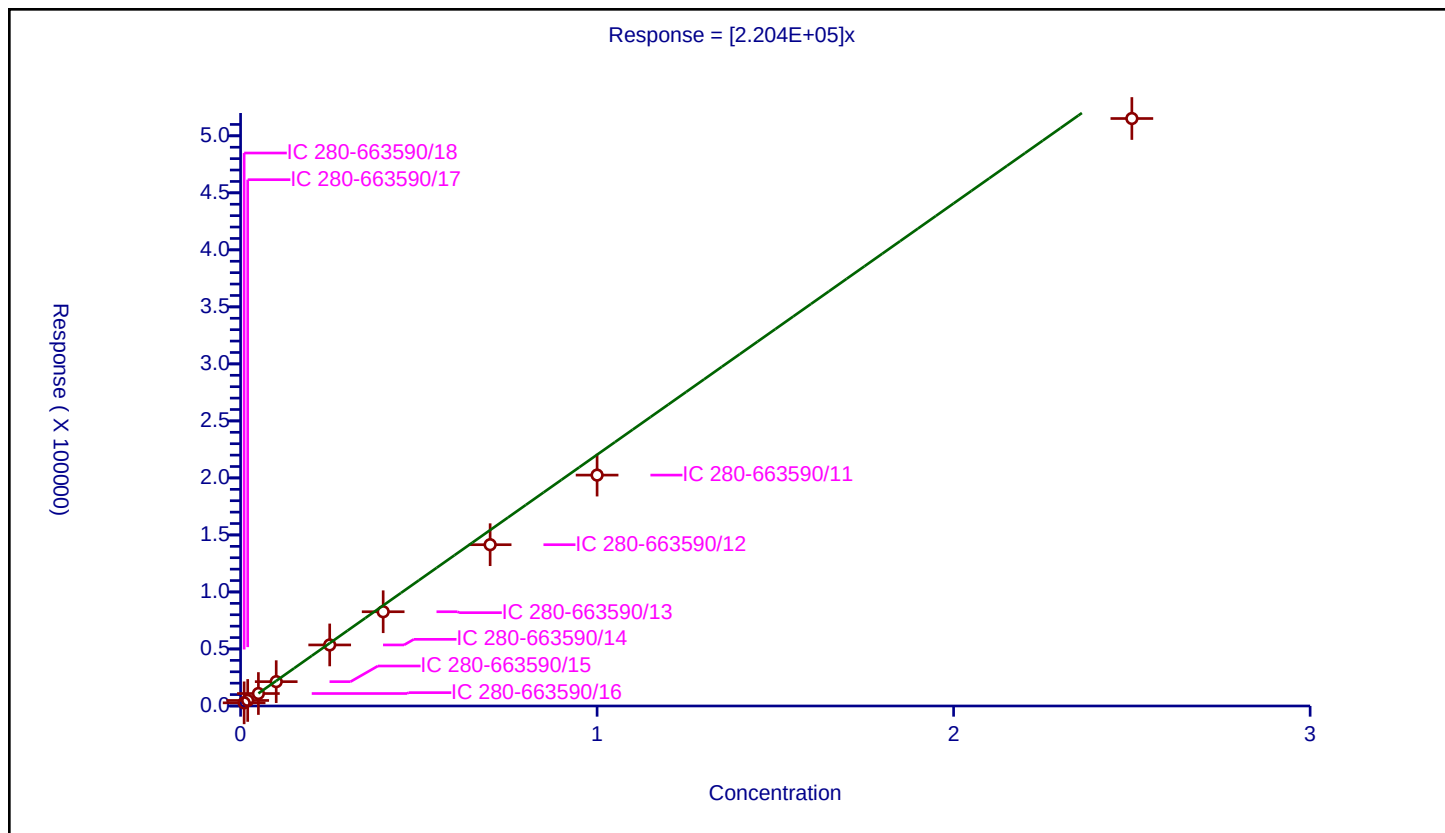
Curve Coefficients

Intercept: 0
Slope: 2.204E+05

Error Coefficients

Relative Standard Deviation: 11.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2773.0			277300.0	Y
2	IC 280-663590/17	0.02	4852.0			242600.0	Y
3	IC 280-663590/16	0.05	10927.0			218540.0	Y
4	IC 280-663590/15	0.1	21335.0			213350.0	Y
5	IC 280-663590/14	0.25	53547.0			214188.0	Y
6	IC 280-663590/13	0.4	82649.0			206622.5	Y
7	IC 280-663590/12	0.7	141434.0			202048.571429	Y
8	IC 280-663590/11	1.0	202487.0			202487.0	Y
9	IC 280-663590/10	2.5	515189.0			206075.6	Y



Calibration

/ Nitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

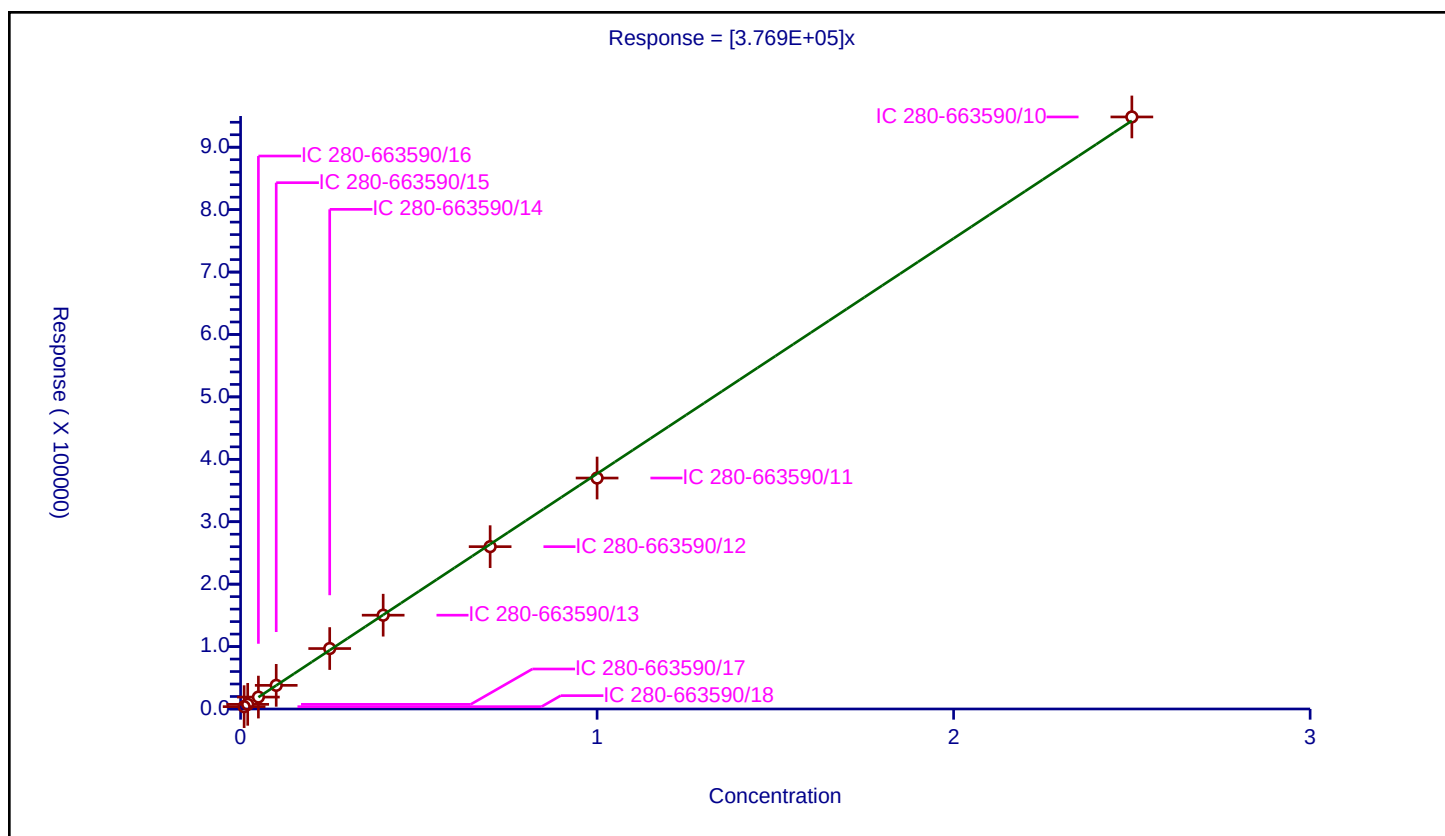
Curve Coefficients

Intercept: 0
Slope: 3.769E+05

Error Coefficients

Relative Standard Deviation: 1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	3755.0			375500.0	Y
2	IC 280-663590/17	0.02	7452.0			372600.0	Y
3	IC 280-663590/16	0.05	19091.0			381820.0	Y
4	IC 280-663590/15	0.1	37856.0			378560.0	Y
5	IC 280-663590/14	0.25	96842.0			387368.0	Y
6	IC 280-663590/13	0.4	150269.0			375672.5	Y
7	IC 280-663590/12	0.7	260064.0			371520.0	Y
8	IC 280-663590/11	1.0	369980.0			369980.0	Y
9	IC 280-663590/10	2.5	948495.0			379398.0	Y



Calibration

/ 1,2-Dinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

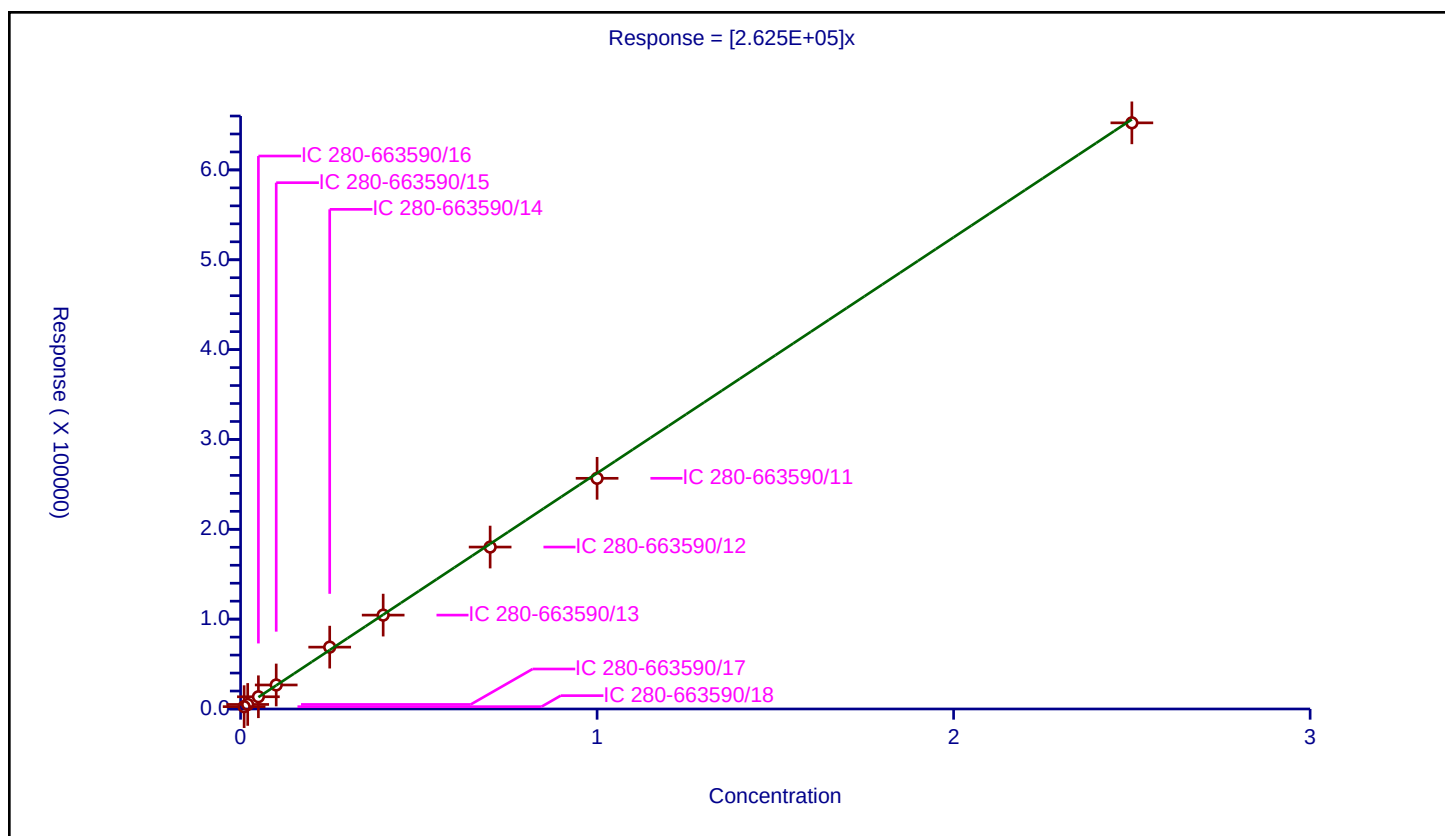
Curve Coefficients

Intercept: 0
Slope: 2.625E+05

Error Coefficients

Relative Standard Deviation: 2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2585.0			258500.0	Y
2	IC 280-663590/17	0.02	5053.0			252650.0	Y
3	IC 280-663590/16	0.05	13605.0			272100.0	Y
4	IC 280-663590/15	0.1	26738.0			267380.0	Y
5	IC 280-663590/14	0.25	68837.0			275348.0	Y
6	IC 280-663590/13	0.4	104490.0			261225.0	Y
7	IC 280-663590/12	0.7	180233.0			257475.714286	Y
8	IC 280-663590/11	1.0	256759.0			256759.0	Y
9	IC 280-663590/10	2.5	652397.0			260958.8	Y



Calibration

/ 3,5-Dinitroaniline

Curve Type: Linear
Weighting: Conc_Sq
Origin: None
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

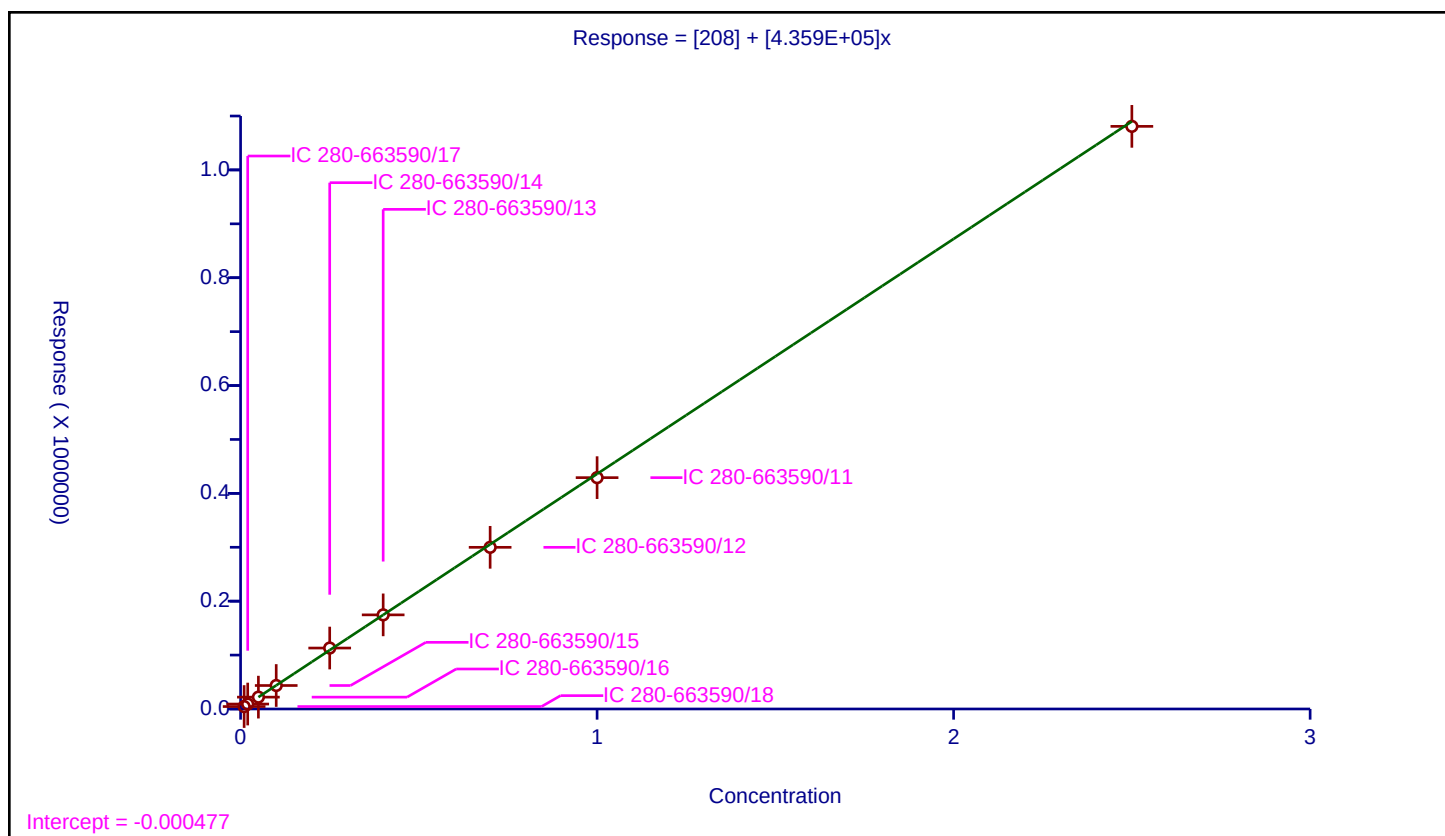
Curve Coefficients

Intercept: 208
Slope: 4.359E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	4508.0			450800.0	Y
2	IC 280-663590/17	0.02	9158.0			457900.0	Y
3	IC 280-663590/16	0.05	21976.0			439520.0	Y
4	IC 280-663590/15	0.1	43566.0			435660.0	Y
5	IC 280-663590/14	0.25	113048.0			452192.0	Y
6	IC 280-663590/13	0.4	174587.0			436467.5	Y
7	IC 280-663590/12	0.7	299884.0			428405.714286	Y
8	IC 280-663590/11	1.0	429142.0			429142.0	Y
9	IC 280-663590/10	2.5	1080802.0			432320.8	Y



Calibration

/ 1,3-Dinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

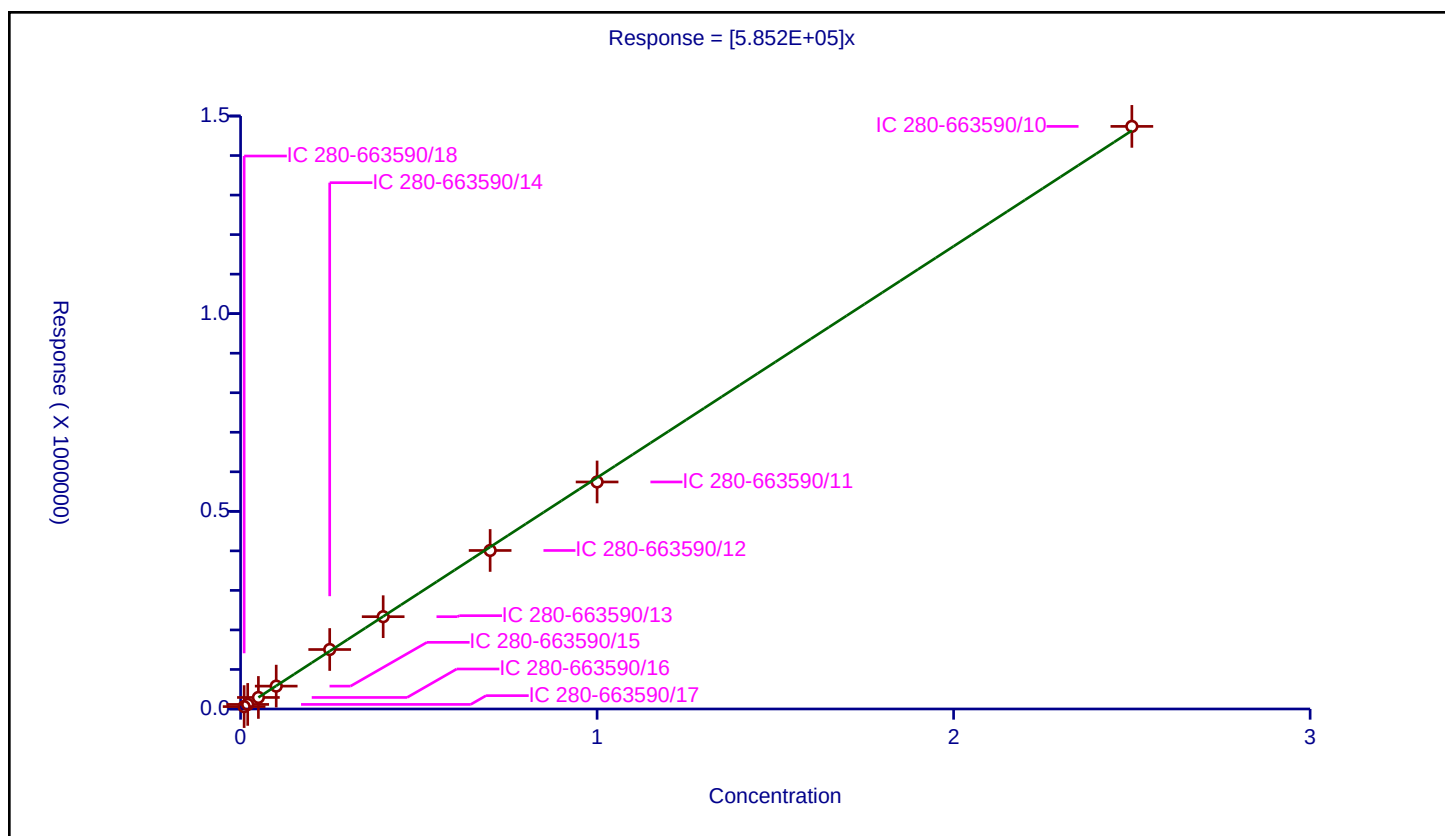
Curve Coefficients

Intercept: 0
Slope: 5.852E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	6059.0			605900.0	Y
2	IC 280-663590/17	0.02	11541.0			577050.0	Y
3	IC 280-663590/16	0.05	29180.0			583600.0	Y
4	IC 280-663590/15	0.1	57831.0			578310.0	Y
5	IC 280-663590/14	0.25	150469.0			601876.0	Y
6	IC 280-663590/13	0.4	233512.0			583780.0	Y
7	IC 280-663590/12	0.7	401028.0			572897.142857	Y
8	IC 280-663590/11	1.0	574265.0			574265.0	Y
9	IC 280-663590/10	2.5	1473755.0			589502.0	Y



Calibration

/ Nitroglycerin

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

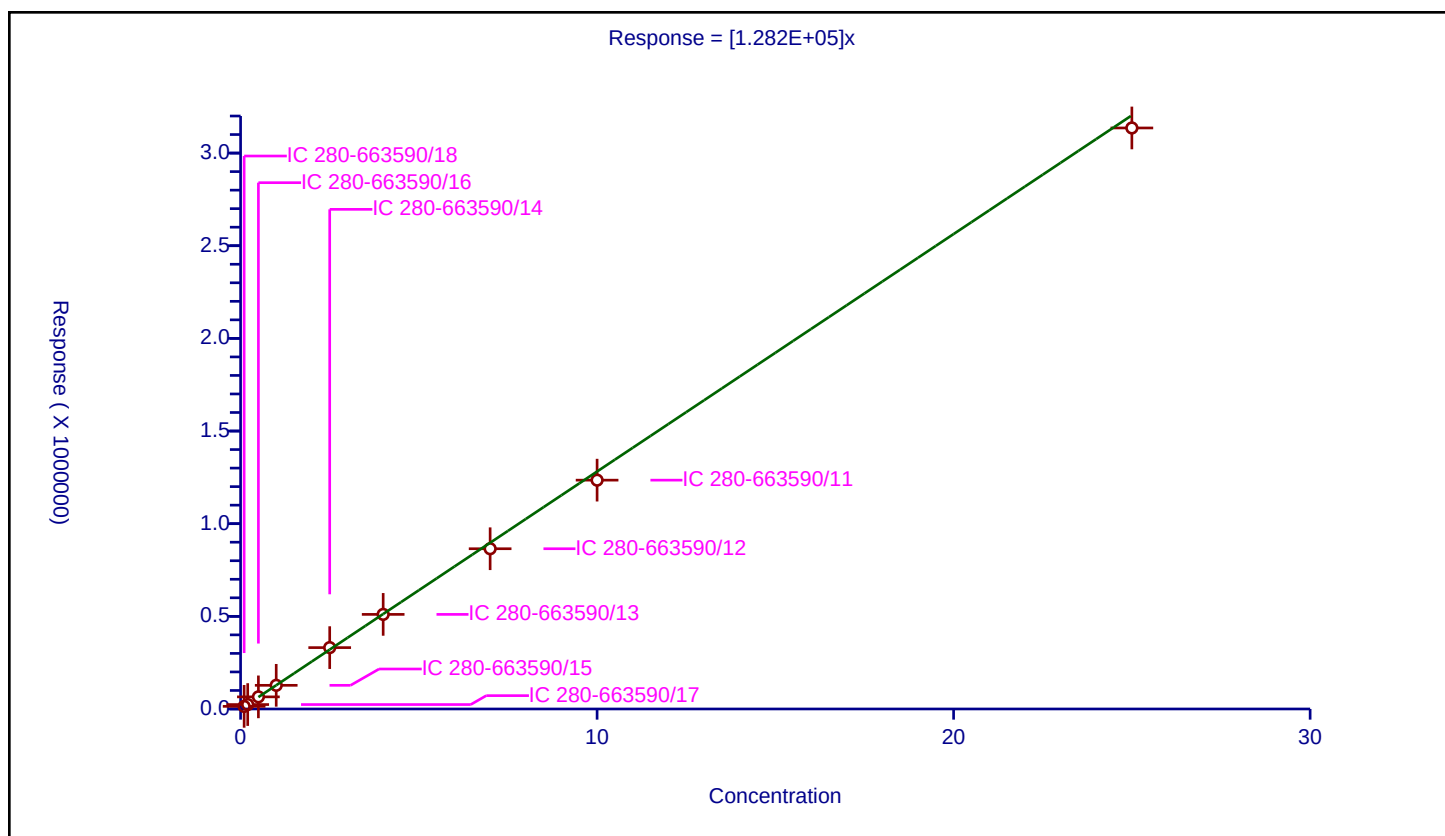
Curve Coefficients

Intercept: 0
Slope: 1.282E+05

Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.1	14206.0			142060.0	Y
2	IC 280-663590/17	0.2	24016.0			120080.0	Y
3	IC 280-663590/16	0.5	65475.0			130950.0	Y
4	IC 280-663590/15	1.0	127672.0			127672.0	Y
5	IC 280-663590/14	2.5	331233.0			132493.2	Y
6	IC 280-663590/13	4.0	510574.0			127643.5	Y
7	IC 280-663590/12	7.0	864867.0			123552.428571	Y
8	IC 280-663590/11	10.0	1234967.0			123496.7	Y
9	IC 280-663590/10	25.0	3135554.0			125422.16	Y



Calibration

/ o-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

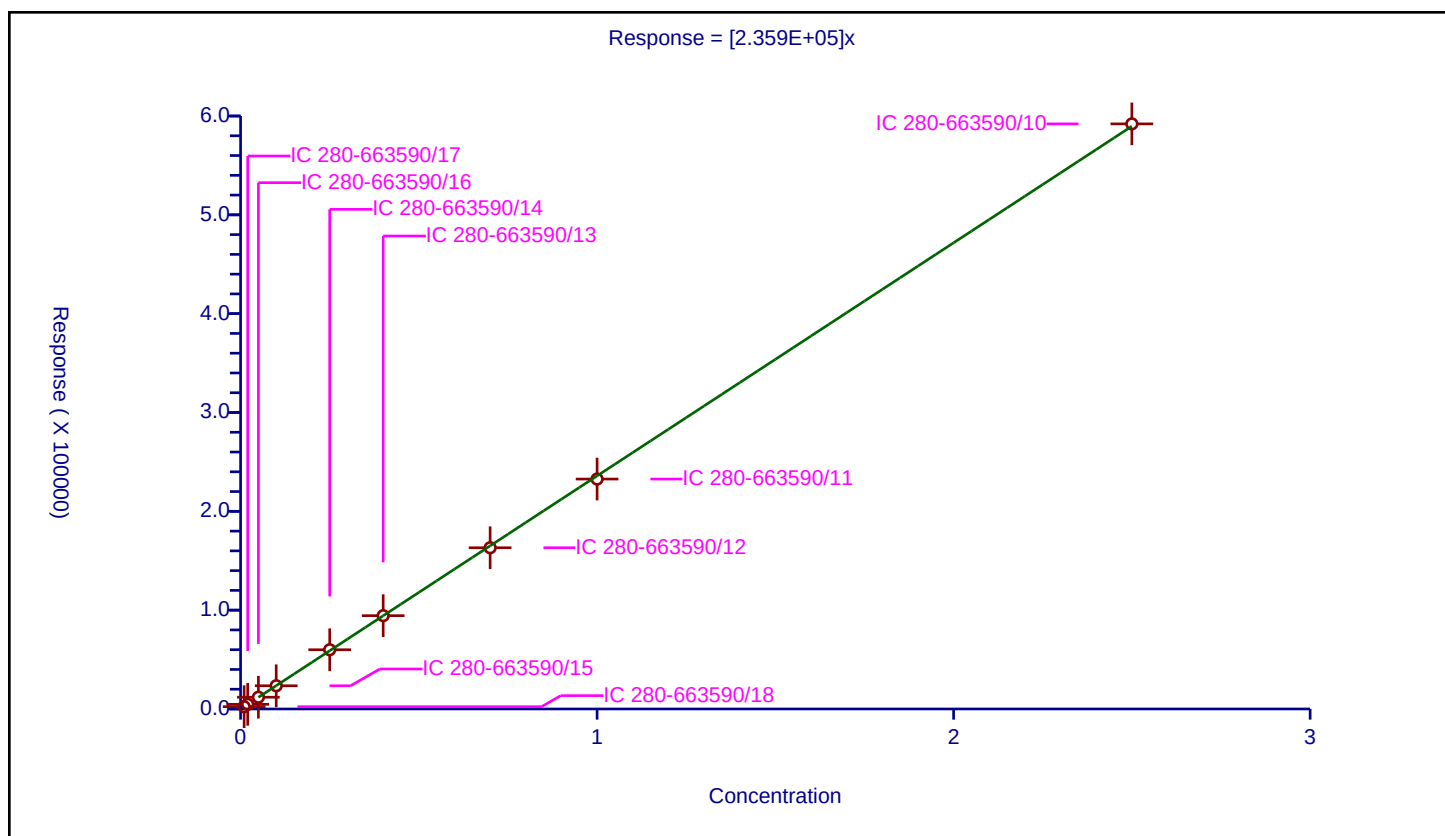
Curve Coefficients

Intercept: 0
Slope: 2.359E+05

Error Coefficients

Relative Standard Deviation: 1.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2340.0			234000.0	Y
2	IC 280-663590/17	0.02	4738.0			236900.0	Y
3	IC 280-663590/16	0.05	11922.0			238440.0	Y
4	IC 280-663590/15	0.1	23499.0			234990.0	Y
5	IC 280-663590/14	0.25	59944.0			239776.0	Y
6	IC 280-663590/13	0.4	94438.0			236095.0	Y
7	IC 280-663590/12	0.7	163156.0			233080.0	Y
8	IC 280-663590/11	1.0	232656.0			232656.0	Y
9	IC 280-663590/10	2.5	592052.0			236820.8	Y



Calibration

/ p-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

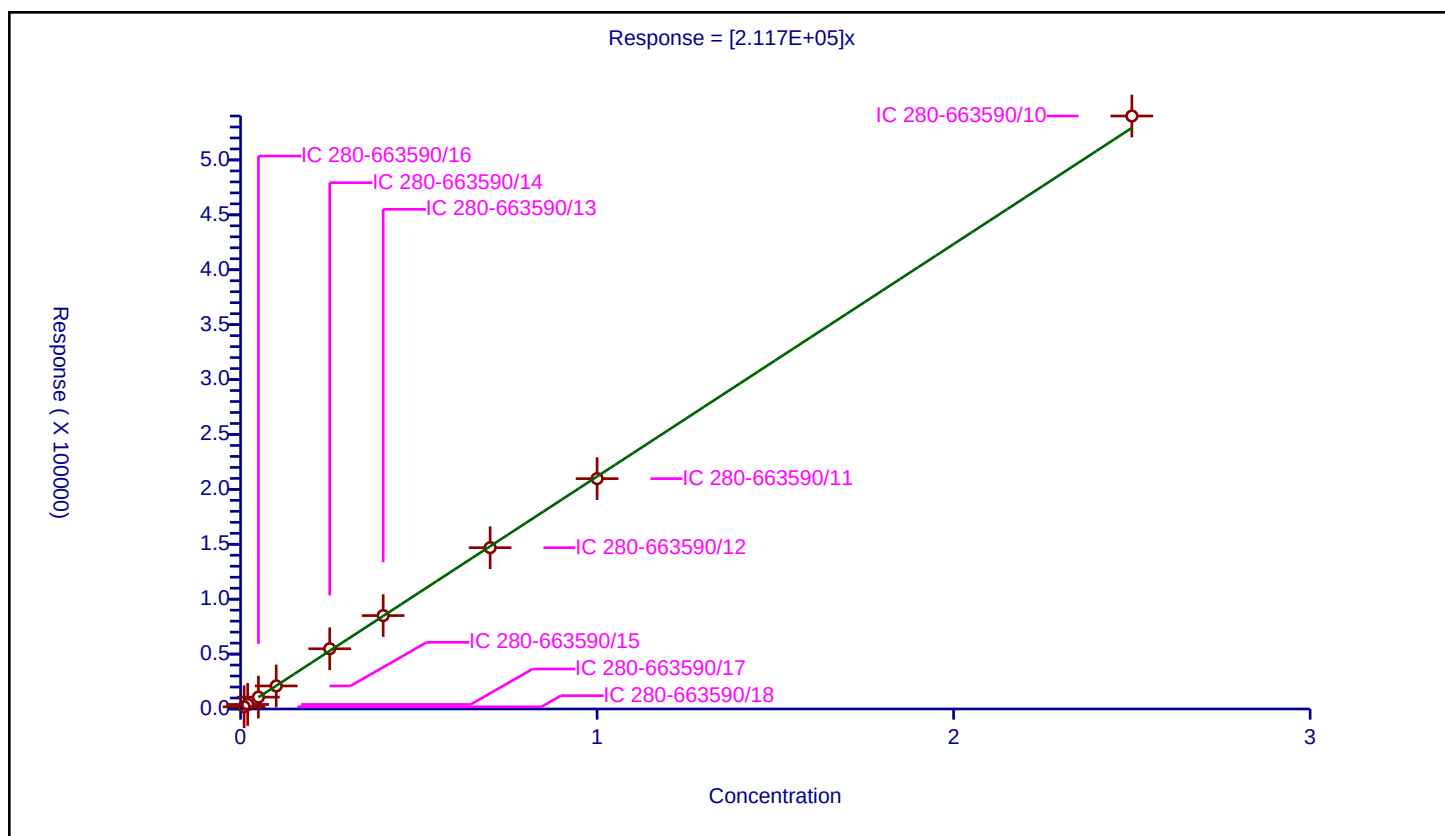
Curve Coefficients

Intercept: 0
Slope: 2.117E+05

Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2037.0			203700.0	Y
2	IC 280-663590/17	0.02	4148.0			207400.0	Y
3	IC 280-663590/16	0.05	10817.0			216340.0	Y
4	IC 280-663590/15	0.1	20994.0			209940.0	Y
5	IC 280-663590/14	0.25	54841.0			219364.0	Y
6	IC 280-663590/13	0.4	85068.0			212670.0	Y
7	IC 280-663590/12	0.7	146901.0			209858.571429	Y
8	IC 280-663590/11	1.0	209764.0			209764.0	Y
9	IC 280-663590/10	2.5	539999.0			215999.6	Y



Calibration

/ 4-Amino-2,6-dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

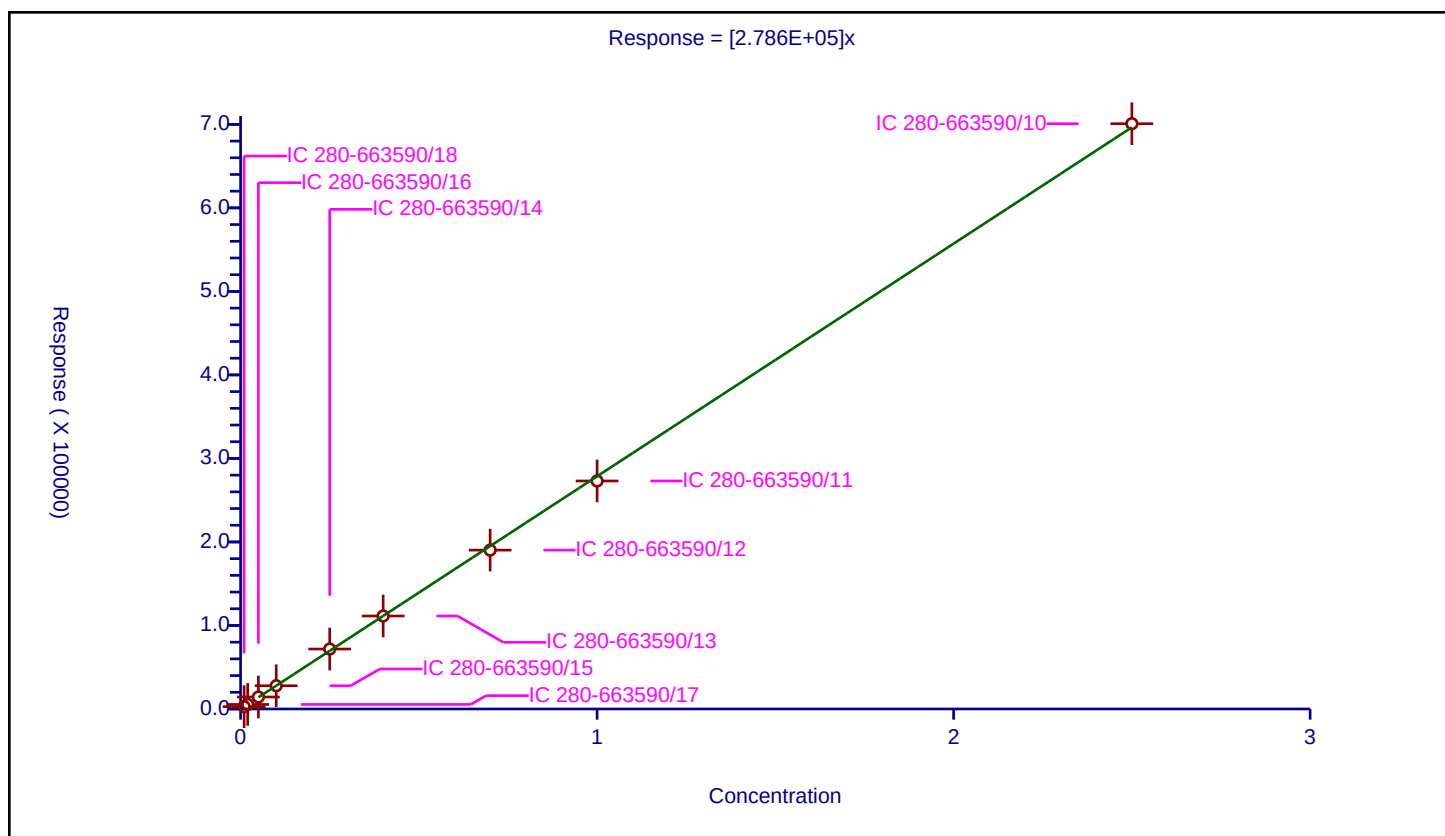
Curve Coefficients

Intercept: 0
Slope: 2.786E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2787.0			278700.0	Y
2	IC 280-663590/17	0.02	5455.0			272750.0	Y
3	IC 280-663590/16	0.05	14345.0			286900.0	Y
4	IC 280-663590/15	0.1	27825.0			278250.0	Y
5	IC 280-663590/14	0.25	71808.0			287232.0	Y
6	IC 280-663590/13	0.4	111348.0			278370.0	Y
7	IC 280-663590/12	0.7	190219.0			271741.428571	Y
8	IC 280-663590/11	1.0	273020.0			273020.0	Y
9	IC 280-663590/10	2.5	700817.0			280326.8	Y



Calibration

/ m-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

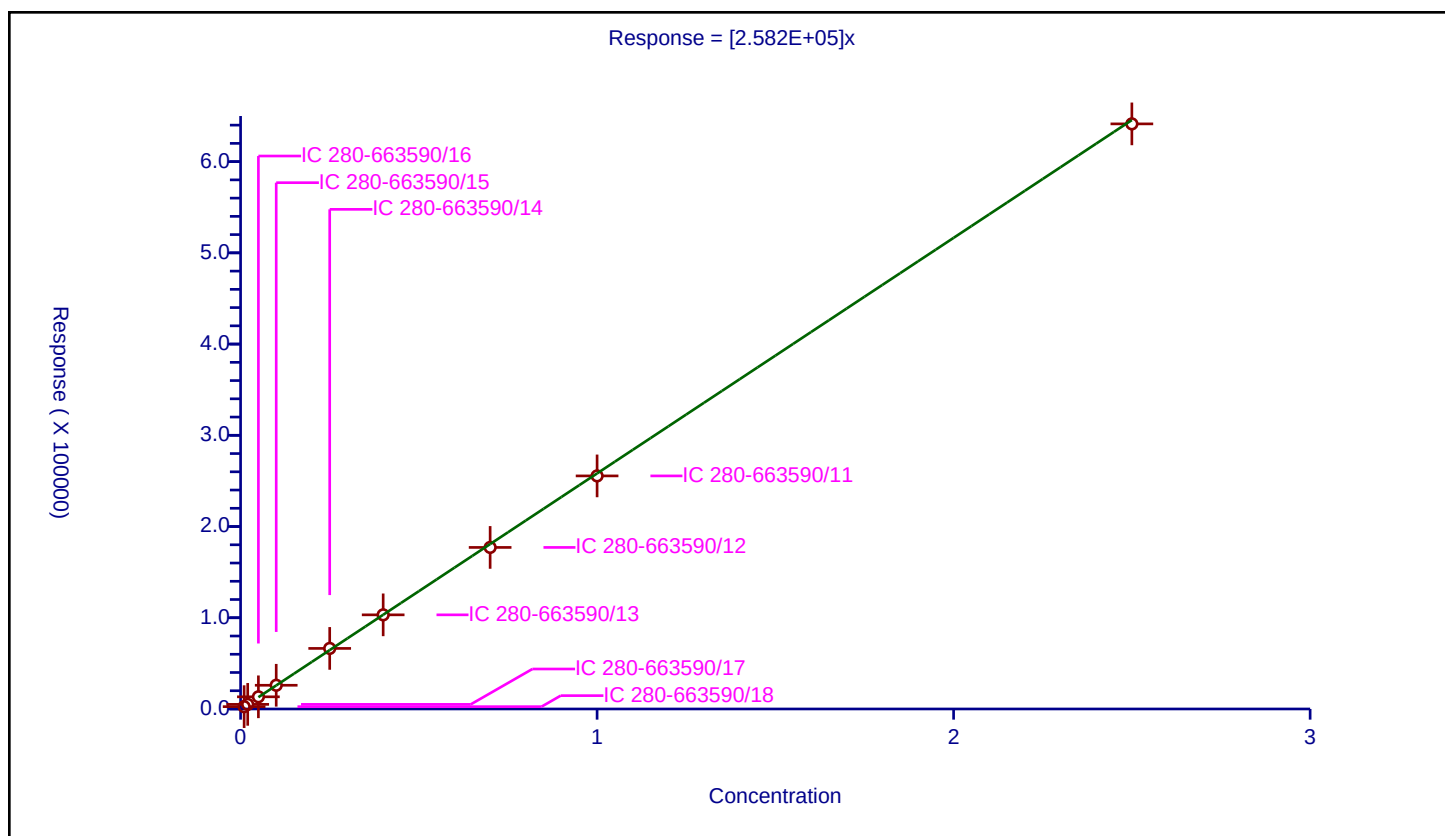
Curve Coefficients

Intercept: 0
Slope: 2.582E+05

Error Coefficients

Relative Standard Deviation: 1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2547.0			254700.0	Y
2	IC 280-663590/17	0.02	5081.0			254050.0	Y
3	IC 280-663590/16	0.05	13336.0			266720.0	Y
4	IC 280-663590/15	0.1	25999.0			259990.0	Y
5	IC 280-663590/14	0.25	66388.0			265552.0	Y
6	IC 280-663590/13	0.4	103187.0			257967.5	Y
7	IC 280-663590/12	0.7	177096.0			252994.285714	Y
8	IC 280-663590/11	1.0	255490.0			255490.0	Y
9	IC 280-663590/10	2.5	641382.0			256552.8	Y



Calibration

/ 2-Amino-4,6-dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

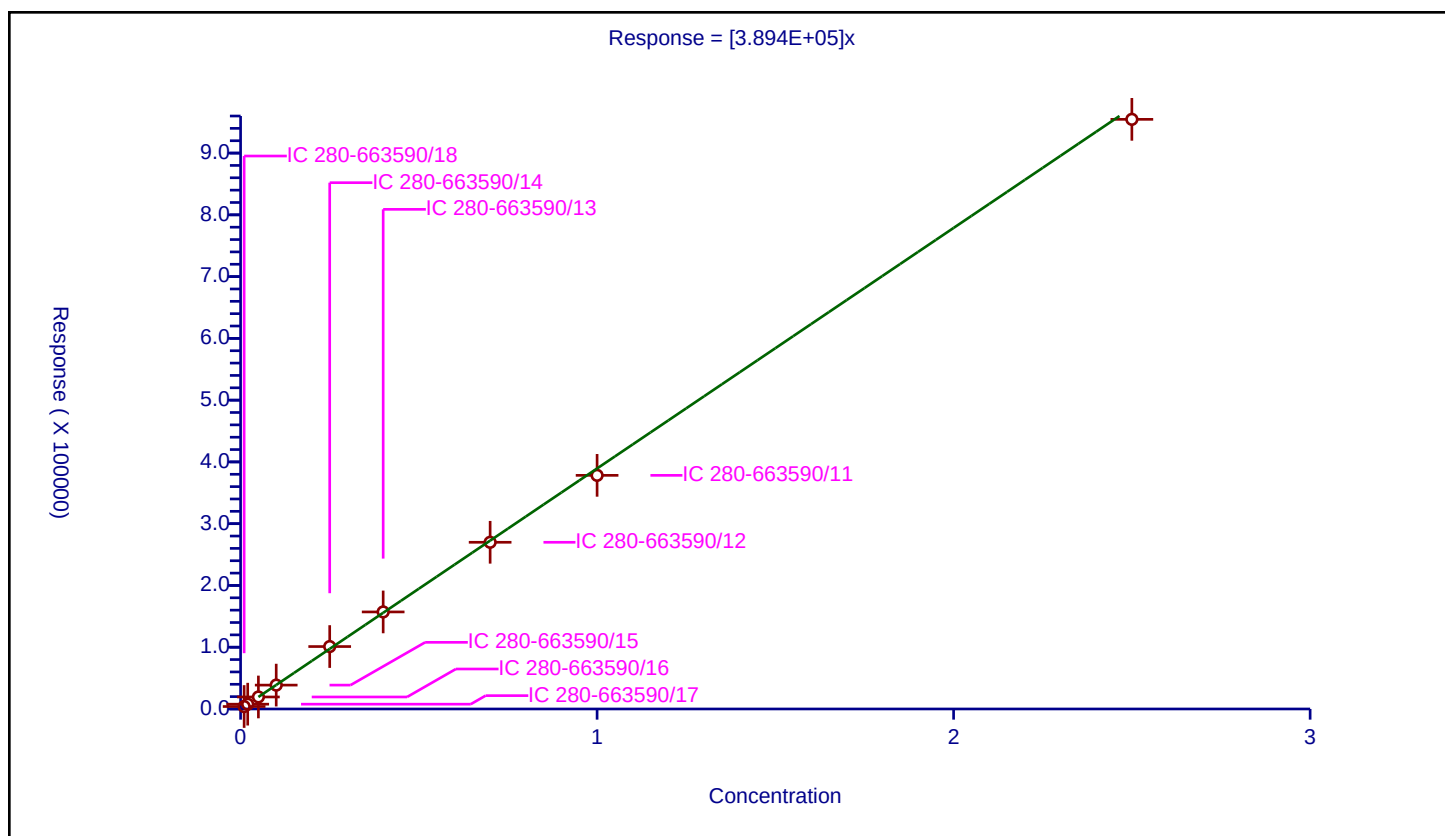
Curve Coefficients

Intercept: 0
Slope: 3.894E+05

Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	3972.0			397200.0	Y
2	IC 280-663590/17	0.02	7784.0			389200.0	Y
3	IC 280-663590/16	0.05	19449.0			388980.0	Y
4	IC 280-663590/15	0.1	38652.0			386520.0	Y
5	IC 280-663590/14	0.25	101067.0			404268.0	Y
6	IC 280-663590/13	0.4	157134.0			392835.0	Y
7	IC 280-663590/12	0.7	269908.0			385582.857143	Y
8	IC 280-663590/11	1.0	378245.0			378245.0	Y
9	IC 280-663590/10	2.5	954621.0			381848.4	Y



Calibration

/ 1,3,5-Trinitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

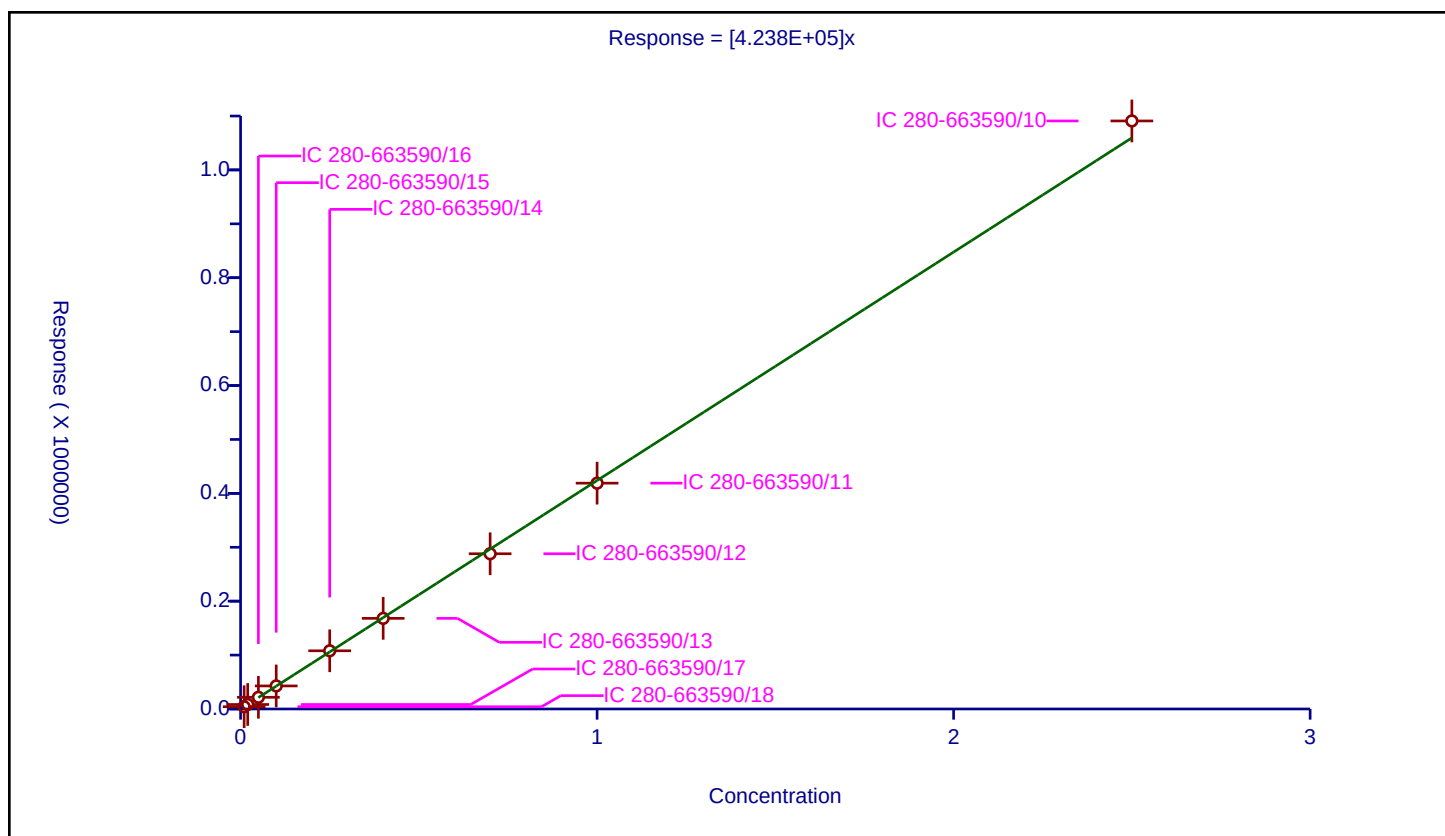
Curve Coefficients

Intercept: 0
Slope: 4.238E+05

Error Coefficients

Relative Standard Deviation: 2.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	4185.0			418500.0	Y
2	IC 280-663590/17	0.02	8315.0			415750.0	Y
3	IC 280-663590/16	0.05	21679.0			433580.0	Y
4	IC 280-663590/15	0.1	42742.0			427420.0	Y
5	IC 280-663590/14	0.25	107982.0			431928.0	Y
6	IC 280-663590/13	0.4	168114.0			420285.0	Y
7	IC 280-663590/12	0.7	287991.0			411415.714286	Y
8	IC 280-663590/11	1.0	418932.0			418932.0	Y
9	IC 280-663590/10	2.5	1090844.0			436337.6	Y



Calibration

/ 2,6-Dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

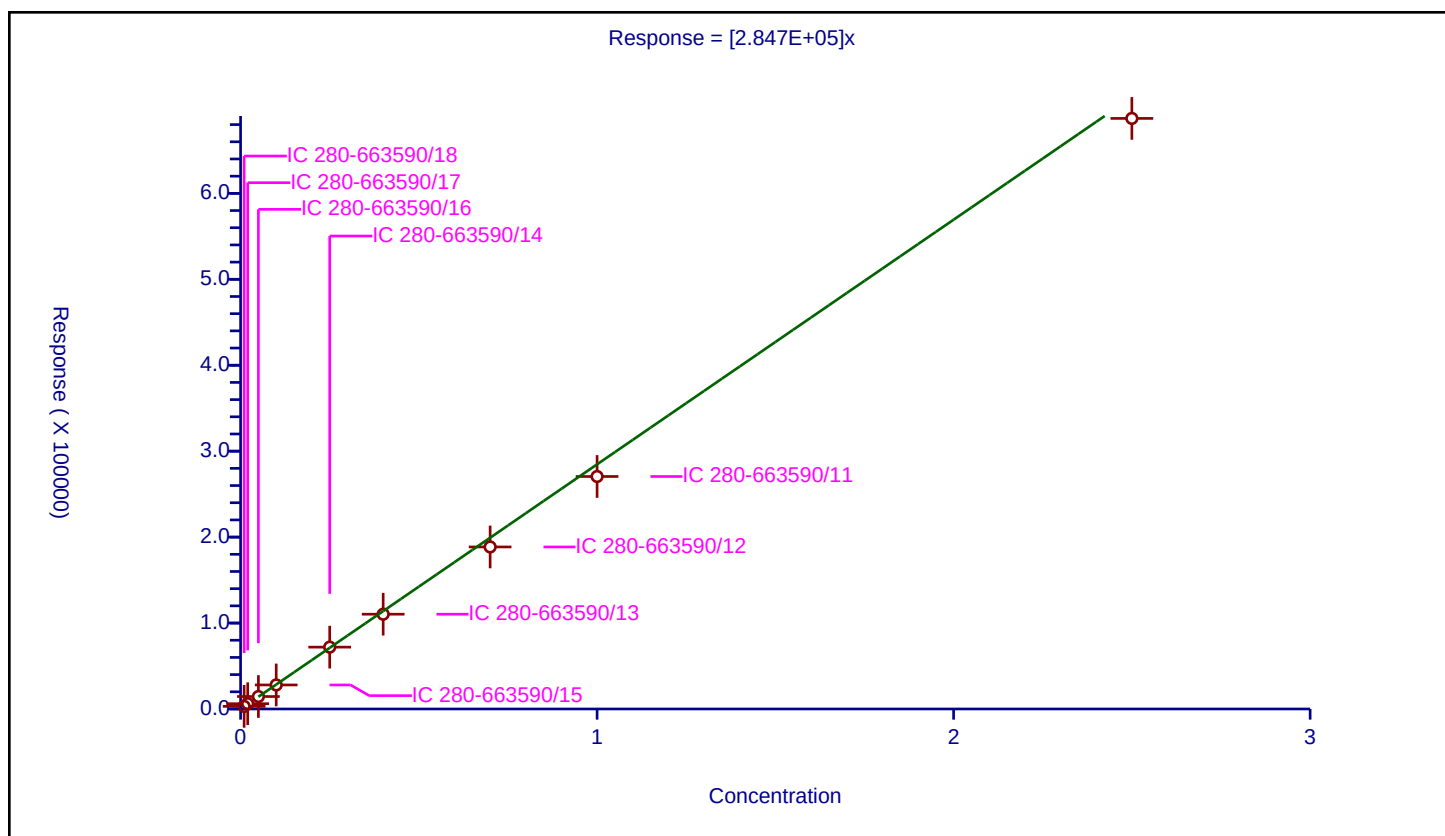
Curve Coefficients

Intercept: 0
Slope: 2.847E+05

Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	3065.0			306500.0	Y
2	IC 280-663590/17	0.02	6144.0			307200.0	Y
3	IC 280-663590/16	0.05	14521.0			290420.0	Y
4	IC 280-663590/15	0.1	27962.0			279620.0	Y
5	IC 280-663590/14	0.25	71960.0			287840.0	Y
6	IC 280-663590/13	0.4	110288.0			275720.0	Y
7	IC 280-663590/12	0.7	188559.0			269370.0	Y
8	IC 280-663590/11	1.0	270535.0			270535.0	Y
9	IC 280-663590/10	2.5	687201.0			274880.4	Y



Calibration

/ 2,4-Dinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

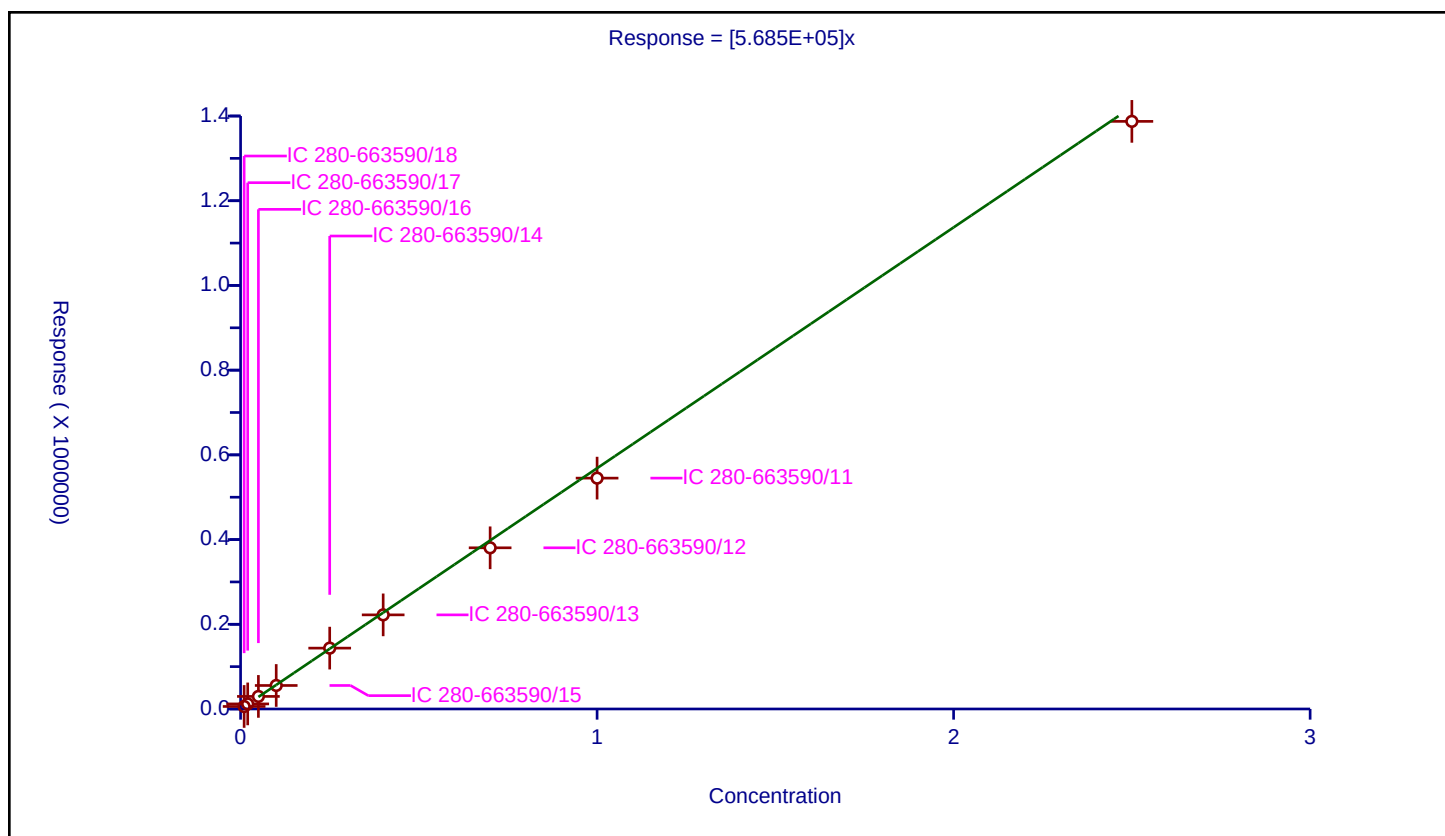
Curve Coefficients

Intercept: 0
Slope: 5.685E+05

Error Coefficients

Relative Standard Deviation: 4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	5939.0			593900.0	Y
2	IC 280-663590/17	0.02	12012.0			600600.0	Y
3	IC 280-663590/16	0.05	29669.0			593380.0	Y
4	IC 280-663590/15	0.1	55487.0			554870.0	Y
5	IC 280-663590/14	0.25	143677.0			574708.0	Y
6	IC 280-663590/13	0.4	222196.0			555490.0	Y
7	IC 280-663590/12	0.7	380534.0			543620.0	Y
8	IC 280-663590/11	1.0	545089.0			545089.0	Y
9	IC 280-663590/10	2.5	1387324.0			554929.6	Y



Calibration

/ Tetryl

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

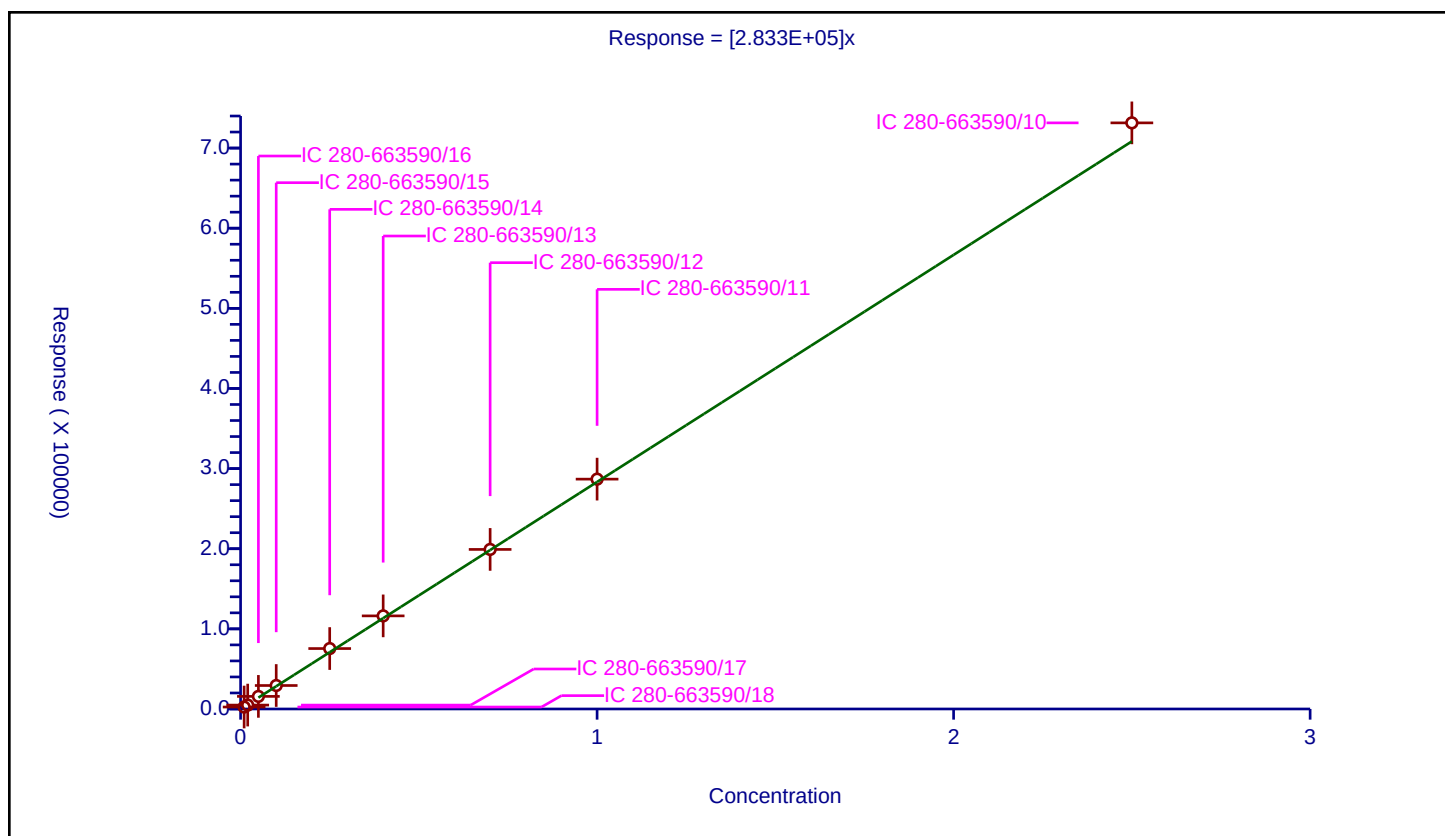
Curve Coefficients

Intercept: 0
Slope: 2.833E+05

Error Coefficients

Relative Standard Deviation: 8.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	2430.0			243000.0	Y
2	IC 280-663590/17	0.02	4871.0			243550.0	Y
3	IC 280-663590/16	0.05	15725.0			314500.0	Y
4	IC 280-663590/15	0.1	29297.0			292970.0	Y
5	IC 280-663590/14	0.25	75422.0			301688.0	Y
6	IC 280-663590/13	0.4	116189.0			290472.5	Y
7	IC 280-663590/12	0.7	199110.0			284442.857143	Y
8	IC 280-663590/11	1.0	286831.0			286831.0	Y
9	IC 280-663590/10	2.5	731459.0			292583.6	Y



Calibration

/ 2,4,6-Trinitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

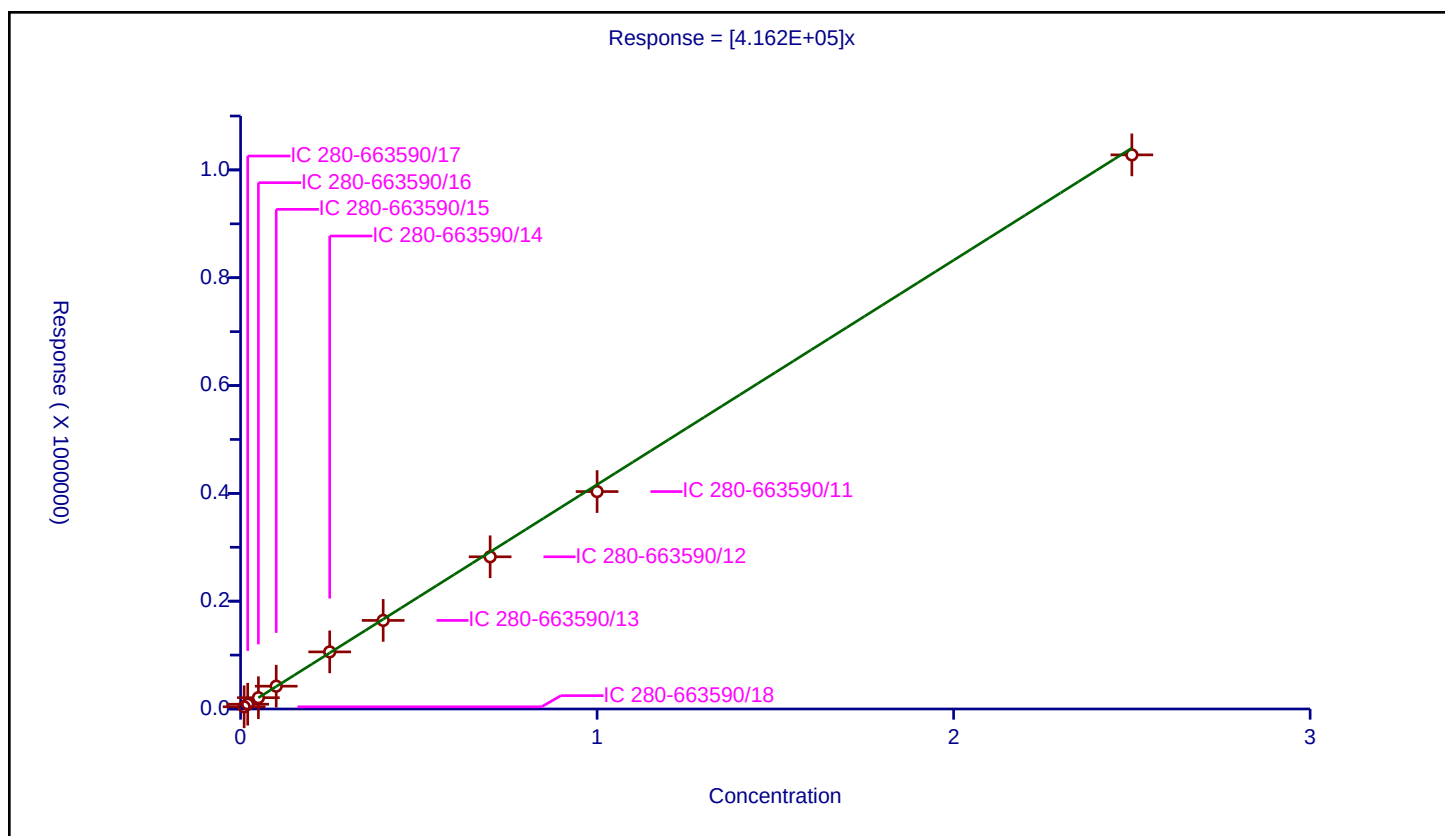
Curve Coefficients

Intercept: 0
Slope: 4.162E+05

Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.01	4082.0			408200.0	Y
2	IC 280-663590/17	0.02	8874.0			443700.0	Y
3	IC 280-663590/16	0.05	20936.0			418720.0	Y
4	IC 280-663590/15	0.1	42305.0			423050.0	Y
5	IC 280-663590/14	0.25	105934.0			423736.0	Y
6	IC 280-663590/13	0.4	164300.0			410750.0	Y
7	IC 280-663590/12	0.7	282341.0			403344.285714	Y
8	IC 280-663590/11	1.0	403353.0			403353.0	Y
9	IC 280-663590/10	2.5	1027908.0			411163.2	Y



Calibration

/ PETN

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

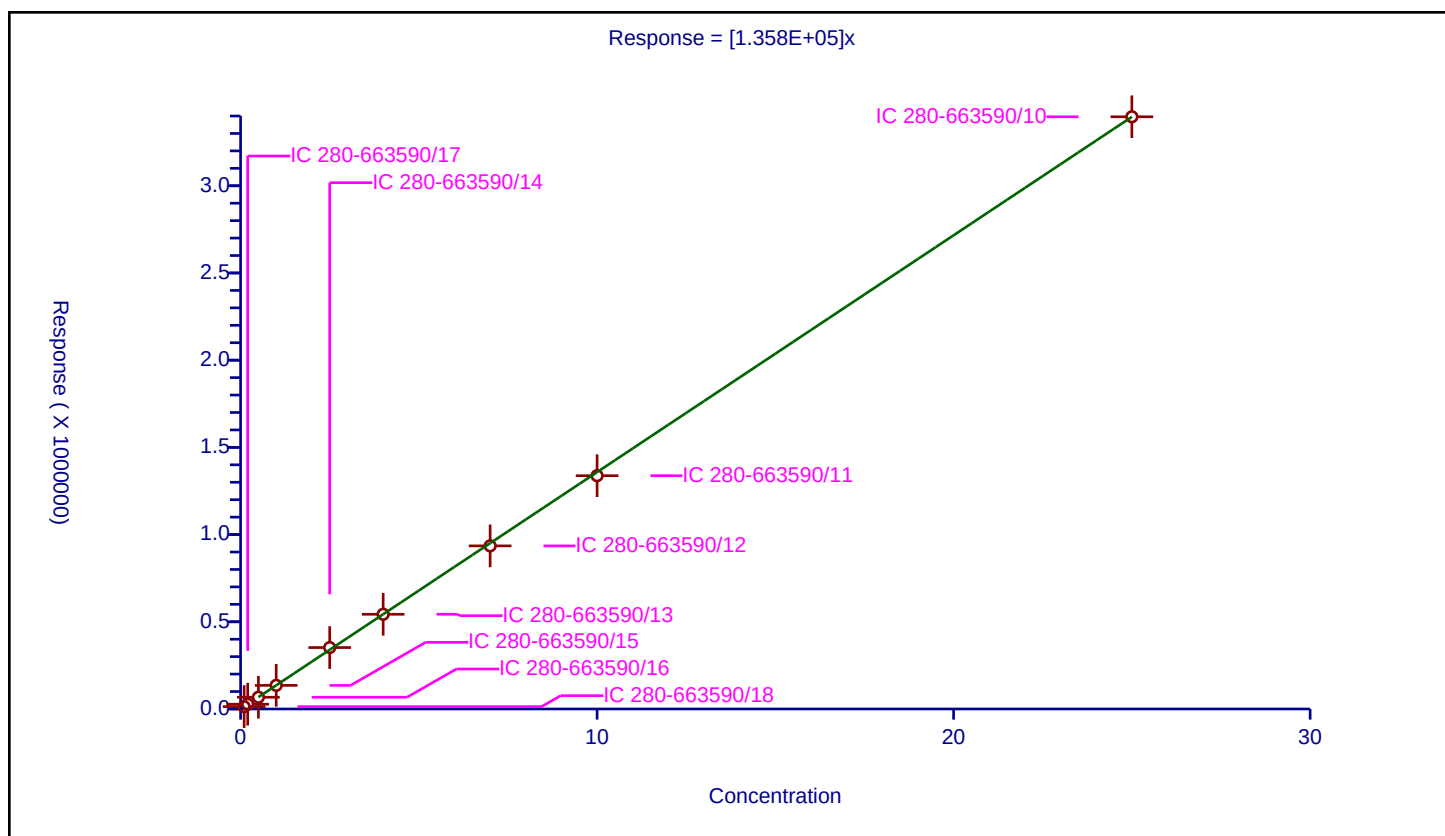
Curve Coefficients

Intercept: 0
Slope: 1.358E+05

Error Coefficients

Relative Standard Deviation: 1.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-663590/18	0.1	13555.0			135550.0	Y
2	IC 280-663590/17	0.2	27366.0			136830.0	Y
3	IC 280-663590/16	0.5	67315.0			134630.0	Y
4	IC 280-663590/15	1.0	135423.0			135423.0	Y
5	IC 280-663590/14	2.5	352162.0			140864.8	Y
6	IC 280-663590/13	4.0	543090.0			135772.5	Y
7	IC 280-663590/12	7.0	935188.0			133598.285714	Y
8	IC 280-663590/11	10.0	1337623.0			133762.3	Y
9	IC 280-663590/10	25.0	3395717.0			135828.68	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: ICV 280-669870/20 Calibration Date: 10/04/2024 20:16
 Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55
 Lab File ID: 10040020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	203078	184574		456	502	-9.1	20.0
HMX	Ave	96653	94070		487	500	-2.7	20.0
DNX	Ave	146042	146310		501	501	0.2	20.0
MNX	Ave	132934	127743		561	584	-3.9	20.0
RDX	Lin2		108094		514	500	2.8	20.0
Picric acid	Ave	75427	86634		574	500	14.9	20.0
1,3,5-Trinitrobenzene	Ave	217350	245010		564	500	12.7	20.0
1,3-Dinitrobenzene	Ave	298232	321326		539	500	7.7	20.0
Nitrobenzene	Ave	195178	208278		534	500	6.7	20.0
3,5-Dinitroaniline	Lin2		247186		530	500	6.1	20.0
Tetryl	Lin2		185704		543	500	8.6	20.0
Nitroglycerin	Lin2		69773		5420	5000	8.4	20.0
2,4,6-Trinitrotoluene	Ave	217298	224058		516	500	3.1	20.0
4-Amino-2,6-dinitrotoluene	Lin2		158314		546	500	9.3	20.0
2-Amino-4,6-dinitrotoluene	Ave	204531	216724		530	500	6.0	20.0
2,6-Dinitrotoluene	Lin2		149116		530	500	6.0	20.0
2,4-Dinitrotoluene	Ave	291812	309686		531	500	6.1	20.0
2-Nitrotoluene	Ave	125468	130908		522	500	4.3	20.0
4-Nitrotoluene	Lin2		114438		529	500	5.8	20.0
3-Nitrotoluene	Lin2		143934		531	500	6.2	20.0
PETN	Ave	72212	79177		5480	5000	9.6	20.0
1,2-Dinitrobenzene	Ave	130410	128386		492	500	-1.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: ICV 280-669870/20 Calibration Date: 10/04/2024 20:16
 Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55
 Lab File ID: 10040020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.34	6.54
HMX	6.57	6.43	6.73
DNX	6.75	6.65	6.85
MXN	7.15	7.00	7.30
RDX	7.50	7.36	7.66
Picric acid	7.91	7.79	8.09
1,3,5-Trinitrobenzene	8.47	8.33	8.63
1,3-Dinitrobenzene	9.03	8.89	9.19
Nitrobenzene	9.35	9.21	9.51
3,5-Dinitroaniline	9.55	9.41	9.71
Tetryl	9.67	9.53	9.83
Nitroglycerin	10.11	9.97	10.27
2,4,6-Trinitrotoluene	10.47	10.38	10.58
4-Amino-2,6-dinitrotoluene	10.62	10.54	10.74
2-Amino-4,6-dinitrotoluene	10.85	10.76	10.96
2,6-Dinitrotoluene	10.99	10.90	11.10
2,4-Dinitrotoluene	11.13	11.05	11.25
2-Nitrotoluene	11.83	11.70	12.00
4-Nitrotoluene	12.19	12.07	12.37
3-Nitrotoluene	12.70	12.57	12.87
PETN	13.77	13.65	13.95
1,2-Dinitrobenzene	8.37	8.23	8.53

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040020.D
 Lims ID: ICV INT/DMT
 Client ID:
 Sample Type: ICV
 Inject. Date: 04-Oct-2024 20:16:59 ALS Bottle#: 20 Worklist Smp#: 20
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: ICV INT/DMT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist:
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 08-Oct-2024 13:50:35 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1654

First Level Reviewer: LV5D

Date: 08-Oct-2024 13:12:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.437	-0.003	92564	0.5015	0.4558	
4 HMX	1	6.574	6.577	-0.003	47035	0.5000	0.4866	
6 DNx	1	6.747	6.751	-0.004	73228	0.5005	0.5014	
7 MNx	1	7.154	7.151	0.003	74538	0.5835	0.5607	
8 RDX	1	7.501	7.511	-0.010	54047	0.5000	0.5139	
9 2,4,6-Trinitrophenol	1	7.914	7.937	-0.023	43317	0.5000	0.5743	
\$ 10 1,2-Dinitrobenzene	1	8.367	8.377	-0.010	64193	0.5000	0.4922	
11 1,3,5-Trinitrobenzene	1	8.474	8.477	-0.003	122505	0.5000	0.5636	
12 1,3-Dinitrobenzene	1	9.034	9.037	-0.003	160663	0.5000	0.5387	
13 Nitrobenzene	1	9.347	9.357	-0.010	104139	0.5000	0.5336	
14 3,5-Dinitroaniline	1	9.554	9.564	-0.010	123593	0.5000	0.5303	
15 Tetryl	1	9.674	9.684	-0.010	92852	0.5000	0.5428	M
16 Nitroglycerin	2	10.114	10.124	-0.010	348863	5.00	5.42	M
17 2,4,6-Trinitrotoluene	1	10.467	10.477	-0.010	112029	0.5000	0.5156	
18 4-Amino-2,6-dinitrotoluene	1	10.620	10.637	-0.017	79157	0.5000	0.5464	
19 2-Amino-4,6-dinitrotoluene	1	10.847	10.864	-0.017	108362	0.5000	0.5298	
20 2,6-Dinitrotoluene	1	10.987	11.004	-0.017	74558	0.5000	0.5301	
21 2,4-Dinitrotoluene	1	11.134	11.150	-0.016	154843	0.5000	0.5306	
22 o-Nitrotoluene	1	11.827	11.850	-0.023	65454	0.5000	0.5217	
23 p-Nitrotoluene	1	12.194	12.217	-0.023	57219	0.5000	0.5288	
24 m-Nitrotoluene	1	12.700	12.724	-0.024	71967	0.5000	0.5308	
25 PETN	2	13.767	13.797	-0.030	395884	5.00	5.48	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8330Surrogate_00159	Amount Added: 50.00	Units: uL
8330 LCS_00137	Amount Added: 50.00	Units: uL
8330_OP_DMT_00030	Amount Added: 50.00	Units: uL

Report Date: 08-Oct-2024 13:50:49

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040020.d

Injection Date: 04-Oct-2024 20:16:59

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: ICV INT/DMT

Worklist Smp#: 20

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

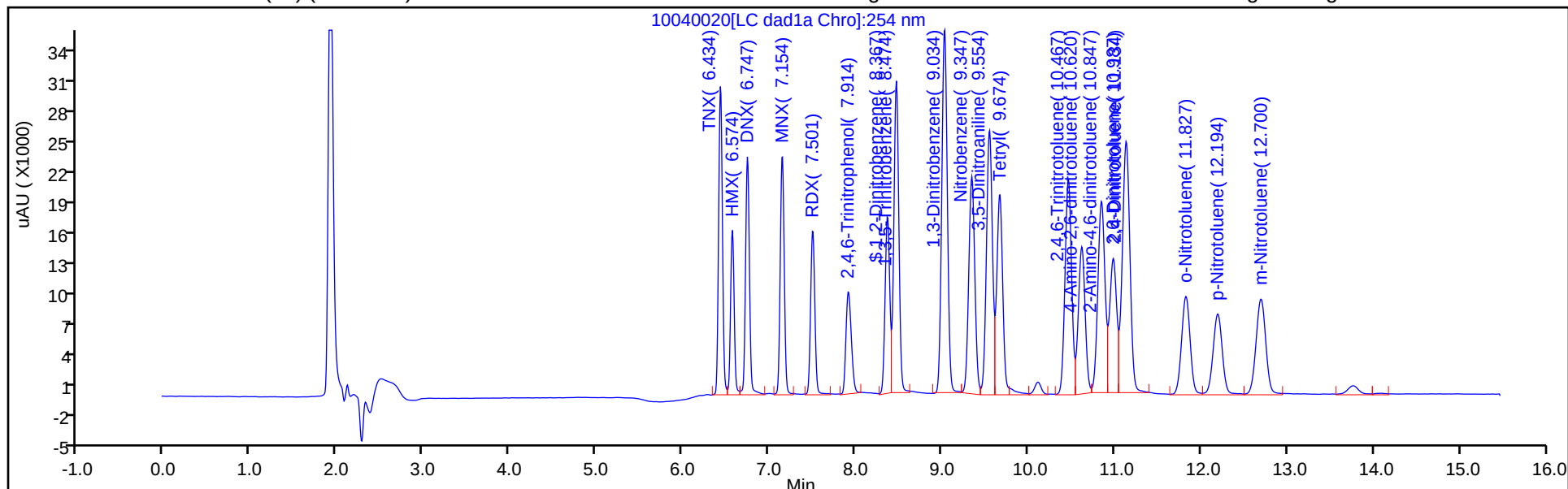
ALS Bottle#: 20

Method: 8330_X3

Limit Group: GCSV - 8330

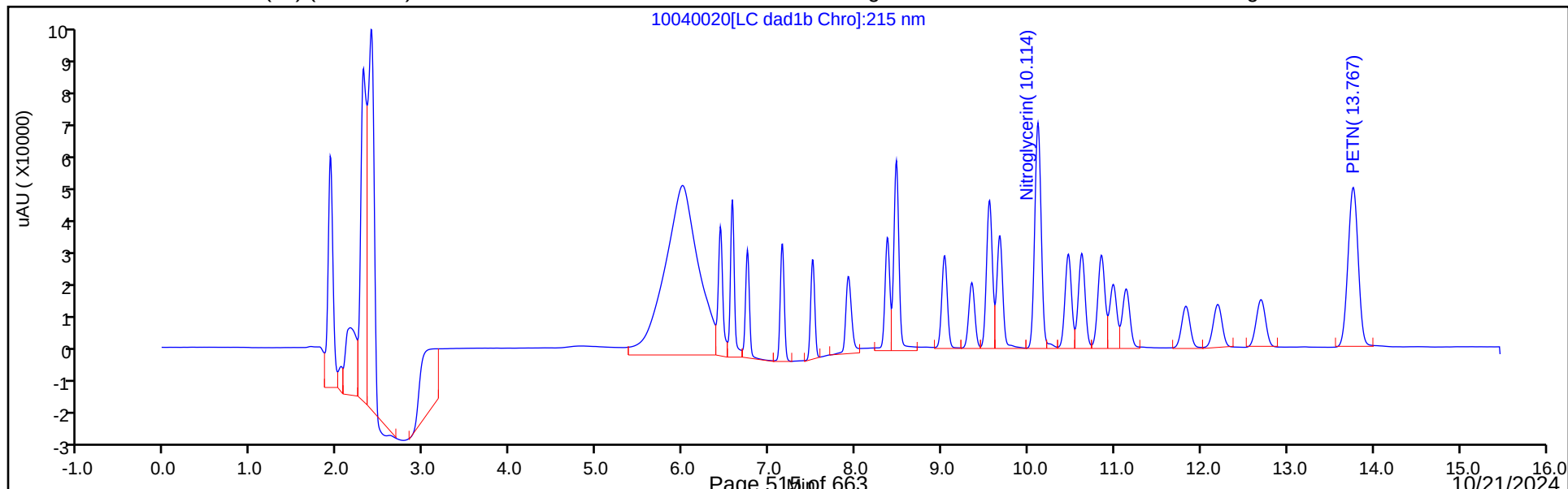
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

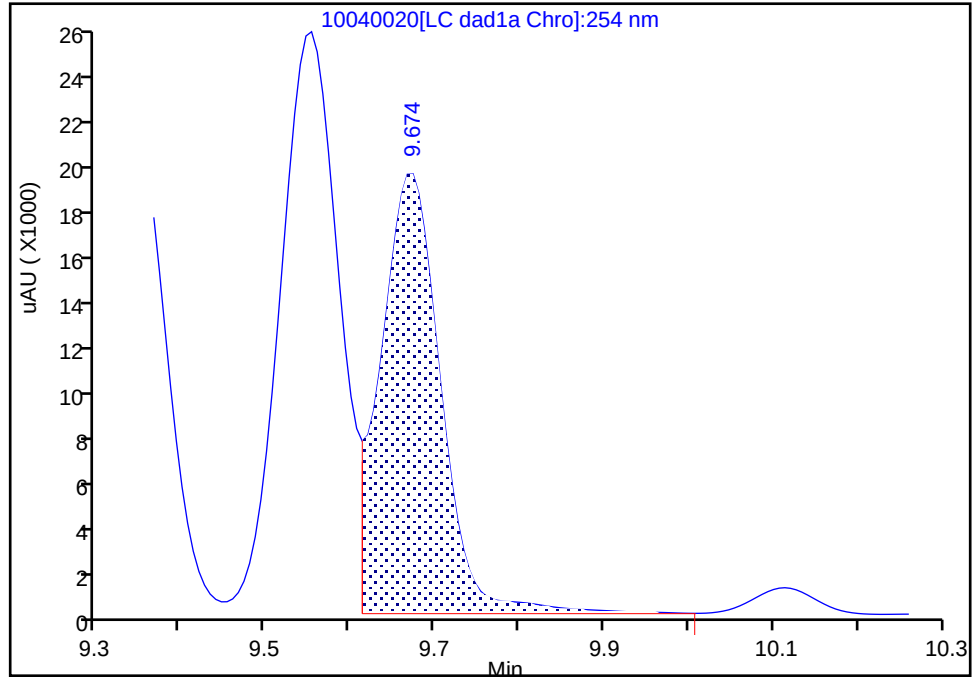
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040020.d
Injection Date: 04-Oct-2024 20:16:59 Instrument ID: CHHPLC_X3
Lims ID: ICV INT/DMT
Client ID:
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8

Signal: 1

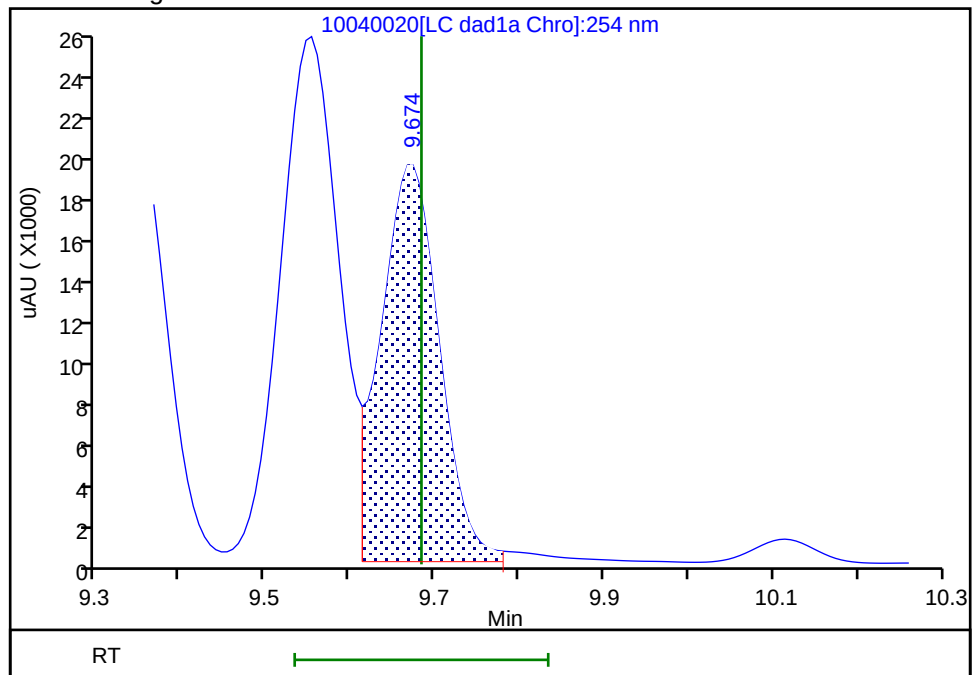
RT: 9.67
Area: 95739
Amount: 0.567120
Amount Units: ug/mL

Processing Integration Results



RT: 9.67
Area: 92852
Amount: 0.542780
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:11:49 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

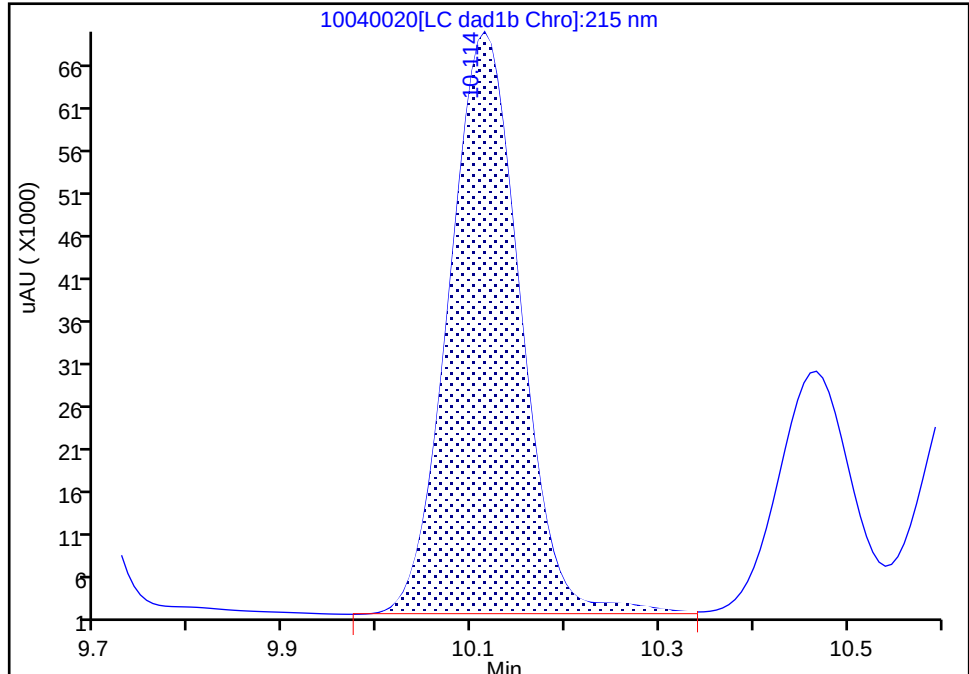
Data File: \\chromfs\denver\chromdata\chhplc_x\20241004-138284.b\10040020.d
Injection Date: 04-Oct-2024 20:16:59 Instrument ID: CHHPLC_X3
Lims ID: ICV INT/DMT
Client ID:
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

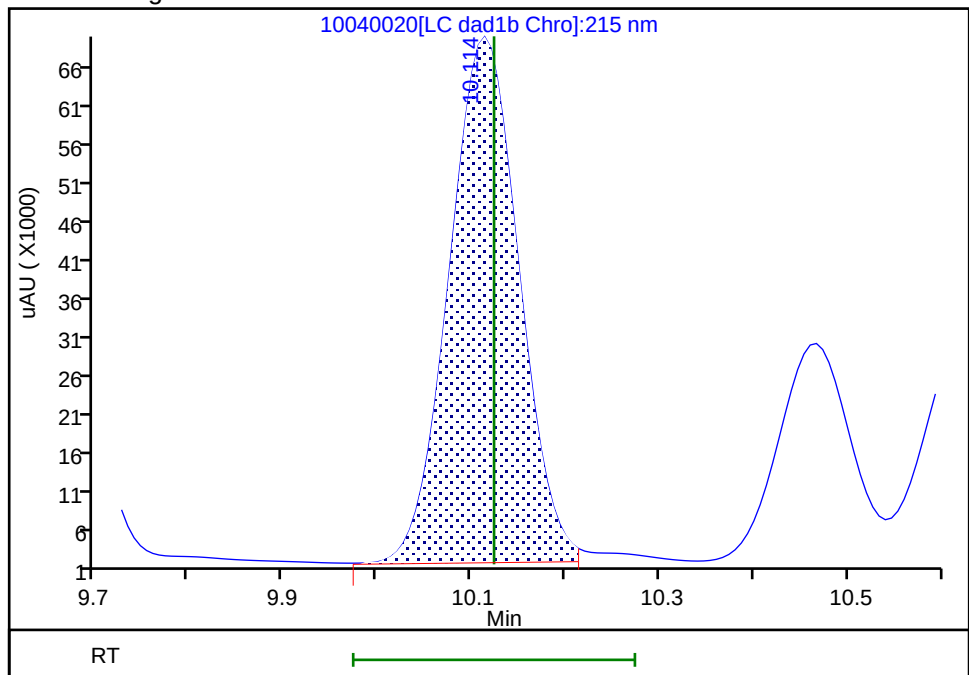
RT: 10.11
Area: 355382
Amount: 5.587098
Amount Units: ug/mL

Processing Integration Results



RT: 10.11
Area: 348863
Amount: 5.418687
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-Oct-2024 13:11:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671268/38 Calibration Date: 10/17/2024 02:48

Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59

GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55

Lab File ID: 10160038.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	96653	95264		246	250	-1.4	20.0
RDX	Lin2		105884		251	250	0.3	20.0
Picric acid	Ave	75427	76040		252	250	0.8	20.0
1,3,5-Trinitrobenzene	Ave	217350	214160		246	250	-1.5	20.0
1,3-Dinitrobenzene	Ave	298232	297200		249	250	-0.3	20.0
Nitrobenzene	Ave	195178	186528		239	250	-4.4	20.0
3,5-Dinitroaniline	Lin2		229428		246	250	-1.5	20.0
Tetryl	Lin2		165956		243	250	-2.8	20.0
Nitroglycerin	Lin2		65951		2560	2500	2.6	20.0
2,4,6-Trinitrotoluene	Ave	217298	213456		246	250	-1.8	20.0
4-Amino-2,6-dinitrotoluene	Lin2		142804		244	250	-2.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	204531	199372		244	250	-2.5	20.0
2,6-Dinitrotoluene	Lin2		143328		254	250	1.6	20.0
2,4-Dinitrotoluene	Ave	291812	286004		245	250	-2.0	20.0
2-Nitrotoluene	Ave	125468	119776		239	250	-4.5	20.0
4-Nitrotoluene	Lin2		103472		238	250	-4.7	20.0
3-Nitrotoluene	Lin2		132096		243	250	-3.0	20.0
PETN	Ave	72212	73369		2540	2500	1.6	20.0
1,2-Dinitrobenzene	Ave	130410	132552		254	250	1.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671268/38 Calibration Date: 10/17/2024 02:48

Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59

GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55

Lab File ID: 10160038.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.57	6.42	6.72
RDX	7.50	7.34	7.64
Picric acid	7.90	7.74	8.04
1,3,5-Trinitrobenzene	8.47	8.32	8.62
1,3-Dinitrobenzene	9.03	8.87	9.17
Nitrobenzene	9.35	9.19	9.49
3,5-Dinitroaniline	9.56	9.40	9.70
Tetryl	9.68	9.51	9.81
Nitroglycerin	10.12	9.96	10.26
2,4,6-Trinitrotoluene	10.47	10.36	10.56
4-Amino-2,6-dinitrotoluene	10.63	10.52	10.72
2-Amino-4,6-dinitrotoluene	10.86	10.75	10.95
2,6-Dinitrotoluene	11.00	10.89	11.09
2,4-Dinitrotoluene	11.14	11.04	11.24
2-Nitrotoluene	11.84	11.68	11.98
4-Nitrotoluene	12.20	12.05	12.35
3-Nitrotoluene	12.70	12.54	12.84
PETN	13.78	13.60	13.90
1,2-Dinitrobenzene	8.37	8.21	8.51

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160038.D
 Lims ID: CCV INT
 Client ID:
 Sample Type: CCV
 Inject. Date: 17-Oct-2024 02:48:30 ALS Bottle#: 7 Worklist Smp#: 38
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV INT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub26
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.570	6.567	0.003	23816	0.2500	0.2464	
8 RDX	1	7.504	7.494	0.010	26471	0.2500	0.2509	
9 2,4,6-Trinitrophenol	1	7.904	7.894	0.010	19010	0.2500	0.2520	
\$ 10 1,2-Dinitrobenzene	1	8.370	8.360	0.010	33138	0.2500	0.2541	
11 1,3,5-Trinitrobenzene	1	8.470	8.467	0.003	53540	0.2500	0.2463	
12 1,3-Dinitrobenzene	1	9.030	9.020	0.010	74300	0.2500	0.2491	
13 Nitrobenzene	1	9.350	9.340	0.010	46632	0.2500	0.2389	
14 3,5-Dinitroaniline	1	9.557	9.547	0.010	57357	0.2500	0.2463	
15 Tetryl	1	9.677	9.660	0.017	41489	0.2500	0.2429	
16 Nitroglycerin	2	10.124	10.107	0.017	164878	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.470	10.460	0.010	53364	0.2500	0.2456	
18 4-Amino-2,6-dinitrotoluene	1	10.630	10.620	0.010	35701	0.2500	0.2441	
19 2-Amino-4,6-dinitrotoluene	1	10.857	10.853	0.004	49843	0.2500	0.2437	
20 2,6-Dinitrotoluene	1	10.997	10.987	0.010	35832	0.2500	0.2541	
21 2,4-Dinitrotoluene	1	11.144	11.140	0.004	71501	0.2500	0.2450	
22 o-Nitrotoluene	1	11.837	11.833	0.004	29944	0.2500	0.2387	
23 p-Nitrotoluene	1	12.204	12.200	0.004	25868	0.2500	0.2383	
24 m-Nitrotoluene	1	12.704	12.693	0.011	33024	0.2500	0.2426	
25 PETN	2	13.777	13.753	0.024	183423	2.50	2.54	

Reagents:

8330IntermStk_00083

Amount Added: 25.00

Units: uL

Report Date: 17-Oct-2024 12:00:39

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160038.d

Injection Date: 17-Oct-2024 02:48:30

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 38

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

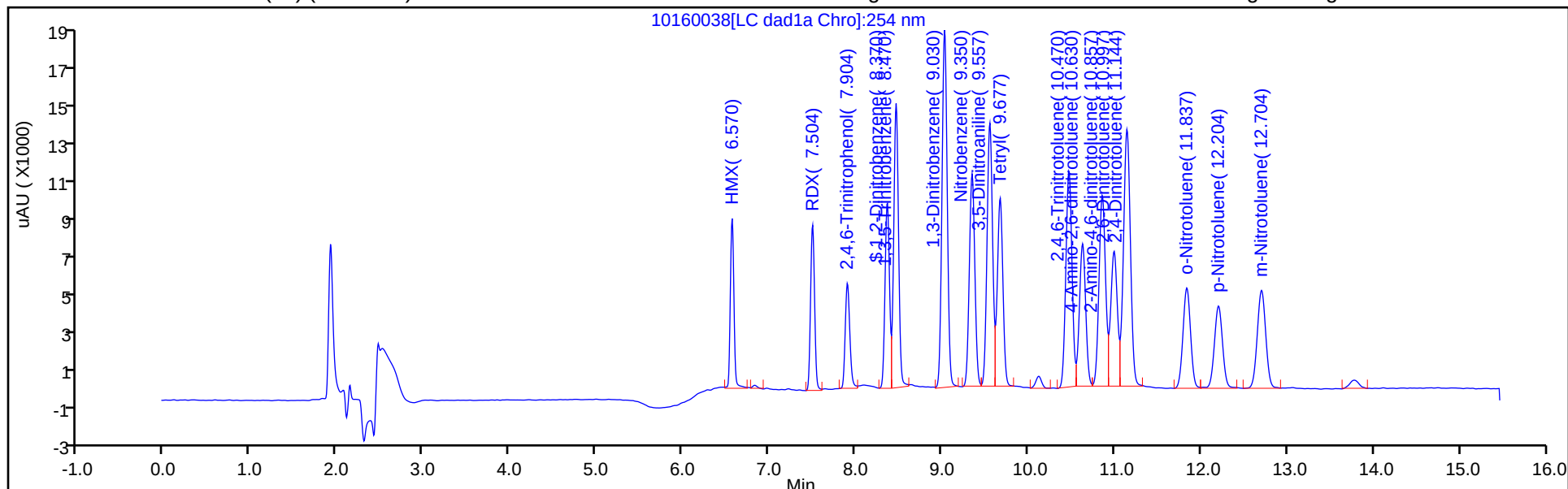
ALS Bottle#: 7

Method: 8330_X3

Limit Group: GCSV - 8330

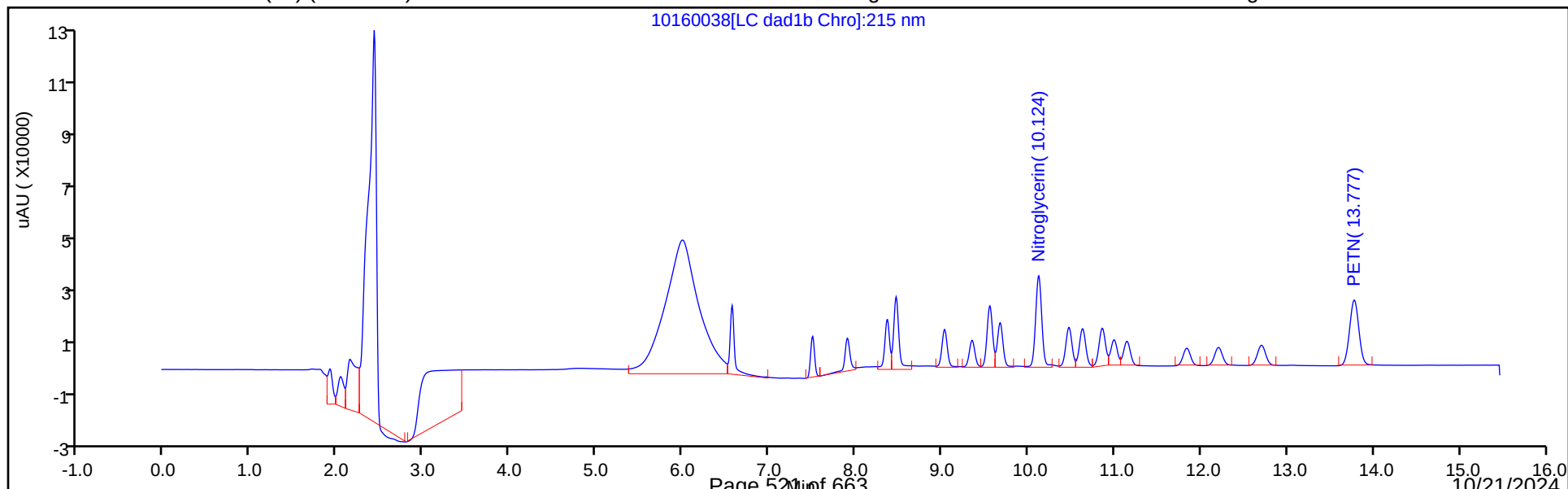
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671268/49 Calibration Date: 10/17/2024 06:49

Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59

GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55

Lab File ID: 10160049.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	96653	94132		243	250	-2.6	20.0
RDX	Lin2		106692		253	250	1.1	20.0
Picric acid	Ave	75427	76524		254	250	1.5	20.0
1,3,5-Trinitrobenzene	Ave	217350	214500		247	250	-1.3	20.0
1,3-Dinitrobenzene	Ave	298232	296796		249	250	-0.5	20.0
Nitrobenzene	Ave	195178	184976		237	250	-5.2	20.0
3,5-Dinitroaniline	Lin2		233972		251	250	0.5	20.0
Tetryl	Lin2		165960		243	250	-2.8	20.0
Nitroglycerin	Lin2		66708		2590	2500	3.7	20.0
2,4,6-Trinitrotoluene	Ave	217298	215272		248	250	-0.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		146812		251	250	0.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	204531	201100		246	250	-1.7	20.0
2,6-Dinitrotoluene	Lin2		144276		256	250	2.3	20.0
2,4-Dinitrotoluene	Ave	291812	289268		248	250	-0.9	20.0
2-Nitrotoluene	Ave	125468	118260		236	250	-5.7	20.0
4-Nitrotoluene	Lin2		103884		239	250	-4.3	20.0
3-Nitrotoluene	Lin2		130780		240	250	-4.0	20.0
PETN	Ave	72212	73581		2550	2500	1.9	20.0
1,2-Dinitrobenzene	Ave	130410	132476		254	250	1.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: CCV 280-671268/49 Calibration Date: 10/17/2024 06:49
 Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55
 Lab File ID: 10160049.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.57	6.42	6.72
RDX	7.50	7.34	7.64
Picric acid	7.90	7.74	8.04
1,3,5-Trinitrobenzene	8.46	8.32	8.62
1,3-Dinitrobenzene	9.02	8.87	9.17
Nitrobenzene	9.33	9.19	9.49
3,5-Dinitroaniline	9.54	9.40	9.70
Tetryl	9.65	9.51	9.81
Nitroglycerin	10.10	9.96	10.26
2,4,6-Trinitrotoluene	10.45	10.36	10.56
4-Amino-2,6-dinitrotoluene	10.60	10.52	10.72
2-Amino-4,6-dinitrotoluene	10.83	10.75	10.95
2,6-Dinitrotoluene	10.97	10.89	11.09
2,4-Dinitrotoluene	11.12	11.04	11.24
2-Nitrotoluene	11.82	11.68	11.98
4-Nitrotoluene	12.18	12.05	12.35
3-Nitrotoluene	12.68	12.54	12.84
PETN	13.75	13.60	13.90
1,2-Dinitrobenzene	8.35	8.21	8.51

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160049.D
 Lims ID: CCV INT
 Client ID:
 Sample Type: CCV
 Inject. Date: 17-Oct-2024 06:49:51 ALS Bottle#: 7 Worklist Smp#: 49
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV INT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub26
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:49 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.569	6.567	0.002	23533	0.2500	0.2435	
8 RDX	1	7.495	7.494	0.001	26673	0.2500	0.2528	
9 2,4,6-Trinitrophenol	1	7.895	7.894	0.001	19131	0.2500	0.2536	
\$ 10 1,2-Dinitrobenzene	1	8.349	8.360	-0.011	33119	0.2500	0.2540	
11 1,3,5-Trinitrobenzene	1	8.455	8.467	-0.012	53625	0.2500	0.2467	
12 1,3-Dinitrobenzene	1	9.015	9.020	-0.005	74199	0.2500	0.2488	
13 Nitrobenzene	1	9.328	9.340	-0.012	46244	0.2500	0.2369	
14 3,5-Dinitroaniline	1	9.535	9.547	-0.012	58493	0.2500	0.2512	
15 Tetryl	1	9.648	9.660	-0.012	41490	0.2500	0.2429	
16 Nitroglycerin	2	10.095	10.107	-0.012	166769	2.50	2.59	
17 2,4,6-Trinitrotoluene	1	10.448	10.460	-0.012	53818	0.2500	0.2477	
18 4-Amino-2,6-dinitrotoluene	1	10.602	10.620	-0.018	36703	0.2500	0.2510	
19 2-Amino-4,6-dinitrotoluene	1	10.828	10.853	-0.025	50275	0.2500	0.2458	
20 2,6-Dinitrotoluene	1	10.968	10.987	-0.019	36069	0.2500	0.2558	
21 2,4-Dinitrotoluene	1	11.122	11.140	-0.018	72317	0.2500	0.2478	
22 o-Nitrotoluene	1	11.815	11.833	-0.018	29565	0.2500	0.2356	
23 p-Nitrotoluene	1	12.182	12.200	-0.018	25971	0.2500	0.2392	
24 m-Nitrotoluene	1	12.682	12.693	-0.011	32695	0.2500	0.2401	
25 PETN	2	13.748	13.753	-0.005	183953	2.50	2.55	

Reagents:

8330IntermStk_00083

Amount Added: 25.00

Units: uL

Report Date: 17-Oct-2024 12:00:49

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160049.d

Injection Date: 17-Oct-2024 06:49:51

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 49

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

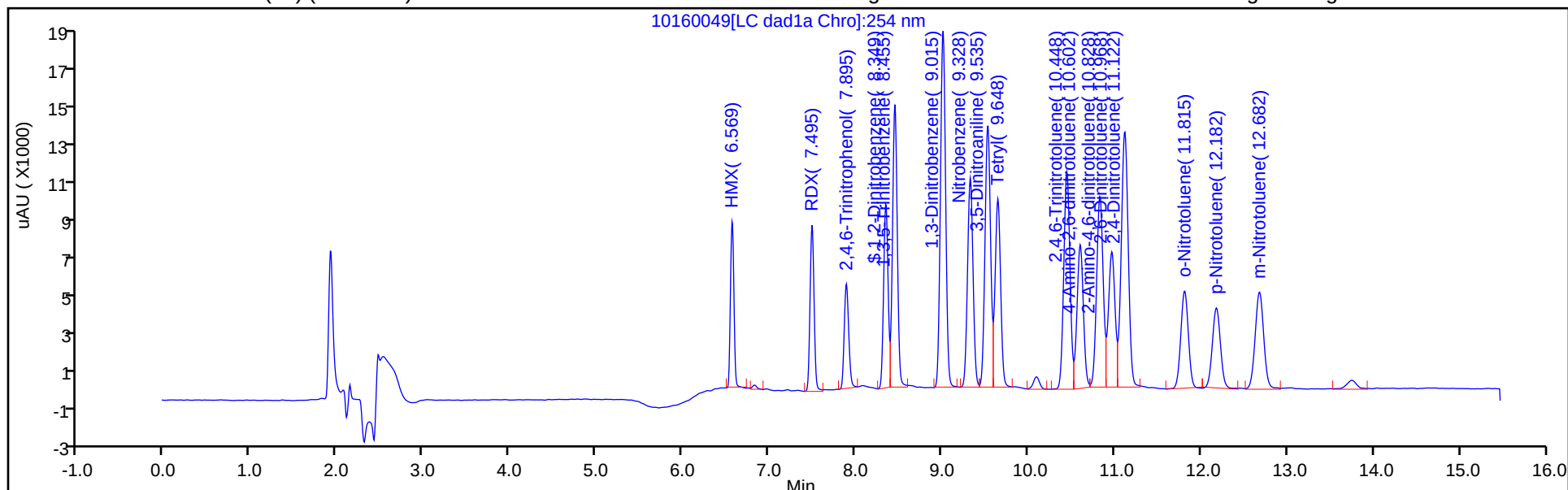
ALS Bottle#: 7

Method: 8330_X3

Limit Group: GCSV - 8330

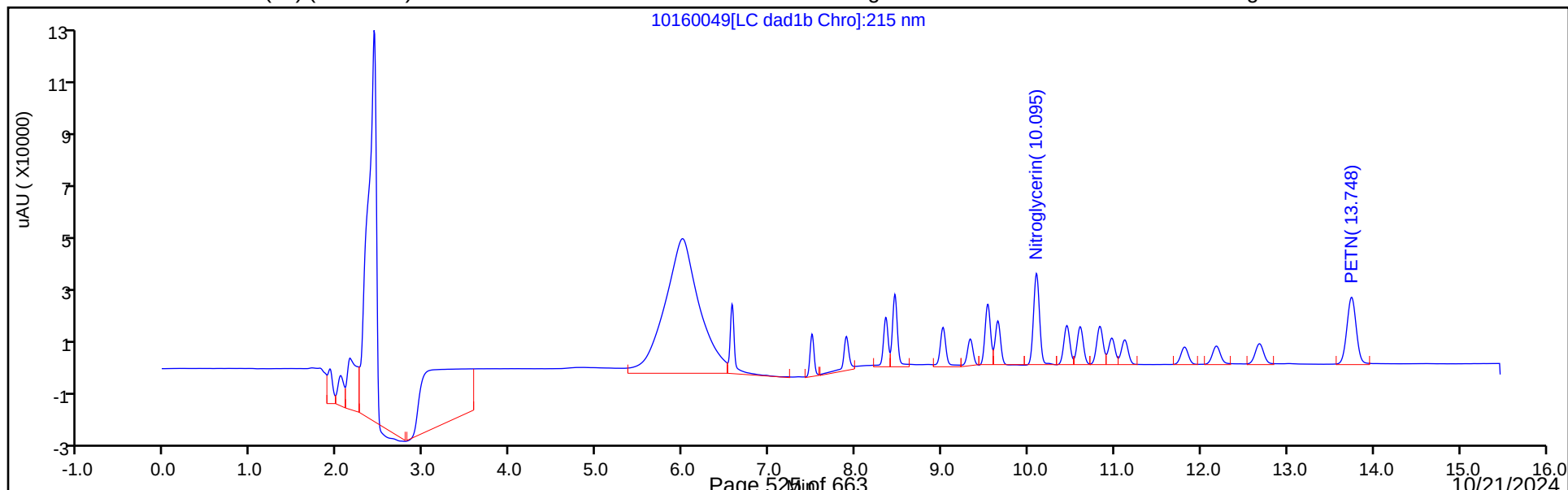
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671268/60 Calibration Date: 10/17/2024 10:51

Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59

GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55

Lab File ID: 10160060.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	96653	96328		249	250	-0.3	20.0
RDX	Lin2		106564		252	250	1.0	20.0
Picric acid	Ave	75427	77140		256	250	2.3	20.0
1,3,5-Trinitrobenzene	Ave	217350	216344		249	250	-0.5	20.0
1,3-Dinitrobenzene	Ave	298232	297568		249	250	-0.2	20.0
Nitrobenzene	Ave	195178	183640		235	250	-5.9	20.0
3,5-Dinitroaniline	Lin2		234524		252	250	0.7	20.0
Tetryl	Lin2		165296		242	250	-3.2	20.0
Nitroglycerin	Lin2		66325		2580	2500	3.1	20.0
2,4,6-Trinitrotoluene	Ave	217298	215800		248	250	-0.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		149252		255	250	2.1	20.0
2-Amino-4,6-dinitrotoluene	Ave	204531	203244		248	250	-0.6	20.0
2,6-Dinitrotoluene	Lin2		144396		256	250	2.4	20.0
2,4-Dinitrotoluene	Ave	291812	289920		248	250	-0.6	20.0
2-Nitrotoluene	Ave	125468	116448		232	250	-7.2	20.0
4-Nitrotoluene	Lin2		103732		239	250	-4.5	20.0
3-Nitrotoluene	Lin2		128960		237	250	-5.3	20.0
PETN	Ave	72212	73750		2550	2500	2.1	20.0
1,2-Dinitrobenzene	Ave	130410	129976		249	250	-0.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671268/60 Calibration Date: 10/17/2024 10:51

Instrument ID: CHHPLC_X3 Calib Start Date: 10/04/2024 16:59

GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 10/04/2024 19:55

Lab File ID: 10160060.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.57	6.42	6.72
RDX	7.50	7.34	7.64
Picric acid	7.90	7.74	8.04
1,3,5-Trinitrobenzene	8.47	8.32	8.62
1,3-Dinitrobenzene	9.03	8.87	9.17
Nitrobenzene	9.34	9.19	9.49
3,5-Dinitroaniline	9.54	9.40	9.70
Tetryl	9.66	9.51	9.81
Nitroglycerin	10.11	9.96	10.26
2,4,6-Trinitrotoluene	10.46	10.36	10.56
4-Amino-2,6-dinitrotoluene	10.62	10.52	10.72
2-Amino-4,6-dinitrotoluene	10.85	10.75	10.95
2,6-Dinitrotoluene	10.99	10.89	11.09
2,4-Dinitrotoluene	11.13	11.04	11.24
2-Nitrotoluene	11.83	11.68	11.98
4-Nitrotoluene	12.20	12.05	12.35
3-Nitrotoluene	12.70	12.54	12.84
PETN	13.77	13.60	13.90
1,2-Dinitrobenzene	8.36	8.21	8.51

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160060.D
 Lims ID: CCV INT
 Client ID:
 Sample Type: CCV
 Inject. Date: 17-Oct-2024 10:51:23 ALS Bottle#: 7 Worklist Smp#: 60
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV INT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub26
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:59 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.572	6.567	0.005	24082	0.2500	0.2492	
8 RDX	1	7.499	7.494	0.005	26641	0.2500	0.2525	
9 2,4,6-Trinitrophenol	1	7.899	7.894	0.005	19285	0.2500	0.2557	
\$ 10 1,2-Dinitrobenzene	1	8.359	8.360	-0.001	32494	0.2500	0.2492	
11 1,3,5-Trinitrobenzene	1	8.465	8.467	-0.002	54086	0.2500	0.2488	
12 1,3-Dinitrobenzene	1	9.025	9.020	0.005	74392	0.2500	0.2494	
13 Nitrobenzene	1	9.338	9.340	-0.002	45910	0.2500	0.2352	
14 3,5-Dinitroaniline	1	9.538	9.547	-0.009	58631	0.2500	0.2518	
15 Tetryl	1	9.658	9.660	-0.002	41324	0.2500	0.2419	
16 Nitroglycerin	2	10.105	10.107	-0.002	165812	2.50	2.58	
17 2,4,6-Trinitrotoluene	1	10.458	10.460	-0.002	53950	0.2500	0.2483	
18 4-Amino-2,6-dinitrotoluene	1	10.618	10.620	-0.002	37313	0.2500	0.2553	
19 2-Amino-4,6-dinitrotoluene	1	10.845	10.853	-0.008	50811	0.2500	0.2484	
20 2,6-Dinitrotoluene	1	10.985	10.987	-0.002	36099	0.2500	0.2560	
21 2,4-Dinitrotoluene	1	11.132	11.140	-0.008	72480	0.2500	0.2484	
22 o-Nitrotoluene	1	11.832	11.833	-0.001	29112	0.2500	0.2320	
23 p-Nitrotoluene	1	12.198	12.200	-0.002	25933	0.2500	0.2389	
24 m-Nitrotoluene	1	12.698	12.693	0.005	32240	0.2500	0.2368	
25 PETN	2	13.765	13.753	0.012	184375	2.50	2.55	

Reagents:

8330IntermStk_00083

Amount Added: 25.00

Units: uL

Report Date: 17-Oct-2024 12:01:00

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160060.d

Injection Date: 17-Oct-2024 10:51:23

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 60

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

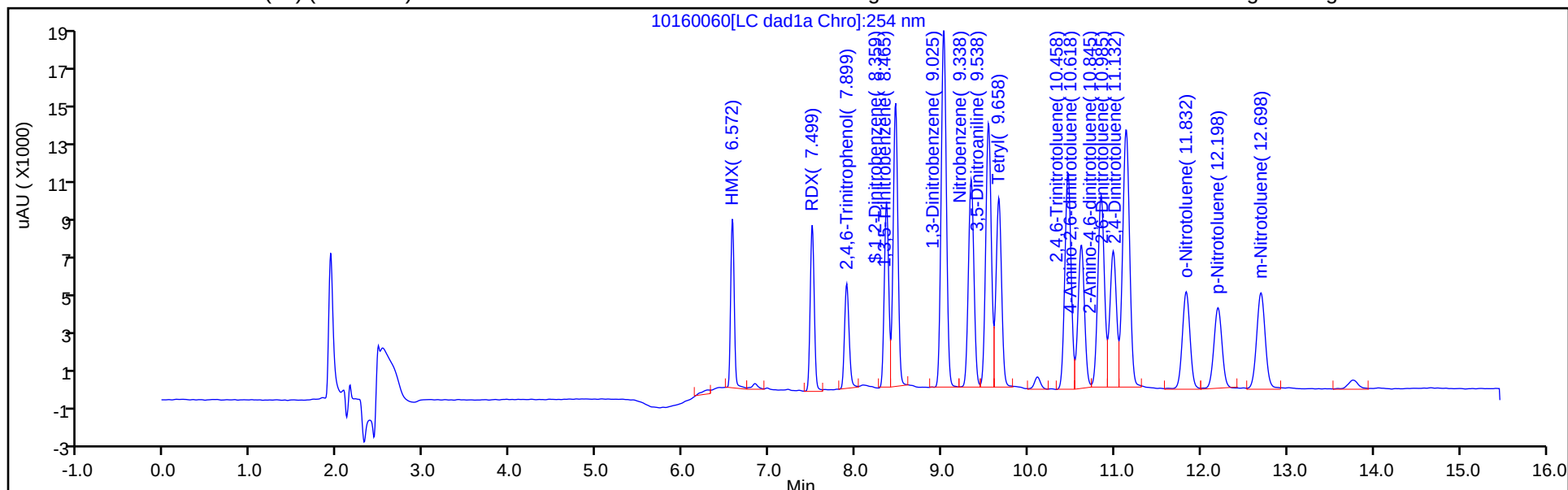
ALS Bottle#: 7

Method: 8330_X3

Limit Group: GCSV - 8330

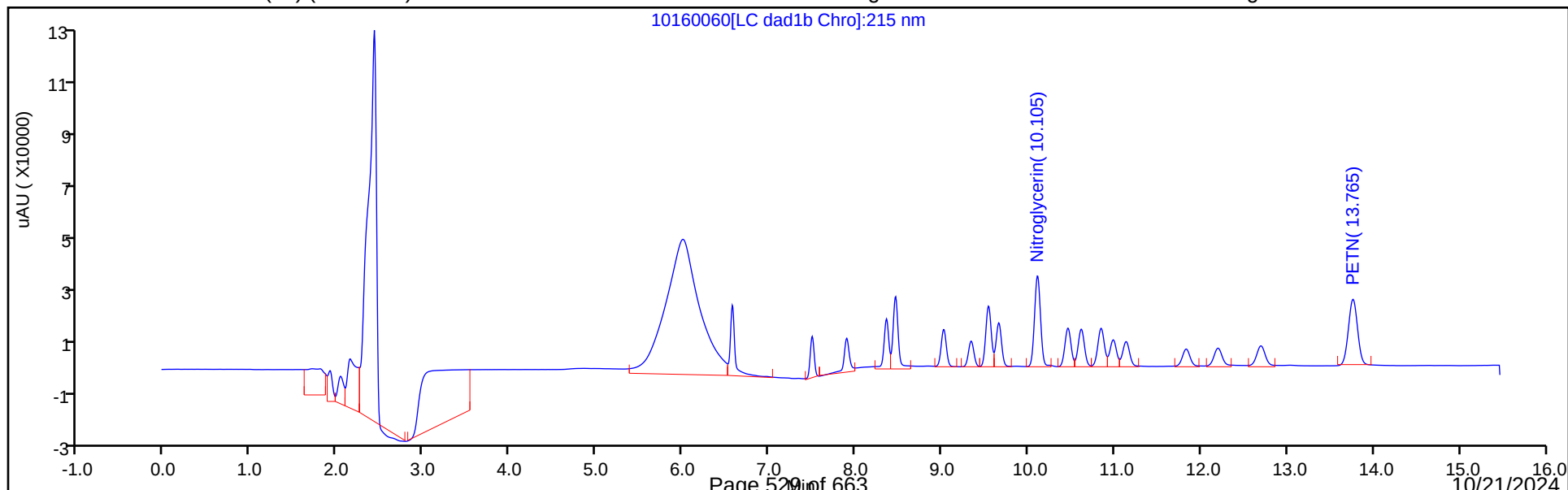
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: ICV 280-663590/19 Calibration Date: 08/11/2024 01:36

Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22

GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01

Lab File ID: 08100019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	180338	168968		468	500	-6.3	20.0
Picric acid	Ave	149859	166618		556	500	11.2	20.0
RDX	Ave	220357	203186		461	500	-7.8	20.0
Nitrobenzene	Ave	376935	397300		527	500	5.4	20.0
3,5-Dinitroaniline	Lin2		456342		523	500	4.6	20.0
1,3-Dinitrobenzene	Ave	585242	609262		521	500	4.1	20.0
Nitroglycerin	Ave	128152	132206		5160	5000	3.2	20.0
2-Nitrotoluene	Ave	235862	244000		517	500	3.5	20.0
4-Nitrotoluene	Ave	211671	217406		514	500	2.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	278588	293012		526	500	5.2	20.0
3-Nitrotoluene	Ave	258224	265526		514	500	2.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	389409	396736		509	500	1.9	20.0
1,3,5-Trinitrobenzene	Ave	423794	469618		554	500	10.8	20.0
2,6-Dinitrotoluene	Ave	284676	280972		493	500	-1.3	20.0
2,4-Dinitrotoluene	Ave	568510	561942		494	500	-1.2	20.0
Tetryl	Ave	283338	335136		591	500	18.3	20.0
2,4,6-Trinitrotoluene	Ave	416224	416670		501	500	0.1	20.0
PETN	Ave	135807	144523		5320	5000	6.4	20.0
1,2-Dinitrobenzene	Ave	262489	279208		532	500	6.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: ICV 280-663590/19 Calibration Date: 08/11/2024 01:36
 Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01
 Lab File ID: 08100019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.32	6.17	6.47
Picric acid	7.78	7.66	7.96
RDX	8.44	8.29	8.59
Nitrobenzene	10.99	10.83	11.13
3,5-Dinitroaniline	13.48	13.32	13.62
1,3-Dinitrobenzene	13.84	13.67	13.97
Nitroglycerin	14.51	14.33	14.63
2-Nitrotoluene	15.02	14.84	15.14
4-Nitrotoluene	15.25	15.07	15.37
4-Amino-2,6-dinitrotoluene	15.59	15.41	15.71
3-Nitrotoluene	16.08	15.89	16.19
2-Amino-4,6-dinitrotoluene	16.34	16.16	16.46
1,3,5-Trinitrobenzene	16.56	16.39	16.69
2,6-Dinitrotoluene	17.69	17.51	17.81
2,4-Dinitrotoluene	18.12	17.94	18.24
Tetryl	21.14	20.95	21.25
2,4,6-Trinitrotoluene	22.01	21.83	22.13
PETN	23.51	23.31	23.61
1,2-Dinitrobenzene	11.82	11.65	11.95

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100019.D
 Lims ID: ICV INT
 Client ID:
 Sample Type: ICV
 Inject. Date: 11-Aug-2024 01:36:30 ALS Bottle#: 19 Worklist Smp#: 19
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: ICV INT
 Operator ID: JZ Instrument ID: CHHPLC_X5
 Sublist:
 Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\8330_X5_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 13-Aug-2024 15:55:09 Calib Date: 11-Aug-2024 01:01:34
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100018.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
 Process Host: CTX1604

First Level Reviewer: LV5D

Date: 13-Aug-2024 15:15:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.316	6.324	-0.008	84484	0.5000	0.4685	
7 2,4,6-Trinitrophenol	1	7.776	7.810	-0.034	83309	0.5000	0.5559	
8 RDX	1	8.443	8.437	0.006	101593	0.5000	0.4610	
9 Nitrobenzene	1	10.989	10.983	0.006	198650	0.5000	0.5270	
\$ 10 1,2-Dinitrobenzene	1	11.816	11.797	0.019	139604	0.5000	0.5318	
11 3,5-Dinitroaniline	1	13.483	13.470	0.013	228171	0.5000	0.5230	
12 1,3-Dinitrobenzene	1	13.836	13.823	0.013	304631	0.5000	0.5205	
13 Nitroglycerin	2	14.509	14.477	0.032	661029	5.00	5.16	
14 o-Nitrotoluene	1	15.023	14.990	0.033	122000	0.5000	0.5173	
16 p-Nitrotoluene	1	15.249	15.223	0.026	108703	0.5000	0.5135	
17 4-Amino-2,6-dinitrotoluene	1	15.589	15.557	0.032	146506	0.5000	0.5259	
18 m-Nitrotoluene	1	16.076	16.043	0.033	132763	0.5000	0.5141	
19 2-Amino-4,6-dinitrotoluene	1	16.336	16.310	0.026	198368	0.5000	0.5094	
20 1,3,5-Trinitrobenzene	1	16.563	16.537	0.026	234809	0.5000	0.5541	
21 2,6-Dinitrotoluene	1	17.689	17.657	0.032	140486	0.5000	0.4935	
22 2,4-Dinitrotoluene	1	18.123	18.090	0.033	280971	0.5000	0.4942	
23 Tetryl	1	21.136	21.097	0.039	167568	0.5000	0.5914	M
24 2,4,6-Trinitrotoluene	1	22.010	21.977	0.033	208335	0.5000	0.5005	M
25 PETN	2	23.510	23.457	0.053	722615	5.00	5.32	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8330Surrogate_00158

Amount Added: 50.00

Units: uL

8330 LCS_00136

Amount Added: 50.00

Units: uL

Report Date: 13-Aug-2024 15:55:15

Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100019.D

Injection Date: 11-Aug-2024 01:36:30

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: ICV INT

Worklist Smp#: 19

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

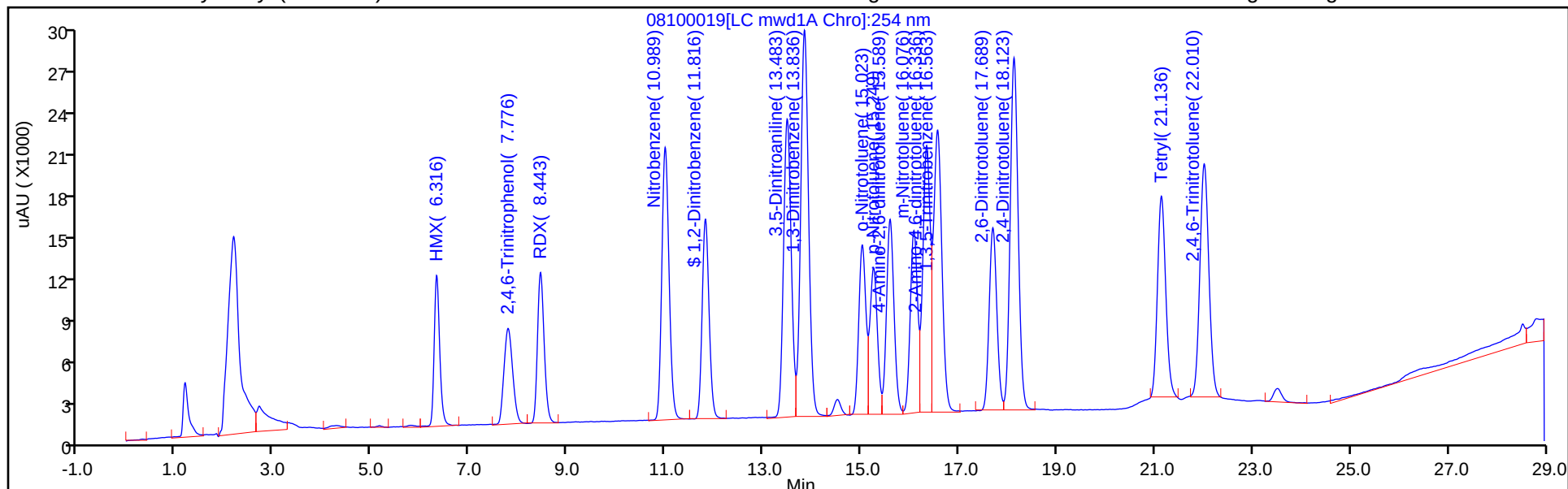
ALS Bottle#: 19

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

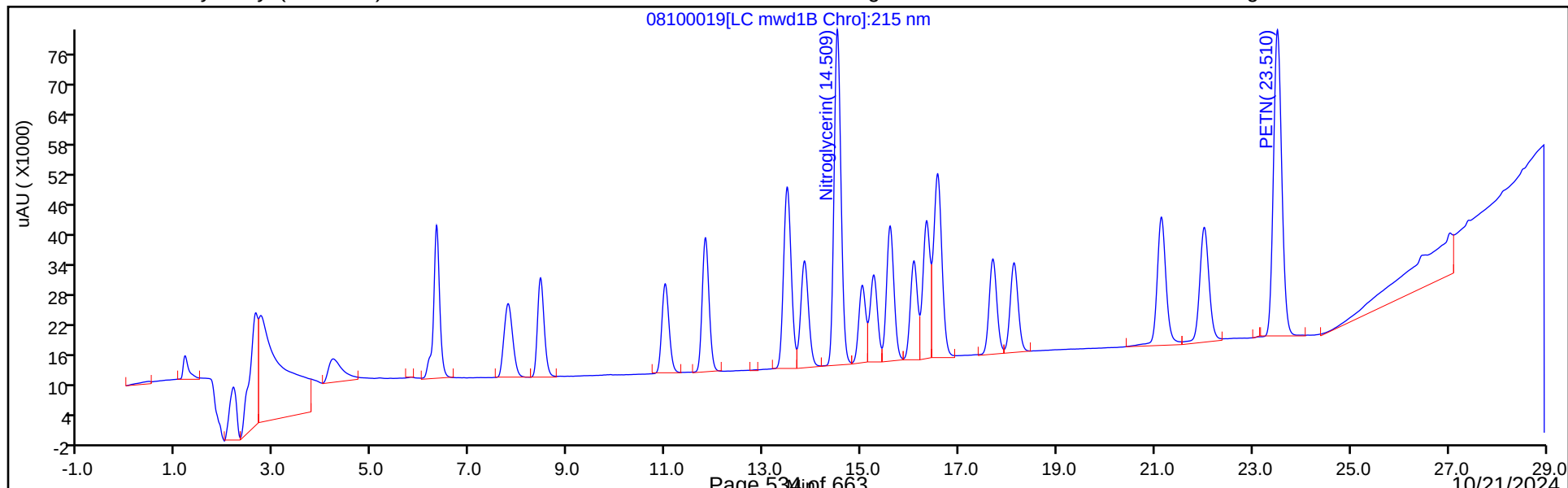
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

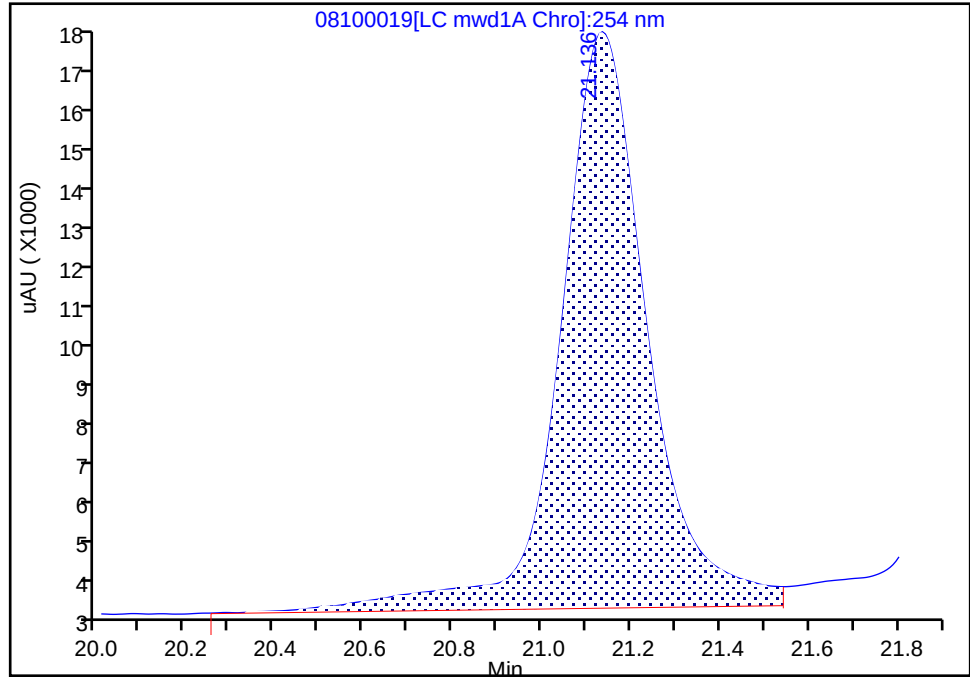
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100019.D
Injection Date: 11-Aug-2024 01:36:30 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

23 Tetryl, CAS: 479-45-8

Signal: 1

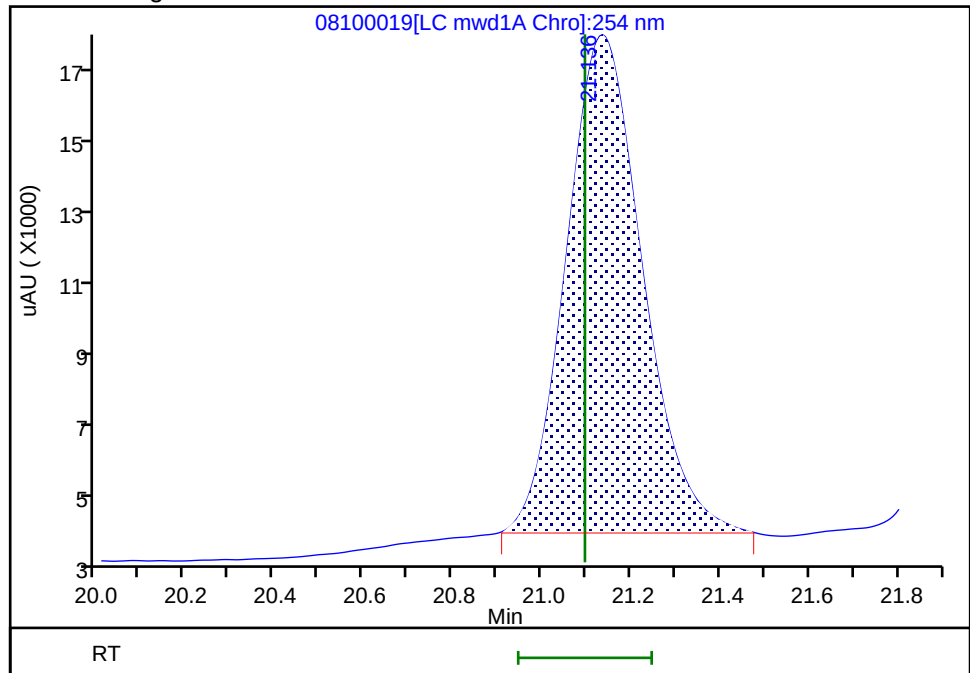
RT: 21.14
Area: 201204
Amount: 0.710356
Amount Units: ug/ml

Processing Integration Results



RT: 21.14
Area: 167568
Amount: 0.591408
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:17:38 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

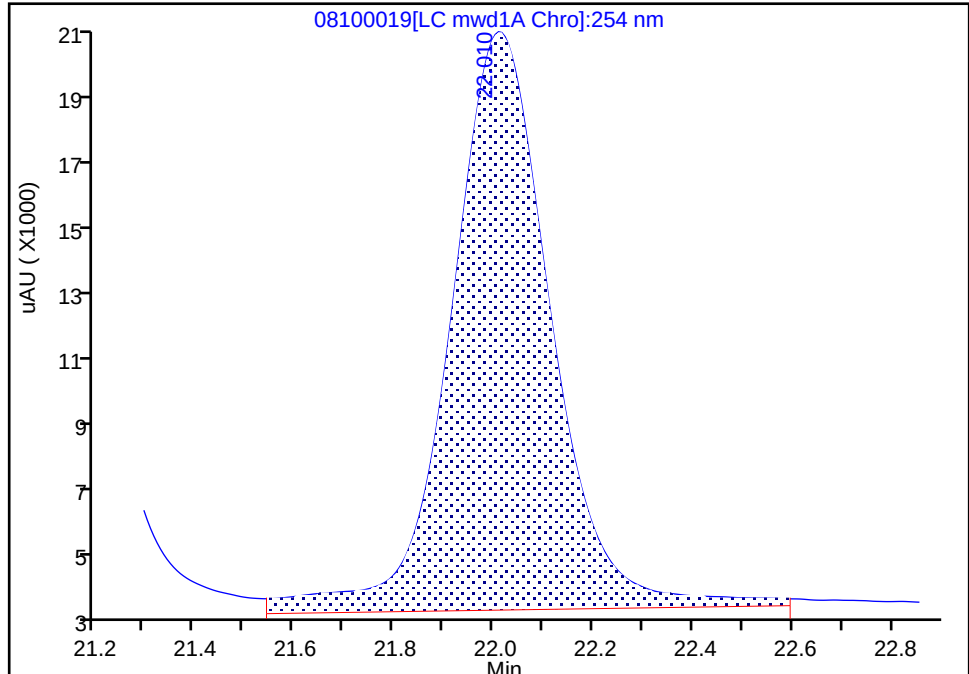
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100019.D
Injection Date: 11-Aug-2024 01:36:30 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

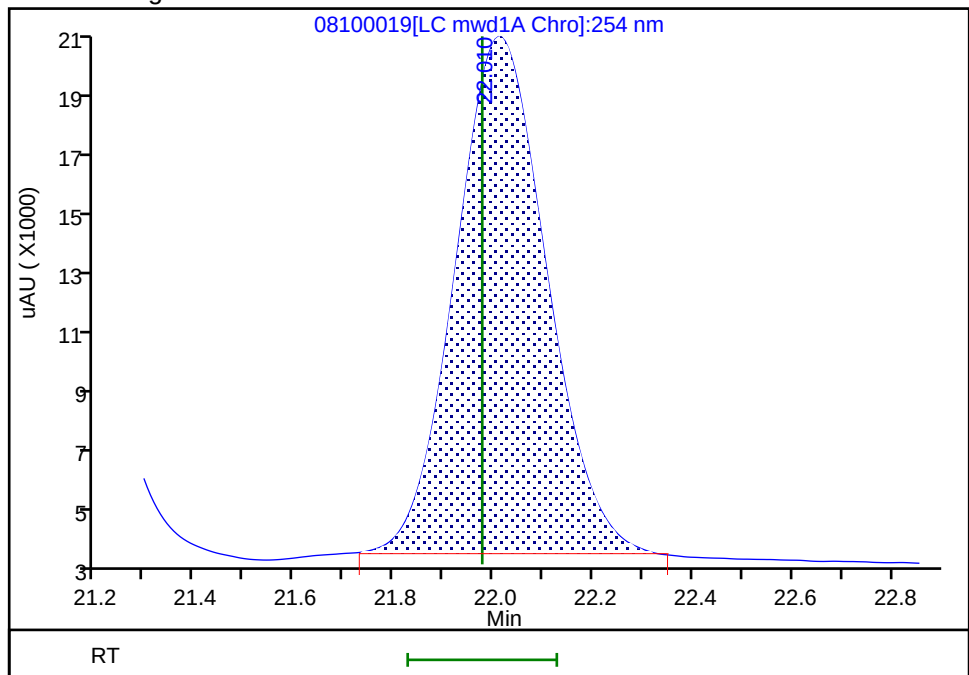
RT: 22.01
Area: 238659
Amount: 0.575375
Amount Units: ug/ml

Processing Integration Results



RT: 22.01
Area: 208335
Amount: 0.500536
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 13-Aug-2024 15:17:42 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: CCV 280-671457/17 Calibration Date: 10/17/2024 21:44
 Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01
 Lab File ID: 10170017.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	180338	177096		246	250	-1.8	20.0
Picric acid	Ave	149859	146804		245	250	-2.0	20.0
RDX	Ave	220357	206408		234	250	-6.3	20.0
Nitrobenzene	Ave	376935	369696		245	250	-1.9	20.0
3,5-Dinitroaniline	Lin2		445636		255	250	2.0	20.0
1,3-Dinitrobenzene	Ave	585242	577412		247	250	-1.3	20.0
Nitroglycerin	Ave	128152	126375		2470	2500	-1.4	20.0
2-Nitrotoluene	Ave	235862	234744		249	250	-0.5	20.0
4-Nitrotoluene	Ave	211671	210268		248	250	-0.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	278588	280796		252	250	0.8	20.0
3-Nitrotoluene	Ave	258224	230436		223	250	-10.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	389409	410132		263	250	5.3	20.0
1,3,5-Trinitrobenzene	Ave	423794	416460		246	250	-1.7	20.0
2,6-Dinitrotoluene	Ave	284676	269336		237	250	-5.4	20.0
2,4-Dinitrotoluene	Ave	568510	546128		240	250	-3.9	20.0
Tetryl	Ave	283338	312788		276	250	10.4	20.0
2,4,6-Trinitrotoluene	Ave	416224	416208		250	250	0.0	20.0
PETN	Ave	135807	137336		2530	2500	1.1	20.0
1,2-Dinitrobenzene	Ave	262489	260676		248	250	-0.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: CCV 280-671457/17 Calibration Date: 10/17/2024 21:44
 Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01
 Lab File ID: 10170017.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.24	6.09	6.39
Picric acid	7.62	7.55	7.85
RDX	8.33	8.17	8.47
Nitrobenzene	10.89	10.73	11.03
3,5-Dinitroaniline	13.31	13.17	13.47
1,3-Dinitrobenzene	13.68	13.54	13.84
Nitroglycerin	14.32	14.17	14.47
2-Nitrotoluene	14.86	14.72	15.02
4-Nitrotoluene	15.09	14.95	15.25
4-Amino-2,6-dinitrotoluene	15.39	15.26	15.56
3-Nitrotoluene	15.91	15.77	16.07
2-Amino-4,6-dinitrotoluene	16.11	15.99	16.29
1,3,5-Trinitrobenzene	16.37	16.23	16.53
2,6-Dinitrotoluene	17.49	17.35	17.65
2,4-Dinitrotoluene	17.92	17.78	18.08
Tetryl	20.87	20.74	21.04
2,4,6-Trinitrotoluene	21.76	21.63	21.93
PETN	23.22	23.08	23.38
1,2-Dinitrobenzene	11.67	11.53	11.83

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170017.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-Oct-2024 21:44:15 ALS Bottle#: 7 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:31:58 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.240	6.237	0.003	44274	0.2500	0.2455	
7 2,4,6-Trinitrophenol	1	7.620	7.704	-0.084	36701	0.2500	0.2449	
8 RDX	1	8.327	8.324	0.003	51602	0.2500	0.2342	
9 Nitrobenzene	1	10.887	10.877	0.010	92424	0.2500	0.2452	
\$ 10 1,2-Dinitrobenzene	1	11.673	11.677	-0.004	65169	0.2500	0.2483	
11 3,5-Dinitroaniline	1	13.307	13.317	-0.010	111409	0.2500	0.2551	
12 1,3-Dinitrobenzene	1	13.680	13.691	-0.011	144353	0.2500	0.2467	
13 Nitroglycerin	2	14.320	14.324	-0.004	315937	2.50	2.47	
14 o-Nitrotoluene	1	14.860	14.871	-0.011	58686	0.2500	0.2488	
16 p-Nitrotoluene	1	15.087	15.097	-0.010	52567	0.2500	0.2483	
17 4-Amino-2,6-dinitrotoluene	1	15.393	15.411	-0.018	70199	0.2500	0.2520	
18 m-Nitrotoluene	1	15.907	15.917	-0.010	57609	0.2500	0.2231	
19 2-Amino-4,6-dinitrotoluene	1	16.113	16.137	-0.024	102533	0.2500	0.2633	
20 1,3,5-Trinitrobenzene	1	16.373	16.384	-0.011	104115	0.2500	0.2457	
21 2,6-Dinitrotoluene	1	17.487	17.504	-0.017	67334	0.2500	0.2365	
22 2,4-Dinitrotoluene	1	17.920	17.931	-0.011	136532	0.2500	0.2402	
23 Tetryl	1	20.867	20.891	-0.024	78197	0.2500	0.2760	
24 2,4,6-Trinitrotoluene	1	21.760	21.777	-0.017	104052	0.2500	0.2500	
25 PETN	2	23.220	23.231	-0.011	343339	2.50	2.53	

Reagents:

8330IntermStk_00082

Amount Added: 25.00

Units: uL

Report Date: 18-Oct-2024 12:31:59

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170017.D

Injection Date: 17-Oct-2024 21:44:15

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 17

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

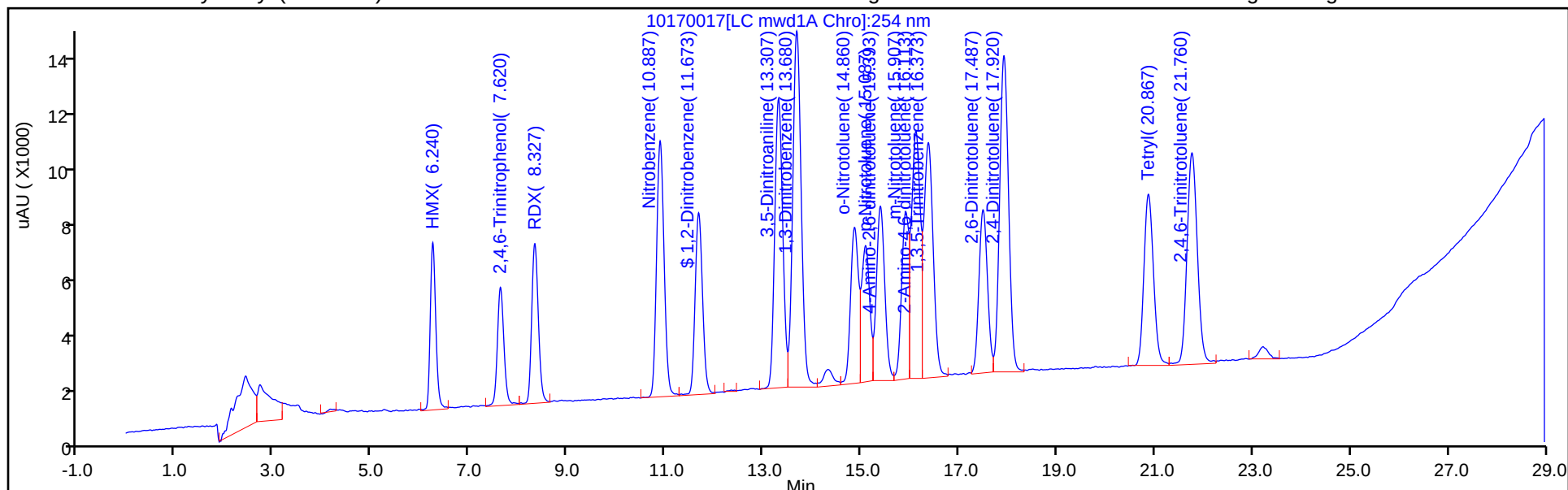
ALS Bottle#: 7

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

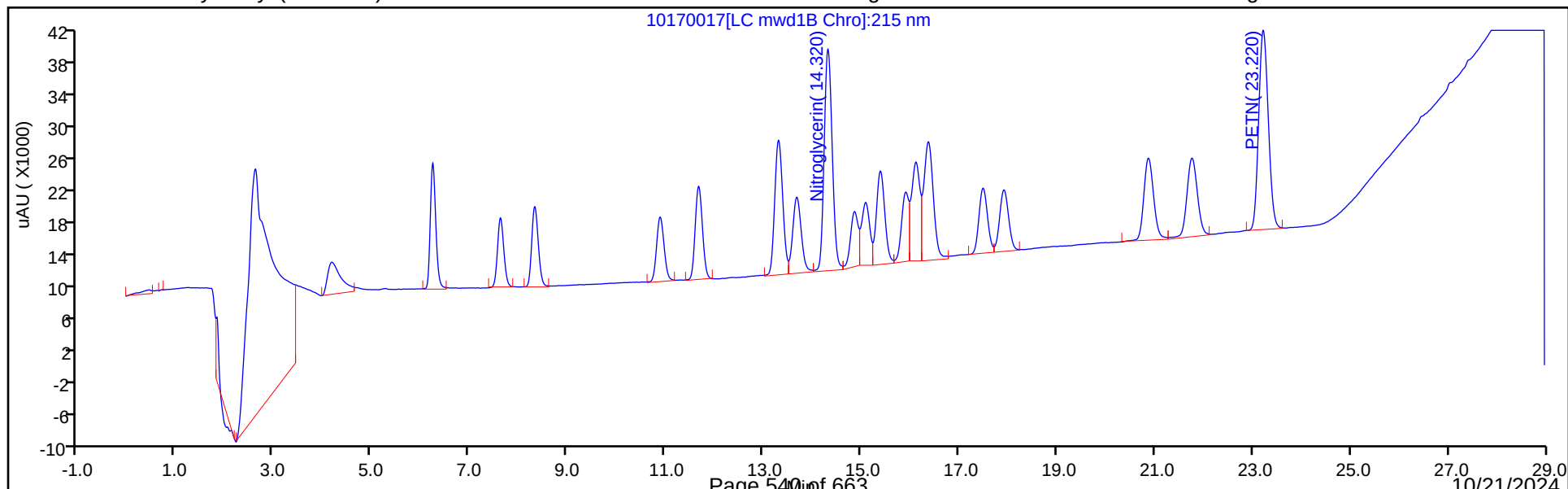
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Lab Sample ID: CCV 280-671457/26 Calibration Date: 10/18/2024 02:58

Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22

GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01

Lab File ID: 10170026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	180338	176780		245	250	-2.0	20.0
Picric acid	Ave	149859	145264		242	250	-3.1	20.0
RDX	Ave	220357	206124		234	250	-6.5	20.0
Nitrobenzene	Ave	376935	361504		240	250	-4.1	20.0
3,5-Dinitroaniline	Lin2		441308		253	250	1.1	20.0
1,3-Dinitrobenzene	Ave	585242	575464		246	250	-1.7	20.0
Nitroglycerin	Ave	128152	126166		2460	2500	-1.5	20.0
2-Nitrotoluene	Ave	235862	233004		247	250	-1.2	20.0
4-Nitrotoluene	Ave	211671	204820		242	250	-3.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	278588	278432		250	250	-0.0	20.0
3-Nitrotoluene	Ave	258224	227580		220	250	-11.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	389409	405312		260	250	4.1	20.0
1,3,5-Trinitrobenzene	Ave	423794	421704		249	250	-0.5	20.0
2,6-Dinitrotoluene	Ave	284676	272216		239	250	-4.4	20.0
2,4-Dinitrotoluene	Ave	568510	545624		240	250	-4.0	20.0
Tetryl	Ave	283338	317204		280	250	12.0	20.0
2,4,6-Trinitrotoluene	Ave	416224	415300		249	250	-0.2	20.0
PETN	Ave	135807	140918		2590	2500	3.8	20.0
1,2-Dinitrobenzene	Ave	262489	259800		247	250	-1.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-197842-1
 SDG No.: _____
 Lab Sample ID: CCV 280-671457/26 Calibration Date: 10/18/2024 02:58
 Instrument ID: CHHPLC_X5 Calib Start Date: 08/10/2024 20:22
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 08/11/2024 01:01
 Lab File ID: 10170026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.24	6.09	6.39
Picric acid	7.62	7.55	7.85
RDX	8.33	8.17	8.47
Nitrobenzene	10.89	10.73	11.03
3,5-Dinitroaniline	13.32	13.17	13.47
1,3-Dinitrobenzene	13.69	13.54	13.84
Nitroglycerin	14.33	14.17	14.47
2-Nitrotoluene	14.87	14.72	15.02
4-Nitrotoluene	15.09	14.95	15.25
4-Amino-2,6-dinitrotoluene	15.41	15.26	15.56
3-Nitrotoluene	15.92	15.77	16.07
2-Amino-4,6-dinitrotoluene	16.13	15.99	16.29
1,3,5-Trinitrobenzene	16.39	16.23	16.53
2,6-Dinitrotoluene	17.51	17.35	17.65
2,4-Dinitrotoluene	17.93	17.78	18.08
Tetryl	20.90	20.74	21.04
2,4,6-Trinitrotoluene	21.79	21.63	21.93
PETN	23.25	23.08	23.38
1,2-Dinitrobenzene	11.68	11.53	11.83

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170026.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-Oct-2024 02:58:33 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-Oct-2024 12:32:08 Calib Date: 11-Aug-2024 06:16:04
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240810-136368.b\08100027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1637

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.240	6.237	0.003	44195	0.2500	0.2451	
7 2,4,6-Trinitrophenol	1	7.620	7.704	-0.084	36316	0.2500	0.2423	
8 RDX	1	8.327	8.324	0.003	51531	0.2500	0.2339	
9 Nitrobenzene	1	10.886	10.877	0.009	90376	0.2500	0.2398	
\$ 10 1,2-Dinitrobenzene	1	11.680	11.677	0.003	64950	0.2500	0.2474	
11 3,5-Dinitroaniline	1	13.320	13.317	0.003	110327	0.2500	0.2526	
12 1,3-Dinitrobenzene	1	13.693	13.691	0.002	143866	0.2500	0.2458	
13 Nitroglycerin	2	14.326	14.324	0.002	315416	2.50	2.46	
14 o-Nitrotoluene	1	14.873	14.871	0.002	58251	0.2500	0.2470	
16 p-Nitrotoluene	1	15.093	15.097	-0.004	51205	0.2500	0.2419	
17 4-Amino-2,6-dinitrotoluene	1	15.406	15.411	-0.005	69608	0.2500	0.2499	
18 m-Nitrotoluene	1	15.920	15.917	0.003	56895	0.2500	0.2203	
19 2-Amino-4,6-dinitrotoluene	1	16.133	16.137	-0.004	101328	0.2500	0.2602	
20 1,3,5-Trinitrobenzene	1	16.386	16.384	0.002	105426	0.2500	0.2488	
21 2,6-Dinitrotoluene	1	17.506	17.504	0.002	68054	0.2500	0.2391	
22 2,4-Dinitrotoluene	1	17.933	17.931	0.002	136406	0.2500	0.2399	
23 Tetryl	1	20.900	20.891	0.009	79301	0.2500	0.2799	
24 2,4,6-Trinitrotoluene	1	21.793	21.777	0.016	103825	0.2500	0.2494	
25 PETN	2	23.247	23.231	0.016	352295	2.50	2.59	

Reagents:

8330IntermStk_00082

Amount Added: 25.00

Units: uL

Report Date: 18-Oct-2024 12:32:09

Chrom Revision: 2.3 17-Oct-2024 11:42:22

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20241017-138731.b\10170026.D

Injection Date: 18-Oct-2024 02:58:33

Instrument ID: CHHPLC_X5

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 26

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

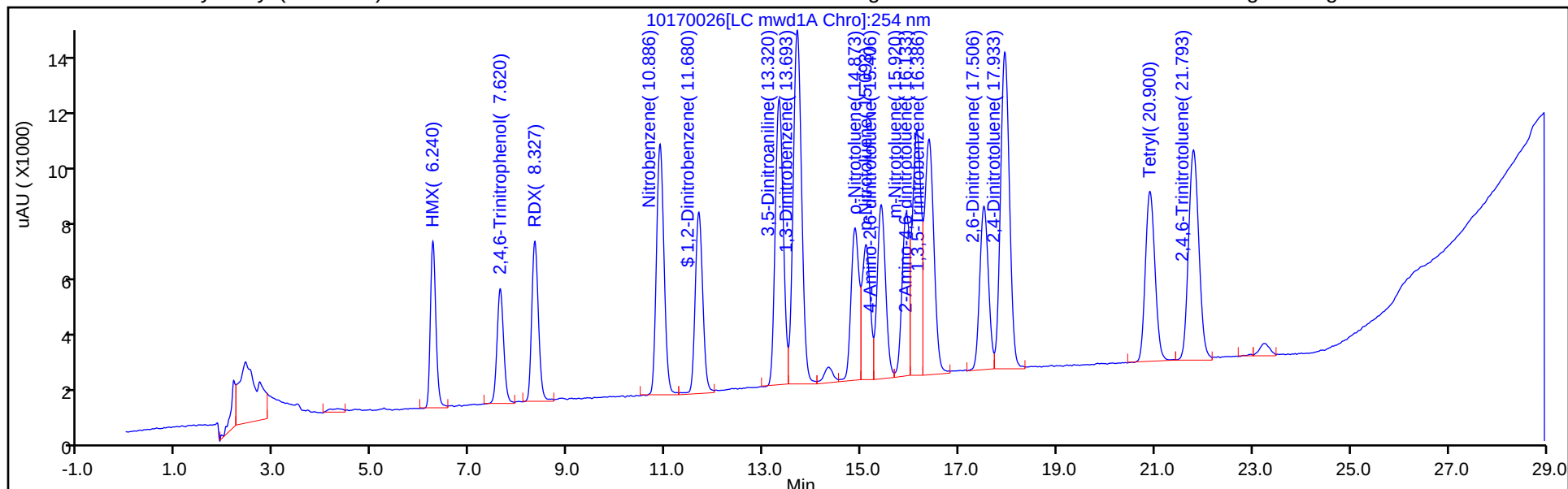
ALS Bottle#: 7

Method: 8330_X5_Luna

Limit Group: GCSV - 8330

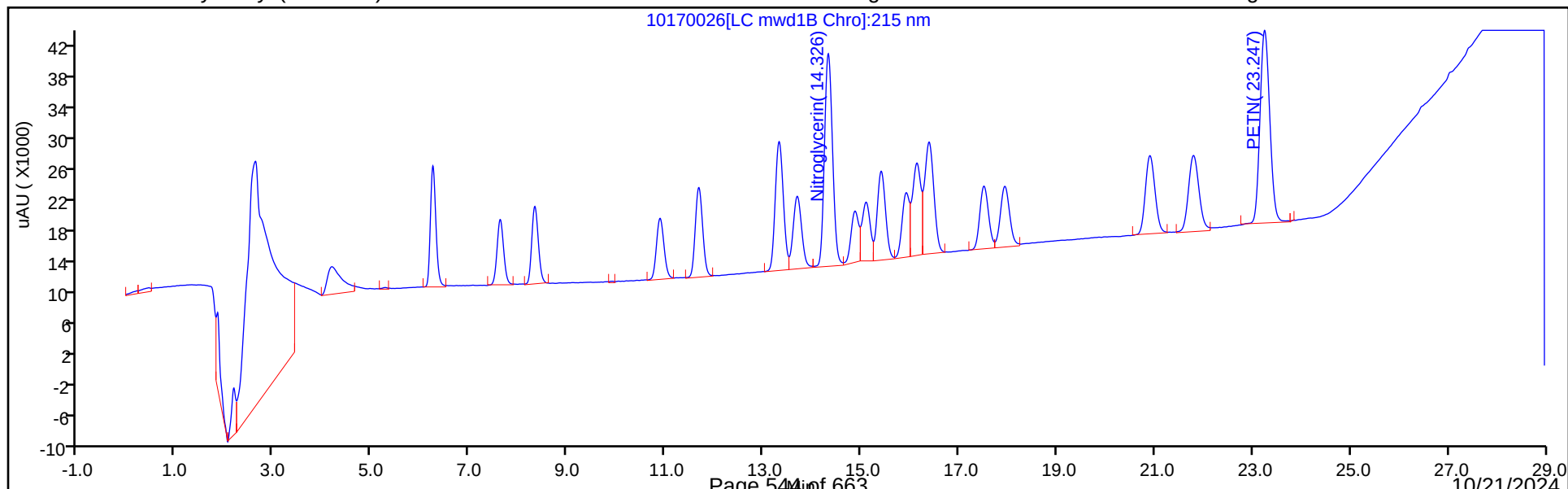
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 280-671072/1-A</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160039.D</u>
Analysis Method: <u>8330B</u>	Date Collected: _____
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/17/2024 03:10</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	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	0.35	U	0.40	0.35	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
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
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	101		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160039.D
Lims ID: MB 280-671072/1-A
Client ID:
Sample Type: MB
Inject. Date: 17-Oct-2024 03:10:30 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-671072/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:47:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
1 Triamine Trinitrobenzene	1		2.444				ND	
2 2,6-diamino-4-nitrotoluene	1		6.407				ND	
3 TNX	1		6.448				ND	
4 HMX	1		6.567				ND	
5 2,4-diamino-6-nitrotoluene	1		6.582				ND	
6 DNX	1		6.762				ND	
7 MNX	1		7.162				ND	
8 RDX	1		7.494				ND	
9 2,4,6-Trinitrophenol	1		7.894				ND	
\$ 10 1,2-Dinitrobenzene	1	8.360	8.360	0.000	26348	0.2000	0.2020	U
11 1,3,5-Trinitrobenzene	1		8.467				ND	
12 1,3-Dinitrobenzene	1		9.020				ND	
13 Nitrobenzene	1		9.340				ND	
14 3,5-Dinitroaniline	1		9.547				ND	
15 Tetryl	1		9.660				ND	
16 Nitroglycerin	2		10.107				ND	
17 2,4,6-Trinitrotoluene	1		10.460				ND	
18 4-Amino-2,6-dinitrotoluene	1		10.620				ND	
19 2-Amino-4,6-dinitrotoluene	1		10.853				ND	
20 2,6-Dinitrotoluene	1		10.987				ND	
21 2,4-Dinitrotoluene	1		11.140				ND	
22 o-Nitrotoluene	1		11.833				ND	
23 p-Nitrotoluene	1		12.200				ND	
24 m-Nitrotoluene	1		12.693				ND	
25 PETN	2		13.753				ND	
26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend
Processing Flags

Review Flags

U - Marked Undetected

Report Date: 17-Oct-2024 12:00:40

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160039.d

Injection Date: 17-Oct-2024 03:10:30

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: MB 280-671072/1-A

Worklist Smp#: 39

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

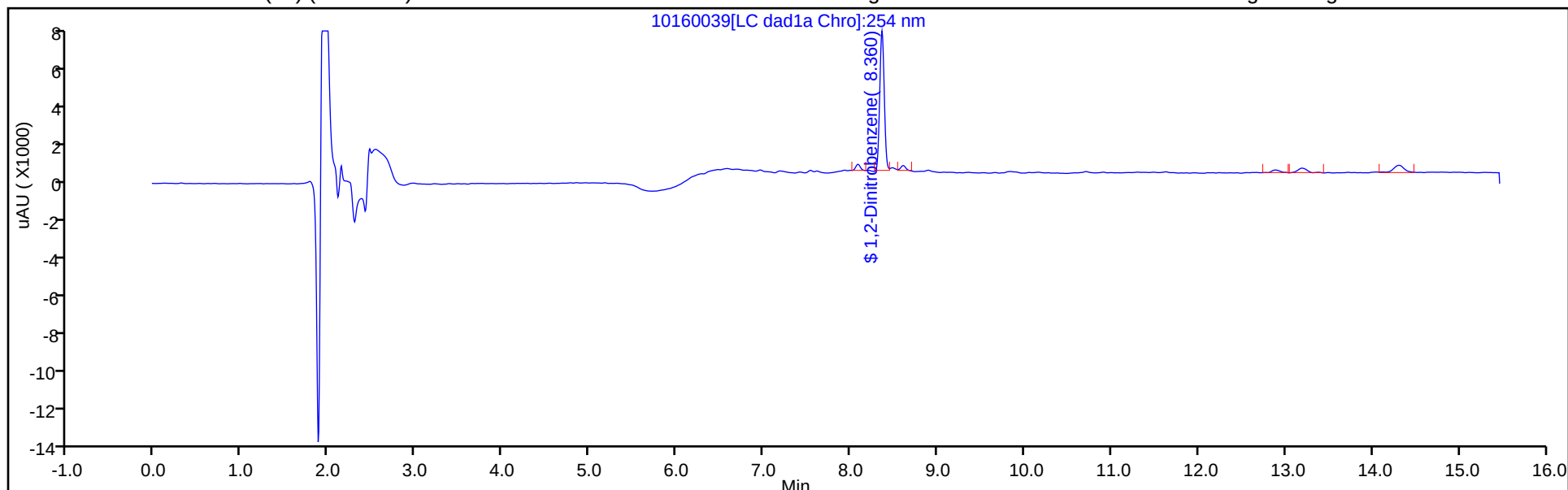
ALS Bottle#: 39

Method: 8330_X3

Limit Group: GCSV - 8330

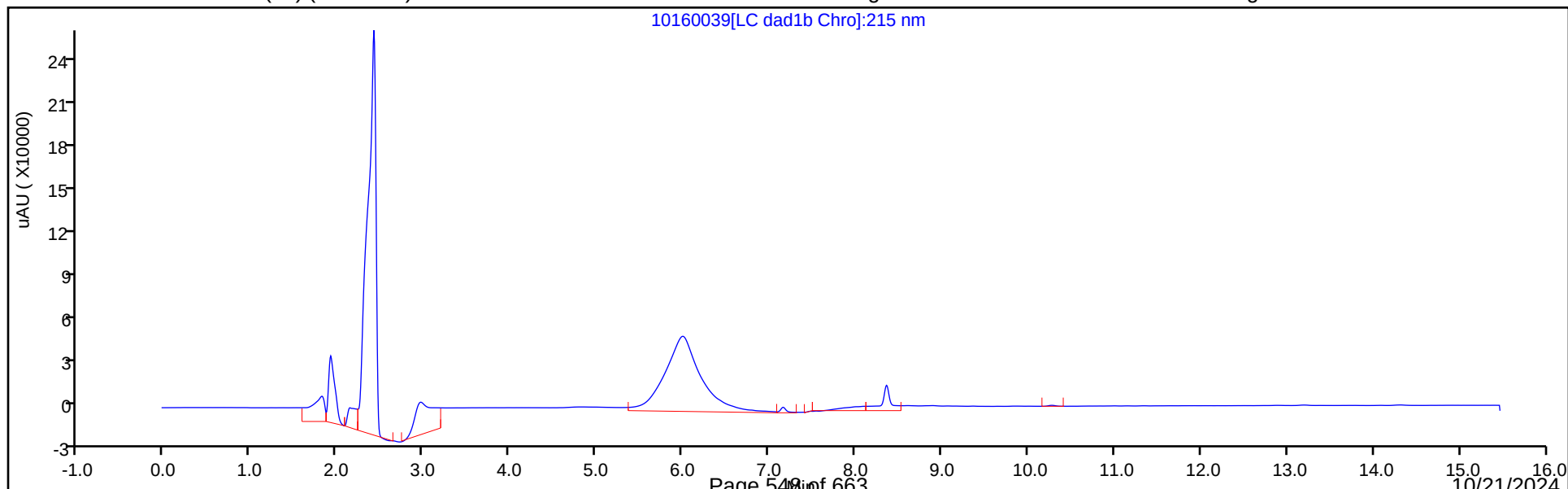
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160039.D
Lims ID: MB 280-671072/1-A
Client ID:
Sample Type: MB
Inject. Date: 17-Oct-2024 03:10:30 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-671072/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:47:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2020	101.02

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160039.d

Injection Date: 17-Oct-2024 03:10:30

Instrument ID: CHHPLC_X3

Lims ID: MB 280-671072/1-A

Client ID:

Operator ID: JZ

ALS Bottle#:

39

Worklist Smp#:

39

Injection Vol: 100.0 ul

Dil. Factor:

1.0000

Method: 8330_X3

Limit Group:

GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

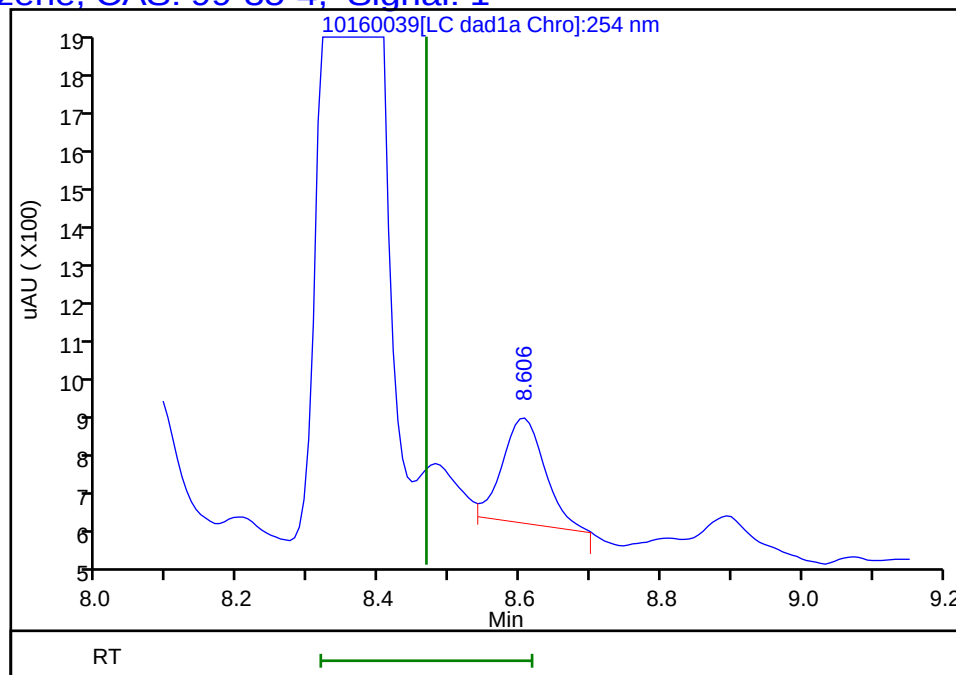
LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.61

Response: 1093

Amount: 0.005029



Reviewer: LV5D, 17-Oct-2024 11:47:44

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Denver</u>	Job No.: <u>280-197842-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 280-671072/2-A</u>
Matrix: <u>Water</u>	Lab File ID: <u>10160040.D</u>
Analysis Method: <u>8330B</u>	Date Collected: _____
Extraction Method: <u>3535</u>	Date Extracted: <u>10/16/2024 10:50</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/17/2024 03:32</u>
Con. Extract Vol.: <u>5 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>100 (uL)</u>	GC Column: <u>UltraCarb5uODS</u> ID: <u>4.6 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	
Analysis Batch No.: <u>671268</u>	Units: <u>ug/L</u>
Preparation Batch No.: <u>671072</u>	Instrument ID: <u>CHHPLC_X3</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.27	M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.12		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.05		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.02		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.03		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.06		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.62		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.70		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.03		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.69		0.41	0.40	0.10
2691-41-0	HMX	1.94		0.21	0.20	0.088
98-95-3	Nitrobenzene	1.84		0.21	0.20	0.091
55-63-0	Nitroglycerin	23.3		2.1	2.0	0.92
78-11-5	PETN	22.4		1.1	1.0	0.45
121-82-4	RDX	2.07	M	0.21	0.20	0.052
479-45-8	Tetryl	2.11		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160040.D
 Lims ID: LCS 280-671072/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 17-Oct-2024 03:32:25 ALS Bottle#: 40 Worklist Smp#: 40
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: LCS 280-671072/2-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:48:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.570	6.567	0.003	18731	0.2000	0.1938	
8 RDX	1	7.497	7.494	0.003	21915	0.2000	0.2074	M
9 2,4,6-Trinitrophenol	1	7.890	7.894	-0.004	17746	0.2000	0.2353	M
\$ 10 1,2-Dinitrobenzene	1	8.357	8.360	-0.003	26449	0.2000	0.2028	
11 1,3,5-Trinitrobenzene	1	8.464	8.467	-0.003	49285	0.2000	0.2268	M
12 1,3-Dinitrobenzene	1	9.024	9.020	0.004	63139	0.2000	0.2117	
13 Nitrobenzene	1	9.343	9.340	0.003	35828	0.2000	0.1836	
14 3,5-Dinitroaniline	1	9.543	9.547	-0.004	47432	0.2000	0.2037	
15 Tetryl	1	9.663	9.660	0.003	35996	0.2000	0.2108	
16 Nitroglycerin	2	10.103	10.107	-0.004	150062	2.00	2.33	
17 2,4,6-Trinitrotoluene	1	10.457	10.460	-0.003	44485	0.2000	0.2047	
18 4-Amino-2,6-dinitrotoluene	1	10.610	10.620	-0.010	29795	0.2000	0.2030	
19 2-Amino-4,6-dinitrotoluene	1	10.837	10.853	-0.016	42042	0.2000	0.2056	
20 2,6-Dinitrotoluene	1	10.970	10.987	-0.017	28722	0.2000	0.2034	
21 2,4-Dinitrotoluene	1	11.123	11.140	-0.017	58995	0.2000	0.2022	
22 o-Nitrotoluene	1	11.817	11.833	-0.016	20305	0.2000	0.1618	
23 p-Nitrotoluene	1	12.183	12.200	-0.017	18393	0.2000	0.1690	
24 m-Nitrotoluene	1	12.683	12.693	-0.010	23285	0.2000	0.1705	
25 PETN	2	13.743	13.753	-0.010	161979	2.00	2.24	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Report Date: 17-Oct-2024 12:00:41

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160040.d

Injection Date: 17-Oct-2024 03:32:25

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: LCS 280-671072/2-A

Worklist Smp#: 40

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

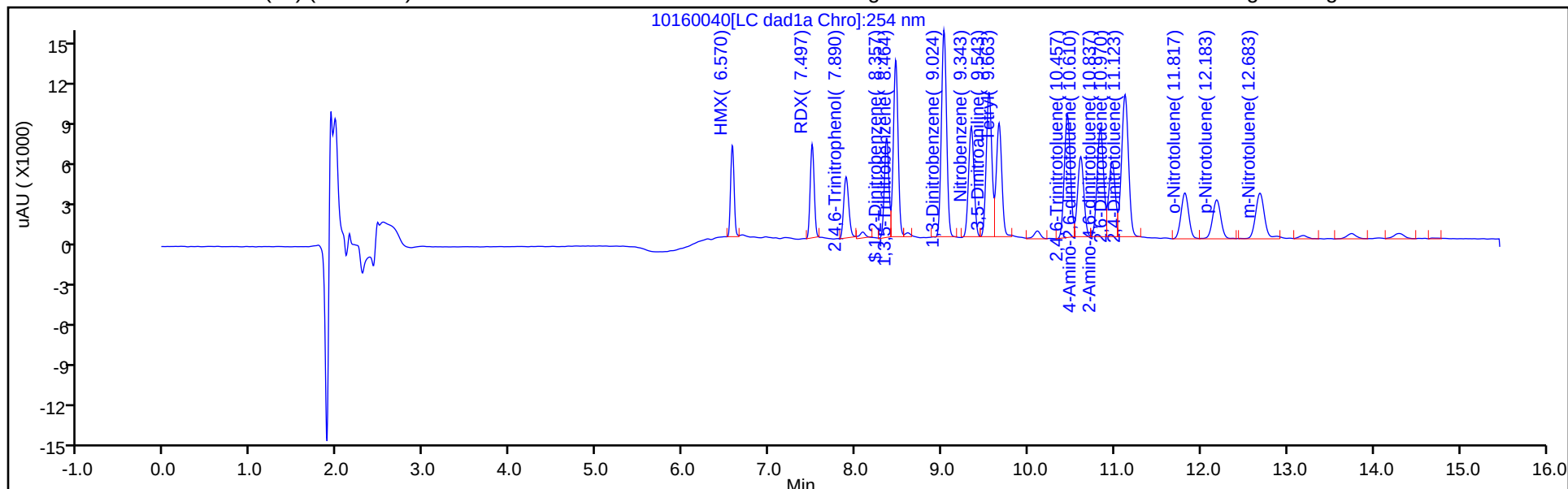
ALS Bottle#: 40

Method: 8330_X3

Limit Group: GCSV - 8330

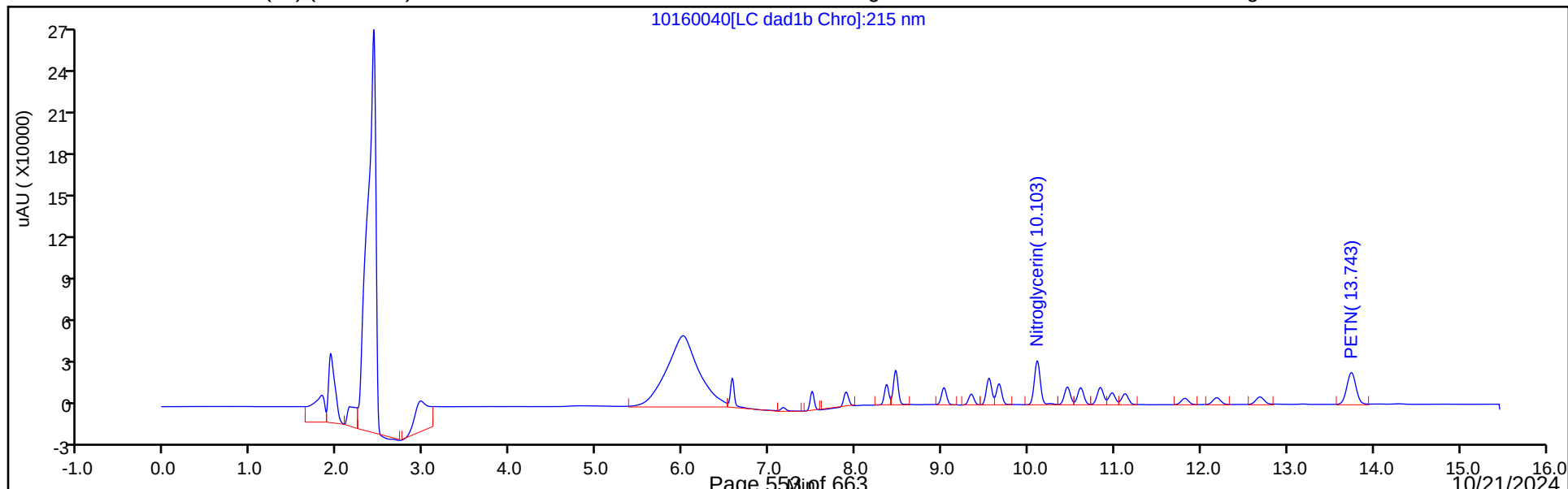
Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\10160040.D
Lims ID: LCS 280-671072/2-A
Client ID:
Sample Type: LCS
Inject. Date: 17-Oct-2024 03:32:25 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-671072/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3
Method: \\chromfs\Denver\ChromData\CHHPLC_X\20241016-138676.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Oct-2024 12:00:39 Calib Date: 04-Oct-2024 19:55:02
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20241004-138284.b\10040019.D
Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D

Date: 17-Oct-2024 11:48:00

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2028	101.41

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160040.d

Injection Date: 17-Oct-2024 03:32:25

Instrument ID: CHHPLC_X3

Lims ID: LCS 280-671072/2-A

Client ID:

Operator ID: JZ

ALS Bottle#:

40

Worklist Smp#: 40

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

Method: 8330_X3

Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm)

Detector

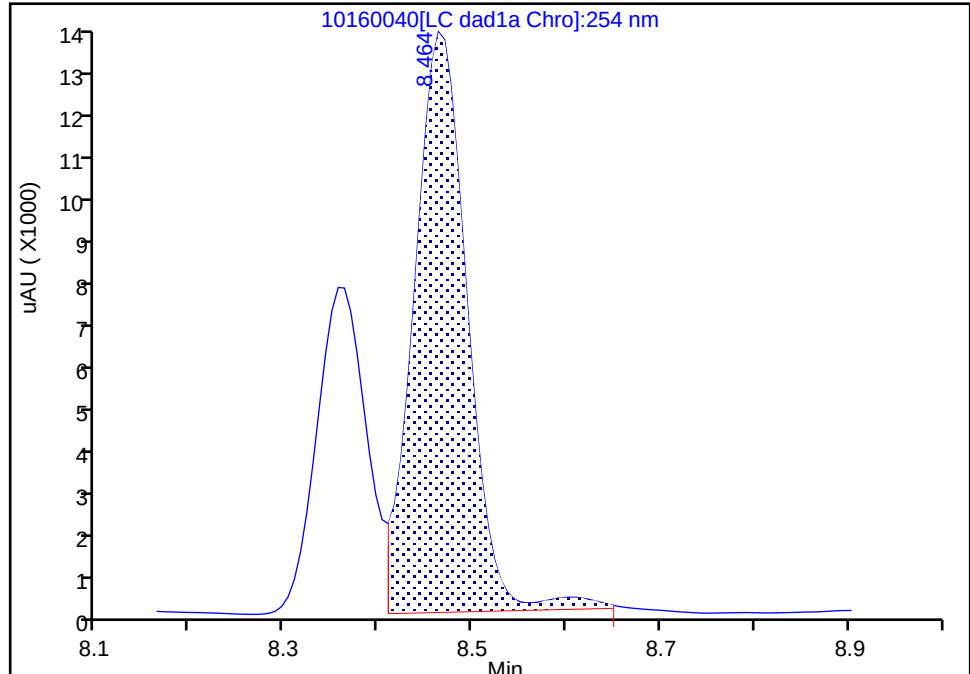
LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

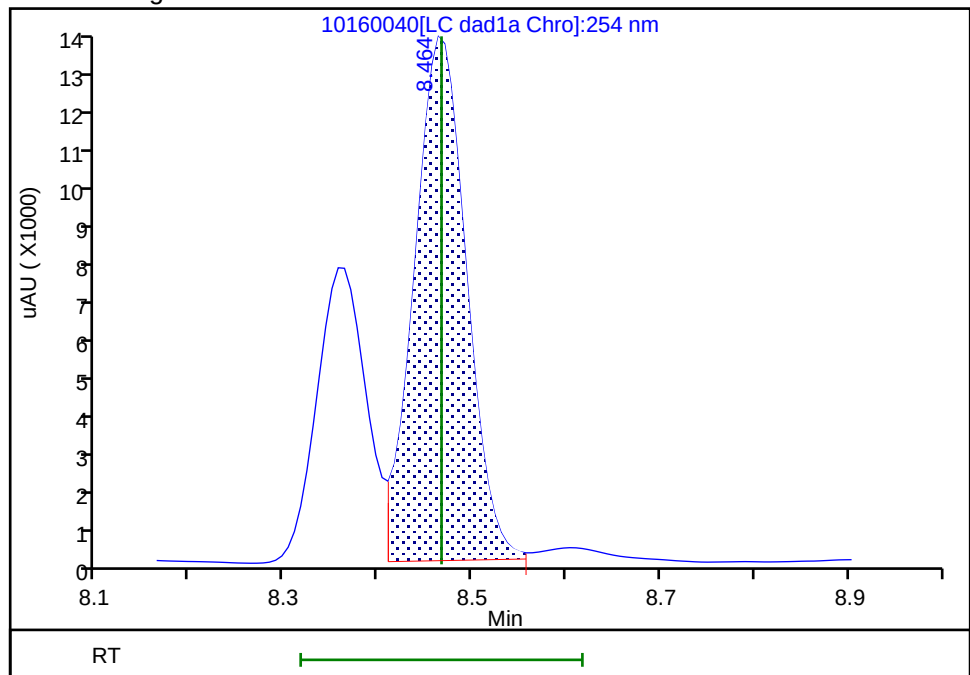
RT: 8.46
Area: 50380
Amount: 0.231792
Amount Units: ug/mL

Processing Integration Results



RT: 8.46
Area: 49285
Amount: 0.226754
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:47:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

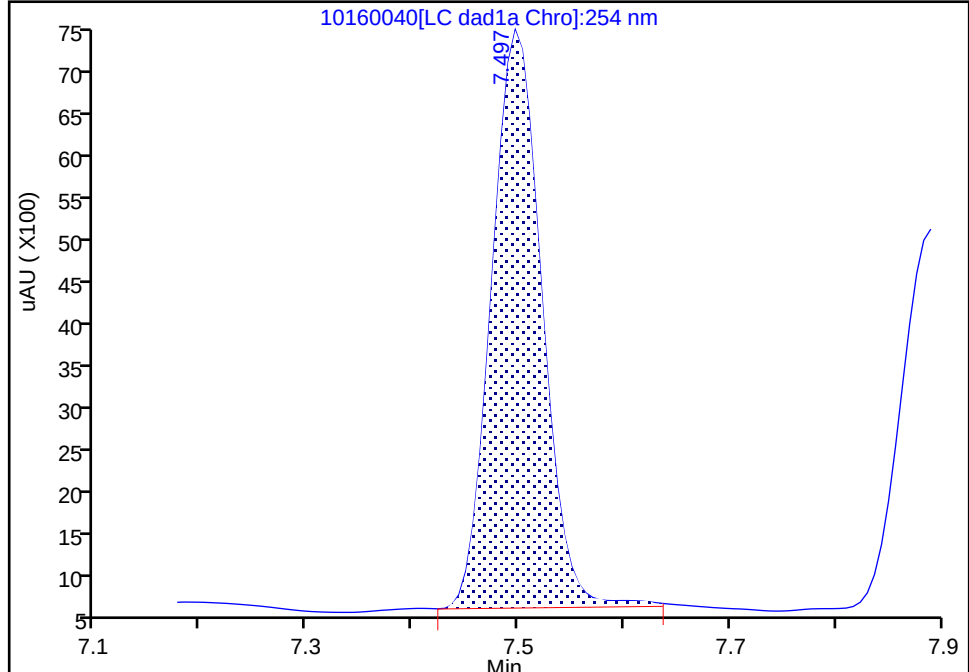
Data File: \\chromfs\denver\chromdata\chhplc_x\20241016-138676.b\10160040.d
Injection Date: 17-Oct-2024 03:32:25 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-671072/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

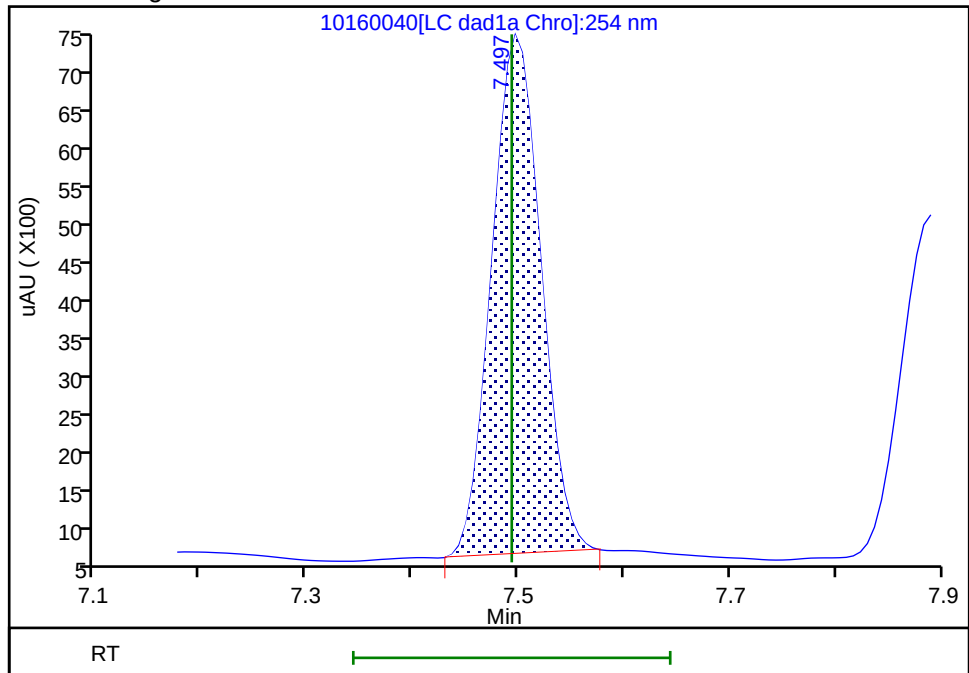
RT: 7.50
Area: 22544
Amount: 0.213393
Amount Units: ug/mL

Processing Integration Results



RT: 7.50
Area: 21915
Amount: 0.207393
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 17-Oct-2024 11:48:30 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Start Date: 08/10/2024 20:22Analysis Batch Number: 663590End Date: 08/11/2024 06:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-663590/10		08/10/2024 20:22	1	08100010.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/11		08/10/2024 20:57	1	08100011.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/12		08/10/2024 21:31	1	08100012.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/13		08/10/2024 22:06	1	08100013.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/14		08/10/2024 22:41	1	08100014.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/15		08/10/2024 23:16	1	08100015.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/16		08/10/2024 23:51	1	08100016.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/17		08/11/2024 00:26	1	08100017.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/18		08/11/2024 01:01	1	08100018.D	Luna-phenylhex 4.6 (mm)
ICV 280-663590/19		08/11/2024 01:36	1	08100019.D	Luna-phenylhex 4.6 (mm)
IC 280-663590/20		08/11/2024 02:11	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/21		08/11/2024 02:46	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/22		08/11/2024 03:21	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/23		08/11/2024 03:56	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/24		08/11/2024 04:31	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/25		08/11/2024 05:06	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/26		08/11/2024 05:41	1		Luna-phenylhex 4.6 (mm)
IC 280-663590/27		08/11/2024 06:16	1		Luna-phenylhex 4.6 (mm)
ICV 280-663590/28		08/11/2024 06:50	1		Luna-phenylhex 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Start Date: 10/04/2024 16:59Analysis Batch Number: 669870End Date: 10/04/2024 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-669870/11		10/04/2024 16:59	1	10040011.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/12		10/04/2024 17:21	1	10040012.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/13		10/04/2024 17:43	1	10040013.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/14		10/04/2024 18:05	1	10040014.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/15		10/04/2024 18:27	1	10040015.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/16		10/04/2024 18:49	1	10040016.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/17		10/04/2024 19:11	1	10040017.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/18		10/04/2024 19:33	1	10040018.D	UltraCarb5uODS 4.6 (mm)
IC 280-669870/19		10/04/2024 19:55	1	10040019.D	UltraCarb5uODS 4.6 (mm)
ICV 280-669870/20		10/04/2024 20:16	1	10040020.D	UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X3Start Date: 10/17/2024 02:48Analysis Batch Number: 671268End Date: 10/17/2024 11:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-671268/38		10/17/2024 02:48	1	10160038.D	UltraCarb5uODS 4.6 (mm)
MB 280-671072/1-A		10/17/2024 03:10	1	10160039.D	UltraCarb5uODS 4.6 (mm)
LCS 280-671072/2-A		10/17/2024 03:32	1	10160040.D	UltraCarb5uODS 4.6 (mm)
280-197842-2	WBGmw-006-240901-GW	10/17/2024 03:54	1	10160041.D	UltraCarb5uODS 4.6 (mm)
280-197842-3	FBQmw-175-240901-GW	10/17/2024 04:16	1	10160042.D	UltraCarb5uODS 4.6 (mm)
280-197842-4	WBGmw-020-240901-GW	10/17/2024 04:38	1	10160043.D	UltraCarb5uODS 4.6 (mm)
280-197842-5	WBGmw-016-240901-GW	10/17/2024 05:00	1	10160044.D	UltraCarb5uODS 4.6 (mm)
280-197842-6	WBGmw-021-240901-GW	10/17/2024 05:22	1	10160045.D	UltraCarb5uODS 4.6 (mm)
280-197842-7	WBGmw-009-240901-GW	10/17/2024 05:44	1	10160046.D	UltraCarb5uODS 4.6 (mm)
280-197842-8	WBGmw-018-240901-GW	10/17/2024 06:06	1	10160047.D	UltraCarb5uODS 4.6 (mm)
280-197842-9	WBGmw-017-240901-GW	10/17/2024 06:27	1	10160048.D	UltraCarb5uODS 4.6 (mm)
CCV 280-671268/49		10/17/2024 06:49	1	10160049.D	UltraCarb5uODS 4.6 (mm)
280-197842-10	WBGmw-014-240901-GW	10/17/2024 07:11	1	10160050.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 07:33	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 07:55	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 08:17	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (QC)		10/17/2024 08:39	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (QC)		10/17/2024 09:01	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 09:23	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 09:45	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 10:07	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 10:29	1		UltraCarb5uODS 4.6 (mm)
CCV 280-671268/60		10/17/2024 10:51	1	10160060.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ (Client)		10/17/2024 11:13	1		UltraCarb5uODS 4.6 (mm)
CCV 280-671268/62		10/17/2024 11:35	1		UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-197842-1

SDG No.: _____

Instrument ID: CHHPLC_X5Start Date: 10/17/2024 21:44Analysis Batch Number: 671457End Date: 10/18/2024 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-671457/17		10/17/2024 21:44	1	10170017.D	Luna-phenylhex 4.6 (mm)
ZZZZZ (QC)		10/17/2024 22:19	1		Luna-phenylhex 4.6 (mm)
ZZZZZ (QC)		10/17/2024 22:54	1		Luna-phenylhex 4.6 (mm)
280-197842-2	WBGmw-006-240901-GW	10/17/2024 23:29	1	10170020.D	Luna-phenylhex 4.6 (mm)
280-197842-3	FBQmw-175-240901-GW	10/18/2024 00:04	1	10170021.D	Luna-phenylhex 4.6 (mm)
280-197842-7	WBGmw-009-240901-GW	10/18/2024 00:38	1	10170022.D	Luna-phenylhex 4.6 (mm)
280-197842-8	WBGmw-018-240901-GW	10/18/2024 01:13	1	10170023.D	Luna-phenylhex 4.6 (mm)
ZZZZZ (Client)		10/18/2024 01:48	1		Luna-phenylhex 4.6 (mm)
ZZZZZ (Client)		10/18/2024 02:23	1		Luna-phenylhex 4.6 (mm)
CCV 280-671457/26		10/18/2024 02:58	1	10170026.D	Luna-phenylhex 4.6 (mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 663590 Batch Start Date: 08/10/24 20:22 Batch Analyst: Zhang, JianBatch Method: 8330B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 LCS 00136	8330IntermStk 00082	8330Surrogate 00158		
IC 280-663590/10		8330B			1 mL		250 uL			
IC 280-663590/11		8330B			1 mL		100 uL			
IC 280-663590/12		8330B			1 mL		70 uL			
IC 280-663590/13		8330B			1 mL		40 uL			
IC 280-663590/14		8330B			1 mL		25 uL			
IC 280-663590/15		8330B			1 mL		10 uL			
IC 280-663590/16		8330B			1 mL		5 uL			
IC 280-663590/17		8330B			1 mL		2 uL			
IC 280-663590/18		8330B			1 mL		1 uL			
ICV 280-663590/19		8330B			1 mL	50 uL		50 uL		

Batch Notes	
Reagent Water ID	N.ELGA 8/10/24
Methanol ID	64110
Vial Lot Number	231260007
Diluting Solvent ID	8330ACidH2O_00007
Batch Comment	8330BufferStk_00017, Acetic Acid_00171

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.

8330B

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 669870 Batch Start Date: 10/04/24 16:59 Batch Analyst: Zhang, JianBatch Method: 8330B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00018	8330 LCS 00137	8330_OP_DMT 00030	8330IntermStk 00083	8330Surrogate 00159
IC 280-669870/11		8330B			1 mL	125 uL			250 uL	
IC 280-669870/12		8330B			1 mL	50 uL			100 uL	
IC 280-669870/13		8330B			1 mL	35 uL			70 uL	
IC 280-669870/14		8330B			1 mL	20 uL			40 uL	
IC 280-669870/15		8330B			1 mL	12.5 uL			25 uL	
IC 280-669870/16		8330B			1 mL	5 uL			10 uL	
IC 280-669870/17		8330B			1 mL	2.5 uL			5 uL	
IC 280-669870/18		8330B			1 mL	1 uL			2 uL	
IC 280-669870/19		8330B			1 mL	0.5 uL			1 uL	
ICV 280-669870/20		8330B			1 mL		50 uL	50 uL		50 uL

Batch Notes	
Reagent Water ID	N.ELGA 10/4/24
Methanol ID	64208
Vial Lot Number	2402678
Diluting Solvent ID	8330ACIDH2O00008
Batch Comment	8330BUFFERSTK00018,ACETICACID00171

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.

8330B

Page 1 of 1

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 671072 Batch Start Date: 10/16/24 10:50 Batch Analyst: Hermanova, EvaBatch Method: 3535 Batch End Date: 10/16/24 15:45

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00137	8330Surrogate 00159
MB 280-671072/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-671072/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-197842-A-2	WBGmw-006-24090 1-GW	3535, 8330B	Water	T	756.0 g	279.1 g	476.9 mL	5 mL		0.1 mL
280-197842-A-3	FBQmw-175-24090 1-GW	3535, 8330B	Water	T	648.7 g	283.1 g	365.6 mL	5 mL		0.1 mL
280-197842-A-4	WBGmw-020-24090 1-GW	3535, 8330B	Water	T	735.1 g	276.5 g	458.6 mL	5 mL		0.1 mL
280-197842-A-5	WBGmw-016-24090 1-GW	3535, 8330B	Water	T	730.5 g	278.5 g	452 mL	5 mL		0.1 mL
280-197842-A-6	WBGmw-021-24090 1-GW	3535, 8330B	Water	T	758.1 g	280.0 g	478.1 mL	5 mL		0.1 mL
280-197842-A-7	WBGmw-009-24090 1-GW	3535, 8330B	Water	T	733.1 g	279.7 g	453.4 mL	5 mL		0.1 mL
280-197842-A-8	WBGmw-018-24090 1-GW	3535, 8330B	Water	T	741.8 g	278.0 g	463.8 mL	5 mL		0.1 mL
280-197842-B-9	WBGmw-017-24090 1-GW	3535, 8330B	Water	T	758.0 g	279.6 g	478.4 mL	5 mL		0.1 mL
280-197842-B-10	WBGmw-014-24090 1-GW	3535, 8330B	Water	T	762.2 g	279.4 g	482.8 mL	5 mL		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 Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 671072 Batch Start Date: 10/16/24 10:50 Batch Analyst: Hermanova, EvaBatch Method: 3535 Batch End Date: 10/16/24 15:45

Batch Notes	
First Start time	10/16/2024 11:40
First End time	10/16/2024 14:41
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005534114A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: A, B
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Doddy/DOD/Pugsley
Solvent Name	Calcium Chloride in Water
Solvent Lot #	CaCl2_Sol_00094
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00091
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00007
Analyst ID - Spike Analyst	EH
Analyst ID - Spike Witness Analyst	Reviewer: MJ
Batch Comment	DV-OP-0017, NaCl Baked_00038 (Fisher)

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 Denver Job Number: 280-197842-1

SDG No.:

Project: RVAAP FWGW

Client Sample ID
LL12mw-249-240901-GW

Lab Sample ID
280-197842-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-249-240901-GW
Lab Name: Eurofins Denver
SDG ID.:
Matrix: Water
Reporting Basis: WET
Preparation Batch Number:

Lab Sample ID: 280-197842-1
Job No.: 280-197842-1
Date Sampled: 10/09/2024 08:50
Date Received: 10/10/2024 09:20
Instrument ID: WC_SKALAR_01

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.38	0.10	0.050	0.029	mg/L			1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Analyst: LBR Batch Start Date: 10/19/2024
Reporting Units: mg/L Analytical Batch No.: 671704

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	ICV	11:50	Ammonia as N	2.49	2.50	100	90-110		350.1 ICV_00626
17	ICB	11:52	Ammonia as N	0.050				U	
130	CCV	15:57	Ammonia as N	2.58	2.51	103	90-110		350.1 cal_00648
132	CCB	16:01	Ammonia as N	0.050				U	
150	CCV	16:40	Ammonia as N	2.57	2.51	102	90-110		350.1 cal_00648
152	CCB	16:44	Ammonia 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 Denver Job No.: 280-197842-1
SDG No.: _____
Analyst: EJS Batch Start Date: 10/10/2024
Reporting Units: mg/L Analytical Batch No.: 670541

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	17:34	Nitrate as N	3.96	4.00	99	90-110		IC ICV 5_00447
8	ICB	17:45	Nitrate as N	0.20				U	
27	CCV	22:02	Nitrate as N	5.50	5.00	110	90-110		IC LCS_02126
28	CCB	22:13	Nitrate as N	0.20				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 Denver

Job No.: 280-197842-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 671704 Date: 10/19/2024 16:08							
350.1	MB 280-671704/135	Ammonia as N	0.050	U	mg/L	0.10	1
Batch ID: 670541 Date: 10/10/2024 18:40							
9056	MB 280-670541/13	Nitrate as N	0.20	U	mg/L	0.50	1

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 671704 Date: 10/19/2024 16:10											
						LCS Source: 350.1 cal_00648					
350.1	LCS 280-671704/13 6	Ammonia as N	2.53		mg/L	2.51	101	90-110			
Batch ID: 670541 Date: 10/10/2024 18:18											
						LCS Source: IC LCS_02126					
9056	LCS 280-670541/11	Nitrate as N	5.02		mg/L	5.00	100	88-111	0	10	

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 Denver Job No.: 280-197842-1
SDG No.:
Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 670541 Date: 10/10/2024 18:29											
						LCSD Source: IC LCS_02126					
9056	LCSD 280-670541/12	Nitrate as N	5.01		mg/L	5.00	100	88-111	0	10	

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

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.:
Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 670541 Date: 10/10/2024 18:07											
						LCS Source: IC Cal low_00812					
9056	MRL 280-670541/10	Nitrate as N	0.493	J	mg/L	0.500	99	50-150			

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

16A-IN

Lab Name: Eurofins Denver	Job No: 280-197842-1
SDG No.:	Analysis Batch No.: 670541
Instrument ID: WC_IonChrom17	Calibration ID: 98130
Start Date: 10/10/2024 16:28	End Date: 10/10/2024 17:23
Analytical Method: 9056	

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	1.0000	19400000	-1790000	WLR	Inverse Conc

16B-IN

Lab Name: Eurofins Denver Job No: 280-197842-1

SDG No.: Analysis Batch No.: 670541

Instrument ID: WC_IonChrom17 Calibration ID: 98130

Start Date: 10/10/2024 16:28 End Date: 10/10/2024 17:23

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	0.20	0.21	7	0.50	0.49	-1	1.0	0.94	-6

16B-IN

Lab Name: Eurofins Denver Job No: 280-197842-1

SDG No.: Analysis Batch No.: 670541

Instrument ID: WC_IonChrom17 Calibration ID: 98130

Start Date: 10/10/2024 16:28 End Date: 10/10/2024 17:23

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	4.0	4.0	0	8.0	8.1	2	10.0	9.9	-1

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-197842-1
SDG Number: _____
Matrix: Water Instrument ID: WC_SKALAR_01
Method: 350.1 DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia as N		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-197842-1
SDG Number: _____
Matrix: Water Instrument ID: WC_SKALAR_01
Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-197842-1
SDG Number: _____
Matrix: Water Instrument ID: WC_IonChrom17
Method: 9056 DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-197842-1
SDG Number: _____
Matrix: Water Instrument ID: WC_IonChrom17
Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_SKALAR_01 Analysis Method: 350.1
Start Date: 10/19/2024 11:16 End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N H 3																	
ZZZZZZ			11:16																		
ZZZZZZ			11:18																		
ZZZZZZ			11:21																		
ZZZZZZ			11:24																		
ZZZZZZ			11:26																		
ZZZZZZ			11:28																		
ZZZZZZ			11:30																		
ZZZZZZ			11:32																		
ZZZZZZ			11:34																		
ZZZZZZ			11:37																		
ZZZZZZ			11:39																		
ZZZZZZ			11:41																		
ZZZZZZ			11:43																		
ZZZZZZ			11:45																		
ZZZZZZ			11:47																		
ICV 280-671704/16	1		11:50	X																	
ICB 280-671704/17	1		11:52	X																	
ZZZZZZ (QC)			11:54																		
ZZZZZZ (QC)			11:56																		
ZZZZZZ (Client)			11:58																		
ZZZZZZ (QC)			12:00																		
ZZZZZZ (QC)			12:02																		
ZZZZZZ (Client)			12:05																		
ZZZZZZ (Client)			12:07																		
ZZZZZZ (Client)			12:09																		
ZZZZZZ (Client)			12:11																		
ZZZZZZ (Client)			12:13																		
ZZZZZZ (Client)			12:16																		
ZZZZZZ (Client)			12:18																		
ZZZZZZ (Client)			12:20																		
ZZZZZZ (Client)			12:22																		
ZZZZZZ			12:24																		
CCV 280-671704/33			12:26																		
ZZZZZZ			12:29																		
CCB 280-671704/35			12:31																		
ZZZZZZ			12:33																		
ZZZZZZ			12:35																		
ZZZZZZ (Client)			12:38																		
ZZZZZZ (QC)			12:39																		
ZZZZZZ (QC)			12:42																		
ZZZZZZ (Client)			12:44																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_SKALAR_01 Analysis Method: 350.1
Start Date: 10/19/2024 11:16 End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N H 3																	
ZZZZZZ (Client)			12:46																		
ZZZZZZ (Client)			12:48																		
ZZZZZZ (Client)			12:50																		
ZZZZZZ (Client)			12:52																		
ZZZZZZ (Client)			12:55																		
ZZZZZZ (Client)			12:57																		
ZZZZZZ (Client)			12:59																		
ZZZZZZ (Client)			13:01																		
ZZZZZZ			13:03																		
CCV 280-671704/51			13:05																		
ZZZZZZ			13:07																		
CCB 280-671704/53			13:10																		
ZZZZZZ			13:12																		
ZZZZZZ			13:14																		
ZZZZZZ (QC)			13:16																		
ZZZZZZ (QC)			13:18																		
ZZZZZZ (Client)			13:21																		
ZZZZZZ (QC)			13:23																		
ZZZZZZ (QC)			13:25																		
ZZZZZZ (Client)			13:27																		
ZZZZZZ (Client)			13:30																		
ZZZZZZ (Client)			13:32																		
ZZZZZZ (Client)			13:34																		
ZZZZZZ (Client)			13:36																		
ZZZZZZ (Client)			13:38																		
ZZZZZZ (Client)			13:40																		
ZZZZZZ (Client)			13:42																		
ZZZZZZ (Client)			13:44																		
ZZZZZZ			13:47																		
CCV 280-671704/71			13:49																		
ZZZZZZ			13:51																		
CCB 280-671704/73			13:53																		
ZZZZZZ			13:55																		
ZZZZZZ			13:57																		
ZZZZZZ (Client)			13:59																		
ZZZZZZ (QC)			14:02																		
ZZZZZZ (QC)			14:04																		
ZZZZZZ (Client)			14:06																		
ZZZZZZ (Client)			14:08																		
ZZZZZZ (Client)			14:10																		
ZZZZZZ (Client)			14:12																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_SKALAR_01 Analysis Method: 350.1
Start Date: 10/19/2024 11:16 End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N H 3																	
ZZZZZZ (Client)			14:15																		
ZZZZZZ (Client)			14:17																		
ZZZZZZ (Client)			14:19																		
ZZZZZZ (Client)			14:21																		
ZZZZZZ (Client)			14:23																		
ZZZZZZ			14:26																		
CCV 280-671704/89			14:28																		
ZZZZZZ			14:30																		
CCB 280-671704/91			14:32																		
ZZZZZZ			14:34																		
ZZZZZZ			14:36																		
ZZZZZZ (QC)			14:39																		
ZZZZZZ (QC)			14:41																		
ZZZZZZ (Client)			14:43																		
ZZZZZZ (QC)			14:45																		
ZZZZZZ (QC)			14:47																		
ZZZZZZ (Client)			14:49																		
ZZZZZZ (Client)			14:52																		
ZZZZZZ (Client)			14:54																		
ZZZZZZ (Client)			14:56																		
ZZZZZZ (Client)			14:58																		
ZZZZZZ (Client)			15:00																		
ZZZZZZ (Client)			15:02																		
ZZZZZZ (Client)			15:05																		
ZZZZZZ (Client)			15:07																		
ZZZZZZ			15:09																		
ZZZZZZ			15:11																		
ZZZZZZ			15:13																		
ZZZZZZ			15:15																		
CCV 280-671704/112			15:18																		
ZZZZZZ			15:20																		
CCB 280-671704/114			15:22																		
ZZZZZZ			15:24																		
ZZZZZZ			15:26																		
ZZZZZZ (Client)			15:29																		
ZZZZZZ (QC)			15:31																		
ZZZZZZ (QC)			15:33																		
ZZZZZZ (Client)			15:36																		
ZZZZZZ (Client)			15:38																		
ZZZZZZ (Client)			15:39																		
ZZZZZZ (Client)			15:41																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_SKALAR_01 Analysis Method: 350.1
Start Date: 10/19/2024 11:16 End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes															
				N H 3															
ZZZZZZ (Client)			15:44																
ZZZZZZ (Client)			15:46																
ZZZZZZ (Client)			15:48																
ZZZZZZ (Client)			15:50																
ZZZZZZ (Client)			15:52																
ZZZZZZ			15:54																
CCV 280-671704/130	1		15:57	X															
ZZZZZZ			15:59																
CCB 280-671704/132	1		16:01	X															
ZZZZZZ			16:03																
ZZZZZZ			16:05																
MB 280-671704/135	1	T	16:08	X															
LCS 280-671704/136	1	T	16:10	X															
ZZZZZZ (Client)			16:12																
ZZZZZZ (QC)			16:14																
ZZZZZZ (QC)			16:16																
ZZZZZZ (Client)			16:18																
ZZZZZZ (Client)			16:20																
ZZZZZZ (Client)			16:23																
ZZZZZZ (Client)			16:25																
ZZZZZZ (Client)			16:27																
280-197842-1	1	T	16:29	X															
ZZZZZZ (Client)			16:31																
ZZZZZZ (Client)			16:33																
ZZZZZZ (Client)			16:36																
ZZZZZZ			16:38																
CCV 280-671704/150	1		16:40	X															
ZZZZZZ			16:42																
CCB 280-671704/152	1		16:44	X															
ZZZZZZ			16:46																
ZZZZZZ			16:49																
ZZZZZZ (Client)			16:51																
ZZZZZZ (QC)			16:53																
ZZZZZZ (QC)			16:55																
ZZZZZZ (Client)			16:57																
ZZZZZZ (Client)			16:59																
ZZZZZZ (Client)			17:02																
ZZZZZZ (Client)			17:04																
ZZZZZZ (Client)			17:06																
ZZZZZZ (Client)			17:08																
ZZZZZZ (Client)			17:10																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_SKALAR_01 Analysis Method: 350.1
Start Date: 10/19/2024 11:16 End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N H 3																	
ZZZZZZ (Client)			17:12																		
ZZZZZZ (Client)			17:15																		
ZZZZZZ			17:17																		
CCV 280-671704/168			17:19																		
ZZZZZZ			17:21																		
CCB 280-671704/170			17:23																		
ZZZZZZ			17:25																		
ZZZZZZ			17:28																		
ZZZZZZ (QC)			17:31																		
ZZZZZZ (QC)			17:32																		
ZZZZZZ (Client)			17:34																		
ZZZZZZ (QC)			17:36																		
ZZZZZZ (QC)			17:38																		
ZZZZZZ (Client)			17:41																		
ZZZZZZ (Client)			17:43																		
ZZZZZZ (Client)			17:45																		
ZZZZZZ (Client)			17:47																		
ZZZZZZ (Client)			17:49																		
ZZZZZZ (Client)			17:51																		
ZZZZZZ (Client)			17:54																		
ZZZZZZ (Client)			17:56																		
ZZZZZZ (Client)			17:58																		
ZZZZZZ			18:00																		
CCV 280-671704/188			18:02																		
ZZZZZZ			18:04																		
CCB 280-671704/190			18:07																		
ZZZZZZ			18:09																		
ZZZZZZ			18:11																		
ZZZZZZ (Client)			18:13																		
ZZZZZZ (QC)			18:15																		
ZZZZZZ (QC)			18:17																		
ZZZZZZ (Client)			18:20																		
ZZZZZZ (Client)			18:22																		
ZZZZZZ (Client)			18:24																		
ZZZZZZ (Client)			18:26																		
ZZZZZZ (Client)			18:28																		
ZZZZZZ (Client)			18:30																		
ZZZZZZ (Client)			18:33																		
ZZZZZZ (Client)			18:35																		
ZZZZZZ (Client)			18:37																		
ZZZZZZ			18:39																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Instrument ID: WC_SKALAR_01

Analysis Method: 350.1

Start Date: 10/19/2024 11:16

End Date: 10/19/2024 18:52

Lab Sample Id	D/F	T Y P e	Time	Analytes																									
				N H 3																									
CCV 280-671704/206			18:41																										
ZZZZZZ			18:44																										
CCB 280-671704/208			18:46																										
ZZZZZZ			18:48																										
ZZZZZZ			18:50																										
ZZZZZZ			18:52																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_IonChrom17 Analysis Method: 9056
Start Date: 10/10/2024 16:28 End Date: 10/11/2024 09:46

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N O 3																	
STD 280-670541/1 IC	1		16:28	X																	
STD 280-670541/2 IC	1		16:39	X																	
STD 280-670541/3 IC	1		16:50	X																	
STD 280-670541/4 IC	1		17:01	X																	
STD 280-670541/5 IC	1		17:12	X																	
STD 280-670541/6 IC	1		17:23	X																	
ICV 280-670541/7	1		17:34	X																	
ICB 280-670541/8	1		17:45	X																	
RTC 280-670541/9			17:56																		
MRL 280-670541/10	1	T	18:07	X																	
LCS 280-670541/11	1	T	18:18	X																	
LCSD 280-670541/12	1	T	18:29	X																	
MB 280-670541/13	1	T	18:40	X																	
280-197842-1	1	T	19:38	X																	
ZZZZZZ (Client)			19:49																		
ZZZZZZ (Client)			20:00																		
ZZZZZZ (Client)			20:11																		
ZZZZZZ (Client)			20:23																		
ZZZZZZ (Client)			20:34																		
ZZZZZZ (QC)			20:45																		
ZZZZZZ (QC)			20:56																		
ZZZZZZ (QC)			21:07																		
ZZZZZZ (Client)			21:18																		
ZZZZZZ (Client)			21:29																		
ZZZZZZ (Client)			21:40																		
ZZZZZZ (Client)			21:51																		
CCV 280-670541/27	1		22:02	X																	
CCB 280-670541/28	1		22:13	X																	
ZZZZZZ (Client)			22:24																		
ZZZZZZ (Client)			22:35																		
ZZZZZZ (QC)			22:46																		
ZZZZZZ (QC)			22:57																		
ZZZZZZ (QC)			23:08																		
ZZZZZZ (Client)			23:19																		
ZZZZZZ (Client)			23:30																		
ZZZZZZ (Client)			23:41																		
ZZZZZZ (Client)			23:52																		
ZZZZZZ (Client)			00:03																		
ZZZZZZ (Client)			00:14																		
ZZZZZZ (Client)			00:25																		
ZZZZZZ (Client)			00:36																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-197842-1
SDG No.: _____
Instrument ID: WC_IonChrom17 Analysis Method: 9056
Start Date: 10/10/2024 16:28 End Date: 10/11/2024 09:46

Lab Sample Id	D/F	T Y P e	Time	Analytes																	
				N O 3																	
CCV 280-670541/42			00:47																		
CCB 280-670541/43			00:58																		
ZZZZZZ (Client)			01:09																		
ZZZZZZ (QC)			01:20																		
ZZZZZZ (QC)			01:31																		
ZZZZZZ (QC)			01:42																		
ZZZZZZ (Client)			01:53																		
ZZZZZZ (Client)			02:04																		
ZZZZZZ (QC)			02:15																		
ZZZZZZ (QC)			02:26																		
ZZZZZZ (QC)			02:37																		
ZZZZZZ (Client)			02:48																		
ZZZZZZ (Client)			02:59																		
ZZZZZZ (Client)			03:10																		
ZZZZZZ (Client)			03:21																		
ZZZZZZ (Client)			03:32																		
ZZZZZZ (Client)			03:43																		
ZZZZZZ (Client)			03:54																		
CCV 280-670541/60			04:05																		
CCB 280-670541/61			04:16																		
ZZZZZZ (Client)			04:27																		
ZZZZZZ (Client)			04:38																		
ZZZZZZ (Client)			04:49																		
ZZZZZZ (QC)			05:00																		
ZZZZZZ (QC)			05:11																		
ZZZZZZ (QC)			05:22																		
ZZZZZZ (Client)			05:33																		
ZZZZZZ (Client)			05:44																		
ZZZZZZ (Client)			05:55																		
ZZZZZZ (Client)			06:06																		
ZZZZZZ (Client)			06:17																		
ZZZZZZ (Client)			06:28																		
ZZZZZZ (Client)			06:39																		
CCV 280-670541/75			06:50																		
CCB 280-670541/76			07:01																		
ZZZZZZ (Client)			07:12																		
ZZZZZZ (Client)			07:23																		
ZZZZZZ (Client)			07:34																		
ZZZZZZ (QC)			07:45																		
ZZZZZZ (QC)			07:56																		
ZZZZZZ (QC)			08:07																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job No.: 280-197842-1

SDG No.:

Instrument ID: WC_IonChrom17

Analysis Method: 9056

Start Date: 10/10/2024 16:28

End Date: 10/11/2024 09:46

Lab Sample Id	D/F	T Y P e	Time	Analytes																									
				N O 3																									
ZZZZZZ (Client)			08:18																										
ZZZZZZ (QC)			08:29																										
ZZZZZZ (QC)			08:40																										
ZZZZZZ (QC)			08:51																										
ZZZZZZ (Client)			09:02																										
ZZZZZZ (Client)			09:13																										
ZZZZZZ (Client)			09:24																										
CCV 280-670541/90			09:35																										
CCB 280-670541/91			09:46																										

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 671704 Batch Start Date: 10/19/24 11:16 Batch Analyst: Rutherford, Lindsay BBatch Method: 350.1 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00648	350.1 ICV 00626
ICV 280-671704/16		350.1			no	100 mL	100 mL	<2 SU		2.5 mL
ICB 280-671704/17		350.1			no	30 mL	30 mL	<2 SU		
CCV 280-671704/130		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCB 280-671704/132		350.1			no	30 mL	30 mL	<2 SU		
MB 280-671704/135		350.1			no	30 mL	30 mL	<2 SU		
LCS 280-671704/136		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
280-197842-A-1	LL12mw-249-2409 01-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
CCV 280-671704/150		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCB 280-671704/152		350.1			no	30 mL	30 mL	<2 SU		

Batch Notes	
Residual Chlorine Indicator ID	14-860
pH Indicator ID	hc442471
Acid used for pH adjustment	Sulfuricacid_00294
Sodium Nitroprusside ID	Na Nitro_00107
Hypochlorite ID	Na Hypo_00117
EDTA Buffer ID	Buffer A_00074
Potassium Sodium Tartrate ID	Buffer B_00121
Carrier Identification	Ammonia Rinse_00117
Sodium Salicylate ID	Na Salicylate_00124
Pipette/Syringe/Dispenser ID	mmp 5000, 1000 skalar, bwh 200
Pipette Tip Lot ID	m211714k, m211419j, m209386g
Dichloroisocyanurate ID	Na Dichloro_00001

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.

350.1

Page 1 of 2

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 671704 Batch Start Date: 10/19/24 11:16 Batch Analyst: Rutherford, Lindsay BBatch Method: 350.1 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.

350.1

Page 2 of 2

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 670541 Batch Start Date: 10/10/24 16:28 Batch Analyst: Sherman, Erik JBatch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Cl cal Std 00042	IC CAL cl/so4 00563	IC Cal low 00812	IC ICV 5 00447
STD 280-670541/1 IC		9056			10 mL	10 mL		0.04 mL	0.04 mL	
STD 280-670541/2 IC		9056			10 mL	10 mL		0.1 mL	0.1 mL	
STD 280-670541/3 IC		9056			10 mL	10 mL		0.2 mL	0.2 mL	
STD 280-670541/4 IC		9056			10 mL	10 mL		2.4 mL	0.8 mL	
STD 280-670541/5 IC		9056			10 mL	10 mL		4.8 mL	1.6 mL	
STD 280-670541/6 IC		9056			10 mL	10 mL		8 mL	2 mL	
ICV 280-670541/7		9056			10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-670541/8		9056			10 mL	10 mL				
MRL 280-670541/10		9056			10 mL	10 mL		0.2 mL	0.1 mL	
LCS 280-670541/11		9056			10 mL	10 mL				
LCSD 280-670541/12		9056			10 mL	10 mL				
MB 280-670541/13		9056			10 mL	10 mL				
280-197842-B-1	LL12mw-249-2409 01-GW	9056	Water	T	10 mL	10 mL				
CCV 280-670541/27		9056			10 mL	10 mL				
CCB 280-670541/28		9056			10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	IC LCS 02126	IC SO4 cal 00013				
STD 280-670541/1 IC		9056								
STD 280-670541/2 IC		9056								
STD 280-670541/3 IC		9056								
STD 280-670541/4 IC		9056								

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 Denver Job No.: 280-197842-1

SDG No.: _____

Batch Number: 670541 Batch Start Date: 10/10/24 16:28 Batch Analyst: Sherman, Erik JBatch Method: 9056 Batch End Date: _____

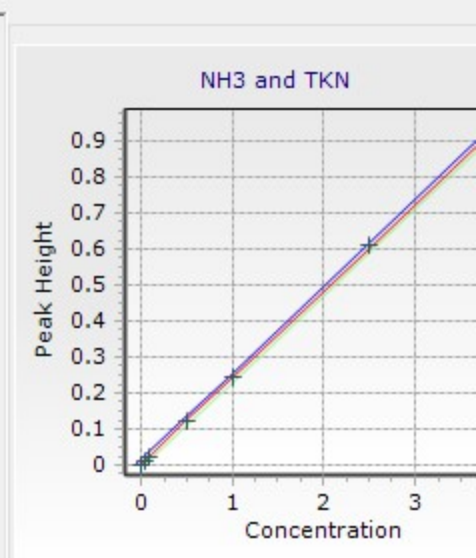
Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	IC LCS 02126	IC S04 cal 00013				
STD 280-670541/5 IC		9056								
STD 280-670541/6 IC		9056								
ICV 280-670541/7		9056				0.8 mL				
ICB 280-670541/8		9056								
MRL 280-670541/10		9056								
LCS 280-670541/11		9056			10 mL					
LCSD 280-670541/12		9056			10 mL					
MB 280-670541/13		9056								
280-197842-B-1	LL12mw-249-2409 01-GW	9056	Water	T						
CCV 280-670541/27		9056			10 mL					
CCB 280-670541/28		9056								

Batch Notes	
Filter ID	13-1001-13
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, MP10, AB8A100, ICM5000, PAIN
Sufficient Volume for Batch QC	Y
Eluent 1 ID	075778
Regeneration Solution ID	231222950310
Batch Comment	EJS

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.

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.000	0.003	-0.003	☒		
2	6	ST2	S2	0.05	0.050	0.013	0.041	☒	-15.97%	-17.5%
3	7	ST3	S3	0.1	0.100	0.024	0.088	☒	-11.85%	-12.03%
4	8	ST4	S4	0.5	0.500	0.123	0.497	☒	-0.54%	-0.55%
5	9	ST5	S5	1	1.000	0.249	1.021	☒	1.99%	2.06%
6	10	ST6	S6	2.5	2.500	0.613	2.528	☒	1.09%	1.1%
7	11	ST7	S7	4	4.000	0.962	3.978	☒	-0.54%	-0.54%

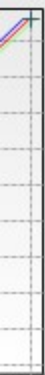


Method Name	Ammonia	a	0.00326395	R Squared	0.99986539
Module Name	NH3 and TKN	b	0.24106866	Constant Sx0	0.01943153
Calibration Order	I Order ISO 8466	c		Constant Vx0	1.66896550
Residual Std. Dev. (Sy)	0.00468433222170	d			
		Correlation Coefficient	0.99993269		

Calibration Order I Order ISO 8466

[Save](#)

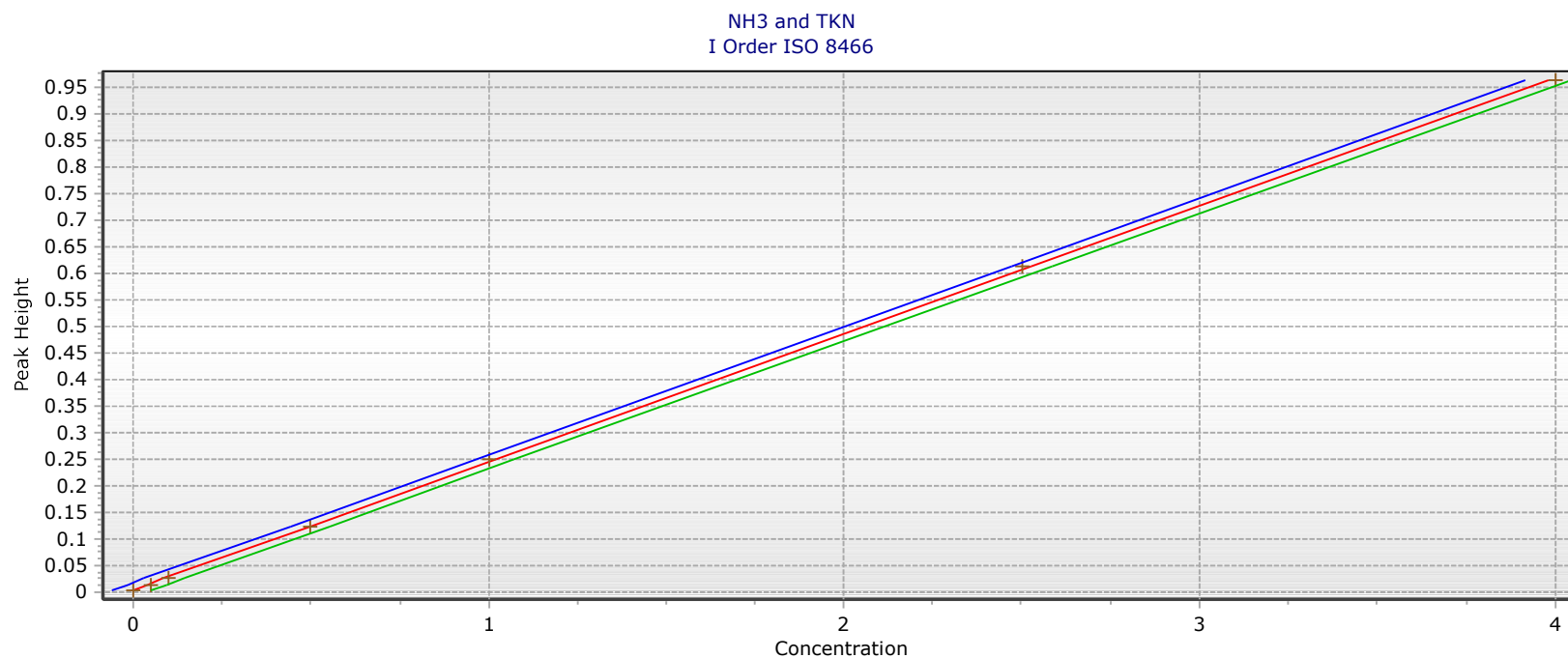
[Close](#)



4

FlowAccessV3

Date: Oct 19 2024 6:57:04PM



$a = 0.00326395347674$ $b = 0.24106866354116$ $RSD = 0.00468433222170$

$r = 0.99993269437106$ $R^2 = 0.99986539327217$

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
1	IW	IW	InitialWash		1.0000	-0.014
2	ST7	T	Tracer		1.0000	3.957
3	WT	WI	WashIgnore		1.0000	0.033
4	ST5	D	Drift		1.0000	1.050
5	WT	W	Wash		1.0000	-0.014
6	ST1	S1	0 mg/L		1.0000	-0.003
7	ST2	S2	0.05		1.0000	0.041
8	ST3	S3	0.1		1.0000	0.088
9	ST4	S4	0.5		1.0000	0.497
10	ST5	S5	1.0		1.0000	1.021
11	ST6	S6	2.5		1.0000	2.528
12	ST7	S7	4.0		1.0000	3.978
13	WT	WI	WashIgnore		1.0000	0.017
14	ST5	D	Drift		1.0000	1.051
15	WT	W	Wash		1.0000	-0.014
16	ST8	U	ICV		1.0000	2.494
17	ST1	U	ICB		1.0000	0.020
18	ST1	U	MB		1.0000	-0.006
19	D29	U	LCS		1.0000	2.502
20	A1	U	280-197744-b-1		1.0000	0.150
21	A2	U	280-197744-b-1 MS		1.0000	1.153
22	A3	U	280-197744-b-1 MSD		1.0000	1.158
23	A4	U	280-197744-b-2		1.0000	0.022
24	A5	U	280-197744-b-3		1.0000	0.026
25	A6	U	280-197744-b-4		1.0000	0.234
26	A7	U	280-197744-b-6		1.0000	0.111
27	A8	U	280-197744-b-7		1.0000	0.110
28	A9	U	280-197744-b-8		1.0000	0.094
29	A10	U	280-197744-b-9		1.0000	0.121
30	A11	U	280-197744-b-10		1.0000	0.076
31	A12	U	280-197744-b-11		1.0000	0.229
32	WT	WI	WashIgnore		1.0000	-0.027
33	ST6	U	CCV		1.0000	2.475
34	WT	WI	WashIgnore		1.0000	0.002
35	ST1	U	CCB		1.0000	-0.009
36	ST5	D	Drift		1.0000	1.068
37	WT	W	Wash		1.0000	-0.014
38	A13	U	280-197744-b-12		1.0000	0.049
39	A14	U	280-197744-b-12 MS		1.0000	1.057
40	A15	U	280-197744-b-12 MSC		1.0000	1.101

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
41	A16	U	280-197744-b-13		1.0000	0.028
42	A17	U	280-197744-b-14		1.0000	0.125
43	A18	U	280-197682-e-1		1.0000	1.991
44	A19	U	280-197682-e-2		1.0000	0.689
45	A20	U	280-197682-e-5		1.0000	1.614
46	A21	U	280-197682-e-6		1.0000	1.036
47	A22	U	280-197848-e-6		1.0000	2.714
48	A23	U	280-197738-e-7		1.0000	1.303
49	A24	U	280-197738-e-11		1.0000	1.409
50	WT	WI	WashIgnore		1.0000	-0.004
51	ST6	U	CCV		1.0000	2.546
52	WT	WI	WashIgnore		1.0000	0.009
53	ST1	U	CCB		1.0000	-0.009
54	ST5	D	Drift		1.0000	1.041
55	WT	W	Wash		1.0000	-0.014
56	ST1	U	MB		1.0000	-0.019
57	D29	U	LCS		1.0000	2.517
58	A25	U	280-198069-c-17		50.0000	212.006
59	A26	U	280-198069-c-17 MS		50.0000	254.371
60	A27	U	280-198069-c-17 MSC		50.0000	252.155
61	A28	U	280-198069-a-1		50.0000	923.739
62	A29	U	280-198069-c-2		50.0000	98.209
63	A30	U	280-198069-a-5		50.0000	65.774
64	A31	U	280-198069-c-12		50.0000	212.581
65	A32	U	280-198069-c-14		50.0000	38.560
66	A33	U	280-198069-a-18		50.0000	42.621
67	A34	U	280-198069-c-21		50.0000	8.501
68	A35	U	590-27482-c-1		2.0000	4.966
69	B1	U	590-27483-c-1		4.0000	7.123
70	WT	WI	WashIgnore		1.0000	0.002
71	ST6	U	CCV		1.0000	2.601
72	WT	WI	WashIgnore		1.0000	0.011
73	ST1	U	CCB		1.0000	0.017
74	ST5	D	Drift		1.0000	1.042
75	WT	W	Wash		1.0000	-0.014
76	B2	U	280-197931-a-13		50.0000	60.788
77	B3	U	280-197931-a-13 MS		50.0000	111.423
78	B4	U	280-197931-a-13 MSC		50.0000	110.917
79	B5	U	590-27485-c-1		20.0000	21.927
80	B6	U	590-27486-c-1		1.0000	0.044

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
81	B7	U	590-27487-b-1		4.0000	8.772
82	B8	U	590-27488-d-1		2.0000	5.463
83	B9	U	590-27489-d-1		1.0000	3.062
84	B10	U	280-197739-c-4		50.0000	96.819
85	B11	U	280-197931-a-1		20.0000	181.454
86	B12	U	280-197931-c-2		50.0000	61.135
87	B13	U	280-198073-b-1		1.0000	0.064
88	WT	WI	WashIgnore		1.0000	-0.005
89	ST6	U	CCV		1.0000	2.435
90	WT	WI	WashIgnore		1.0000	0.018
91	ST1	U	CCB		1.0000	0.001
92	ST5	D	Drift		1.0000	1.126
93	WT	W	Wash		1.0000	-0.014
94	ST1	U	MB		1.0000	0.006
95	D29	U	LCS		1.0000	2.448
96	B14	U	280-197811-c-4		1.0000	0.043
97	B15	U	280-197811-c-4 MS		1.0000	1.058
98	B16	U	280-197811-c-4 MSD		1.0000	1.039
99	B17	U	280-197811-c-5		1.0000	0.043
100	B18	U	280-197811-c-6		1.0000	0.002
101	B19	U	280-197811-c-7		1.0000	0.056
102	B20	U	280-197811-c-8		1.0000	0.012
103	B21	U	280-197811-c-9		1.0000	0.015
104	B22	U	280-197811-c-10		1.0000	0.026
105	B23	U	280-197811-a-11		1.0000	-0.010
106	B24	U	280-197655-a-1		1.0000	0.174
107	B25	U	280-197655-a-2		1.0000	0.082
108	WT	WI	WashIgnore		1.0000	-0.015
109	WT	WI	WashIgnore		1.0000	-0.019
110	WT	WI	WashIgnore		1.0000	-0.020
111	WT	WI	WashIgnore		1.0000	-0.021
112	ST6	U	CCV		1.0000	2.544
113	WT	WI	WashIgnore		1.0000	0.012
114	ST1	U	CCB		1.0000	0.019
115	ST5	D	Drift		1.0000	1.044
116	WT	W	Wash		1.0000	-0.014
117	B26	U	280-197655-a-4		1.0000	18.438
118	B27	U	280-197655-a-4 MS		1.0000	18.438
119	B28	U	280-197655-a-4 MSD		1.0000	18.438
120	B29	U	280-197655-a-5		1.0000	18.438

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
121	B30	U	280-197655-a-6		1.0000	3.336
122	B31	U	280-197655-a-7		1.0000	0.873
123	B32	U	280-197818-a-7		2.0000	3.259
124	B33	U	280-197819-a-7		4.0000	8.922
125	B34	U	280-198058-a-1		50.0000	230.127
126	B35	U	280-198058-a-2		50.0000	225.472
127	C1	U	280-198058-a-8		25.0000	27.682
128	C2	U	280-198058-a-10		50.0000	49.596
129	WT	WI	WashIgnore		1.0000	0.009
130	ST6	U	CCV		1.0000	2.580
131	WT	WI	WashIgnore		1.0000	0.018
132	ST1	U	CCB		1.0000	-0.004
133	ST5	D	Drift		1.0000	1.041
134	WT	W	Wash		1.0000	-0.014
135	ST1	U	MB		1.0000	0.002
136	D29	U	LCS		1.0000	2.532
137	C3	U	280-197833-c-1		1.0000	0.044
138	C4	U	280-197833-c-1 MS		1.0000	1.020
139	C5	U	280-197833-c-1 MSD		1.0000	1.042
140	C6	U	280-198058-a-11		1.0000	0.004
141	C7	U	280-198058-a-12		25.0000	28.474
142	C8	U	280-198058-a-13		25.0000	287.226
143	C9	U	280-198058-a-14		1.0000	0.200
144	C10	U	280-198058-a-15		50.0000	176.307
145	C11	U	280-197842-a-1		1.0000	0.378
146	C12	U	280-197738-e-5		1.0000	3.811
147	C13	U	280-197738-e-6		1.0000	0.597
148	C14	U	280-197738-e-12		1.0000	0.340
149	WT	WI	WashIgnore		1.0000	-0.039
150	ST6	U	CCV		1.0000	2.565
151	WT	WI	WashIgnore		1.0000	-0.009
152	ST1	U	CCB		1.0000	0.007
153	ST5	D	Drift		1.0000	1.048
154	WT	W	Wash		1.0000	-0.014
155	C15	U	280-197742-b-1		1.0000	0.061
156	C16	U	280-197742-b-1 MS		1.0000	1.126
157	C17	U	280-197742-b-1 MSD		1.0000	1.127
158	C18	U	280-197742-b-2		1.0000	0.158
159	C19	U	280-197738-e-1		1.0000	2.473
160	C20	U	280-197738-e-4		1.0000	1.208

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
161	C21	U	280-197848-e-2		1.0000	1.562
162	C22	U	280-197738-e-10		1.0000	2.123
163	C23	U	280-197738-e-3		1.0000	1.463
164	C24	U	280-197738-e-16		1.0000	2.014
165	C25	U	280-197738-d-17		1.0000	2.928
166	C26	U	280-197682-e-3		1.0000	2.123
167	WT	WI	WashIgnore		1.0000	0.004
168	ST6	U	CCV		1.0000	2.595
169	WT	WI	WashIgnore		1.0000	0.013
170	ST1	U	CCB		1.0000	0.002
171	ST5	D	Drift		1.0000	1.073
172	WT	W	Wash		1.0000	-0.014
173	ST1	U	MB		1.0000	0.000
174	D29	U	LCS		1.0000	2.532
175	C27	U	280-197682-e-7		1.0000	5.533
176	C28	U	280-197682-e-7 MS		1.0000	6.352
177	C29	U	280-197682-e-7 MSD		1.0000	6.381
178	C30	U	280-197848-e-5		10.0000	12.882
179	C31	U	280-197714-b-1		100.0000	95.811
180	C32	U	280-197682-e-4		2.0000	2.724
181	C33	U	280-197738-d-2		2.0000	2.616
182	C34	U	280-197738-e-8		20.0000	25.994
183	C35	U	280-197738-e-9		2.0000	1.261
184	D1	U	280-197738-e-13		5.0000	7.853
185	D2	U	280-197738-e-14		10.0000	14.937
186	D3	U	280-197738-e-15		10.0000	11.156
187	WT	WI	WashIgnore		1.0000	-0.008
188	ST6	U	CCV		1.0000	2.568
189	WT	WI	WashIgnore		1.0000	-0.004
190	ST1	U	CCB		1.0000	0.006
191	ST5	D	Drift		1.0000	1.069
192	WT	W	Wash		1.0000	-0.014
193	D4	U	280-197554-b-4		1.0000	0.274
194	D5	U	280-197554-b-4 MS		1.0000	1.301
195	D6	U	280-197554-b-4 MSD		1.0000	1.339
196	D7	U	280-197738-e-18		2.0000	4.259
197	D8	U	280-197848-e-1		1.0000	1.962
198	D9	U	280-197848-e-3		5.0000	7.359
199	D10	U	280-197848-e-4		5.0000	9.847
200	D11	U	280-198008-c-5		500.0000	1055.775

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
201	D12	U	280-197471-b-11		1.0000	0.447
202	D13	U	280-197554-e-15		1.0000	0.417
203	D14	U	280-197606-b-2		2.0000	3.134
204	D15	U	280-197607-b-1		1.0000	0.029
205	WT	WI	WashIgnore		1.0000	-0.014
206	ST6	U	CCV		1.0000	2.558
207	WT	WI	WashIgnore		1.0000	0.013
208	ST1	U	CCB		1.0000	0.014
209	ST5	D	Drift		1.0000	1.090
210	WT	W	Wash		1.0000	-0.014
211	E	E	EndRun		1.0000	-0.014

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
1	0.0000	Oct 19 2024 11:16:00AM	-0.014
2	0.9572	Oct 19 2024 11:18:00AM	3.957
3	0.0111	Oct 19 2024 11:21:00AM	0.033
4	0.2564	Oct 19 2024 11:24:00AM	1.050
5	0.0000	Oct 19 2024 11:26:00AM	-0.014
6	0.0025	Oct 19 2024 11:28:00AM	-0.003
7	0.0132	Oct 19 2024 11:30:00AM	0.041
8	0.0245	Oct 19 2024 11:32:00AM	0.088
9	0.1231	Oct 19 2024 11:34:00AM	0.497
10	0.2493	Oct 19 2024 11:37:00AM	1.021
11	0.6126	Oct 19 2024 11:39:00AM	2.528
12	0.9623	Oct 19 2024 11:41:00AM	3.978
13	0.0074	Oct 19 2024 11:43:00AM	0.017
14	0.2566	Oct 19 2024 11:45:00AM	1.051
15	0.0000	Oct 19 2024 11:47:00AM	-0.014
16	0.6045	Oct 19 2024 11:50:00AM	2.494
17	0.0081	Oct 19 2024 11:52:00AM	0.020
18	0.0017	Oct 19 2024 11:54:00AM	-0.006
19	0.6064	Oct 19 2024 11:56:00AM	2.502
20	0.0394	Oct 19 2024 11:58:00AM	0.150
21	0.2812	Oct 19 2024 12:00:00PM	1.153
22	0.2825	Oct 19 2024 12:02:00PM	1.158
23	0.0085	Oct 19 2024 12:05:00PM	0.022
24	0.0095	Oct 19 2024 12:07:00PM	0.026
25	0.0598	Oct 19 2024 12:09:00PM	0.234
26	0.0299	Oct 19 2024 12:11:00PM	0.111
27	0.0297	Oct 19 2024 12:13:00PM	0.110
28	0.0260	Oct 19 2024 12:16:00PM	0.094
29	0.0324	Oct 19 2024 12:18:00PM	0.121
30	0.0217	Oct 19 2024 12:20:00PM	0.076
31	0.0584	Oct 19 2024 12:22:00PM	0.229
32	-0.0033	Oct 19 2024 12:24:00PM	-0.027
33	0.5999	Oct 19 2024 12:26:00PM	2.475
34	0.0036	Oct 19 2024 12:29:00PM	0.002
35	0.0012	Oct 19 2024 12:31:00PM	-0.009
36	0.2607	Oct 19 2024 12:33:00PM	1.068
37	0.0000	Oct 19 2024 12:35:00PM	-0.014
38	0.0151	Oct 19 2024 12:38:00PM	0.049
39	0.2581	Oct 19 2024 12:39:00PM	1.057
40	0.2688	Oct 19 2024 12:42:00PM	1.101

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
41	0.0099	Oct 19 2024 12:44:00PM	0.028
42	0.0334	Oct 19 2024 12:46:00PM	0.125
43	0.4832	Oct 19 2024 12:48:00PM	1.991
44	0.1693	Oct 19 2024 12:50:00PM	0.689
45	0.3923	Oct 19 2024 12:52:00PM	1.614
46	0.2531	Oct 19 2024 12:55:00PM	1.036
47	0.6574	Oct 19 2024 12:57:00PM	2.714
48	0.3174	Oct 19 2024 12:59:00PM	1.303
49	0.3430	Oct 19 2024 1:01:00PM	1.409
50	0.0024	Oct 19 2024 1:03:00PM	-0.004
51	0.6170	Oct 19 2024 1:05:00PM	2.546
52	0.0055	Oct 19 2024 1:07:00PM	0.009
53	0.0012	Oct 19 2024 1:10:00PM	-0.009
54	0.2543	Oct 19 2024 1:12:00PM	1.041
55	0.0000	Oct 19 2024 1:14:00PM	-0.014
56	-0.0013	Oct 19 2024 1:16:00PM	-0.019
57	0.6101	Oct 19 2024 1:18:00PM	2.517
58	1.0254	Oct 19 2024 1:21:00PM	4.240
59	1.2297	Oct 19 2024 1:23:00PM	5.087
60	1.2190	Oct 19 2024 1:25:00PM	5.043
61	4.4570	Oct 19 2024 1:27:00PM	18.475
62	0.4768	Oct 19 2024 1:30:00PM	1.964
63	0.3204	Oct 19 2024 1:32:00PM	1.315
64	1.0282	Oct 19 2024 1:34:00PM	4.252
65	0.1892	Oct 19 2024 1:36:00PM	0.771
66	0.2088	Oct 19 2024 1:38:00PM	0.852
67	0.0442	Oct 19 2024 1:40:00PM	0.170
68	0.6019	Oct 19 2024 1:42:00PM	2.483
69	0.4326	Oct 19 2024 1:44:00PM	1.781
70	0.0038	Oct 19 2024 1:47:00PM	0.002
71	0.6302	Oct 19 2024 1:49:00PM	2.601
72	0.0059	Oct 19 2024 1:51:00PM	0.011
73	0.0074	Oct 19 2024 1:53:00PM	0.017
74	0.2544	Oct 19 2024 1:55:00PM	1.042
75	0.0000	Oct 19 2024 1:57:00PM	-0.014
76	0.2963	Oct 19 2024 1:59:00PM	1.216
77	0.5405	Oct 19 2024 2:02:00PM	2.228
78	0.5380	Oct 19 2024 2:04:00PM	2.218
79	0.2676	Oct 19 2024 2:06:00PM	1.096
80	0.0139	Oct 19 2024 2:08:00PM	0.044

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
81	0.5320	Oct 19 2024 2:10:00PM	2.193
82	0.6618	Oct 19 2024 2:12:00PM	2.732
83	0.7414	Oct 19 2024 2:15:00PM	3.062
84	0.4701	Oct 19 2024 2:17:00PM	1.936
85	2.1904	Oct 19 2024 2:19:00PM	9.073
86	0.2980	Oct 19 2024 2:21:00PM	1.223
87	0.0187	Oct 19 2024 2:23:00PM	0.064
88	0.0020	Oct 19 2024 2:26:00PM	-0.005
89	0.5903	Oct 19 2024 2:28:00PM	2.435
90	0.0075	Oct 19 2024 2:30:00PM	0.018
91	0.0035	Oct 19 2024 2:32:00PM	0.001
92	0.2746	Oct 19 2024 2:34:00PM	1.126
93	0.0000	Oct 19 2024 2:36:00PM	-0.014
94	0.0047	Oct 19 2024 2:39:00PM	0.006
95	0.5935	Oct 19 2024 2:41:00PM	2.448
96	0.0135	Oct 19 2024 2:43:00PM	0.043
97	0.2582	Oct 19 2024 2:45:00PM	1.058
98	0.2538	Oct 19 2024 2:47:00PM	1.039
99	0.0135	Oct 19 2024 2:49:00PM	0.043
100	0.0037	Oct 19 2024 2:52:00PM	0.002
101	0.0167	Oct 19 2024 2:54:00PM	0.056
102	0.0061	Oct 19 2024 2:56:00PM	0.012
103	0.0069	Oct 19 2024 2:58:00PM	0.015
104	0.0095	Oct 19 2024 3:00:00PM	0.026
105	0.0009	Oct 19 2024 3:02:00PM	-0.010
106	0.0451	Oct 19 2024 3:05:00PM	0.174
107	0.0231	Oct 19 2024 3:07:00PM	0.082
108	-0.0003	Oct 19 2024 3:09:00PM	-0.015
109	-0.0012	Oct 19 2024 3:11:00PM	-0.019
110	-0.0015	Oct 19 2024 3:13:00PM	-0.020
111	-0.0018	Oct 19 2024 3:15:00PM	-0.021
112	0.6165	Oct 19 2024 3:18:00PM	2.544
113	0.0061	Oct 19 2024 3:20:00PM	0.012
114	0.0079	Oct 19 2024 3:22:00PM	0.019
115	0.2549	Oct 19 2024 3:24:00PM	1.044
116	0.0000	Oct 19 2024 3:26:00PM	-0.014
117	4.4481	Oct 19 2024 3:29:00PM	18.438
118	4.4481	Oct 19 2024 3:31:00PM	18.438
119	4.4480	Oct 19 2024 3:33:00PM	18.438
120	4.4480	Oct 19 2024 3:36:00PM	18.438

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
121	0.8076	Oct 19 2024 3:38:00PM	3.336
122	0.2137	Oct 19 2024 3:39:00PM	0.873
123	0.3961	Oct 19 2024 3:41:00PM	1.629
124	0.5410	Oct 19 2024 3:44:00PM	2.231
125	1.1128	Oct 19 2024 3:46:00PM	4.603
126	1.0903	Oct 19 2024 3:48:00PM	4.509
127	0.2702	Oct 19 2024 3:50:00PM	1.107
128	0.2424	Oct 19 2024 3:52:00PM	0.992
129	0.0055	Oct 19 2024 3:54:00PM	0.009
130	0.6252	Oct 19 2024 3:57:00PM	2.580
131	0.0076	Oct 19 2024 3:59:00PM	0.018
132	0.0022	Oct 19 2024 4:01:00PM	-0.004
133	0.2542	Oct 19 2024 4:03:00PM	1.041
134	0.0000	Oct 19 2024 4:05:00PM	-0.014
135	0.0038	Oct 19 2024 4:08:00PM	0.002
136	0.6136	Oct 19 2024 4:10:00PM	2.532
137	0.0138	Oct 19 2024 4:12:00PM	0.044
138	0.2492	Oct 19 2024 4:14:00PM	1.020
139	0.2545	Oct 19 2024 4:16:00PM	1.042
140	0.0043	Oct 19 2024 4:18:00PM	0.004
141	0.2778	Oct 19 2024 4:20:00PM	1.139
142	2.7729	Oct 19 2024 4:23:00PM	11.489
143	0.0514	Oct 19 2024 4:25:00PM	0.200
144	0.8533	Oct 19 2024 4:27:00PM	3.526
145	0.0944	Oct 19 2024 4:29:00PM	0.378
146	0.9219	Oct 19 2024 4:31:00PM	3.811
147	0.1472	Oct 19 2024 4:33:00PM	0.597
148	0.0853	Oct 19 2024 4:36:00PM	0.340
149	-0.0061	Oct 19 2024 4:38:00PM	-0.039
150	0.6216	Oct 19 2024 4:40:00PM	2.565
151	0.0012	Oct 19 2024 4:42:00PM	-0.009
152	0.0050	Oct 19 2024 4:44:00PM	0.007
153	0.2560	Oct 19 2024 4:46:00PM	1.048
154	0.0000	Oct 19 2024 4:49:00PM	-0.014
155	0.0179	Oct 19 2024 4:51:00PM	0.061
156	0.2747	Oct 19 2024 4:53:00PM	1.126
157	0.2750	Oct 19 2024 4:55:00PM	1.127
158	0.0413	Oct 19 2024 4:57:00PM	0.158
159	0.5995	Oct 19 2024 4:59:00PM	2.473
160	0.2945	Oct 19 2024 5:02:00PM	1.208

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
161	0.3799	Oct 19 2024 5:04:00PM	1.562
162	0.5151	Oct 19 2024 5:06:00PM	2.123
163	0.3560	Oct 19 2024 5:08:00PM	1.463
164	0.4888	Oct 19 2024 5:10:00PM	2.014
165	0.7092	Oct 19 2024 5:12:00PM	2.928
166	0.5150	Oct 19 2024 5:15:00PM	2.123
167	0.0042	Oct 19 2024 5:17:00PM	0.004
168	0.6288	Oct 19 2024 5:19:00PM	2.595
169	0.0064	Oct 19 2024 5:21:00PM	0.013
170	0.0038	Oct 19 2024 5:23:00PM	0.002
171	0.2619	Oct 19 2024 5:25:00PM	1.073
172	0.0000	Oct 19 2024 5:28:00PM	-0.014
173	0.0032	Oct 19 2024 5:31:00PM	0.000
174	0.6136	Oct 19 2024 5:32:00PM	2.532
175	1.3372	Oct 19 2024 5:34:00PM	5.533
176	1.5346	Oct 19 2024 5:36:00PM	6.352
177	1.5415	Oct 19 2024 5:38:00PM	6.381
178	0.3138	Oct 19 2024 5:41:00PM	1.288
179	0.2342	Oct 19 2024 5:43:00PM	0.958
180	0.3317	Oct 19 2024 5:45:00PM	1.362
181	0.3185	Oct 19 2024 5:47:00PM	1.308
182	0.3166	Oct 19 2024 5:49:00PM	1.300
183	0.1553	Oct 19 2024 5:51:00PM	0.631
184	0.3819	Oct 19 2024 5:54:00PM	1.571
185	0.3633	Oct 19 2024 5:56:00PM	1.494
186	0.2722	Oct 19 2024 5:58:00PM	1.116
187	0.0012	Oct 19 2024 6:00:00PM	-0.008
188	0.6224	Oct 19 2024 6:02:00PM	2.568
189	0.0024	Oct 19 2024 6:04:00PM	-0.004
190	0.0048	Oct 19 2024 6:07:00PM	0.006
191	0.2609	Oct 19 2024 6:09:00PM	1.069
192	0.0000	Oct 19 2024 6:11:00PM	-0.014
193	0.0693	Oct 19 2024 6:13:00PM	0.274
194	0.3169	Oct 19 2024 6:15:00PM	1.301
195	0.3261	Oct 19 2024 6:17:00PM	1.339
196	0.5166	Oct 19 2024 6:20:00PM	2.129
197	0.4761	Oct 19 2024 6:22:00PM	1.962
198	0.3581	Oct 19 2024 6:24:00PM	1.472
199	0.4780	Oct 19 2024 6:26:00PM	1.969
200	0.5123	Oct 19 2024 6:28:00PM	2.112

FlowAccessV3 Results Report

Run Name : Ammonia10192024, Run Database Ref : Skalar20241019A0

DateTime :Oct 19 2024 11:06:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
201	0.1111	Oct 19 2024 6:30:00PM	0.447
202	0.1038	Oct 19 2024 6:33:00PM	0.417
203	0.3810	Oct 19 2024 6:35:00PM	1.567
204	0.0103	Oct 19 2024 6:37:00PM	0.029
205	-0.0001	Oct 19 2024 6:39:00PM	-0.014
206	0.6198	Oct 19 2024 6:41:00PM	2.558
207	0.0063	Oct 19 2024 6:44:00PM	0.013
208	0.0067	Oct 19 2024 6:46:00PM	0.014
209	0.2661	Oct 19 2024 6:48:00PM	1.090
210	0.0000	Oct 19 2024 6:50:00PM	-0.014
211	0.0000	Oct 19 2024 6:52:00PM	-0.014

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L1_03_CD_1_Total.d
Lims ID: STD L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 10-Oct-2024 16:28:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L1
Misc. Info.: 280-0138461-001
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:26 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 10-Oct-2024 18:09:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.320	2.320	0.000	1314137	NC	NC	
2 Chloride	3.203	3.203	0.000	5901815	NC	NC	
3 Nitrite as N	3.807	3.807	0.000	2385454	0.2000	0.2072	
4 Bromide	5.108	5.108	0.000	338549	NC	NC	
6 Sulfate	5.612	5.612	0.000	3171413	NC	NC	
5 Nitrate as N	5.993	5.993	0.000	2368547	0.2000	0.2140	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC CAL cl/so4_00563

Amount Added: 0.04

Units: mL

IC Cal low_00812

Amount Added: 0.04

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L1_03_CD_1_Total.d

Injection Date: 10-Oct-2024 16:28:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: STD L1

Worklist Smp#: 1

Client ID:

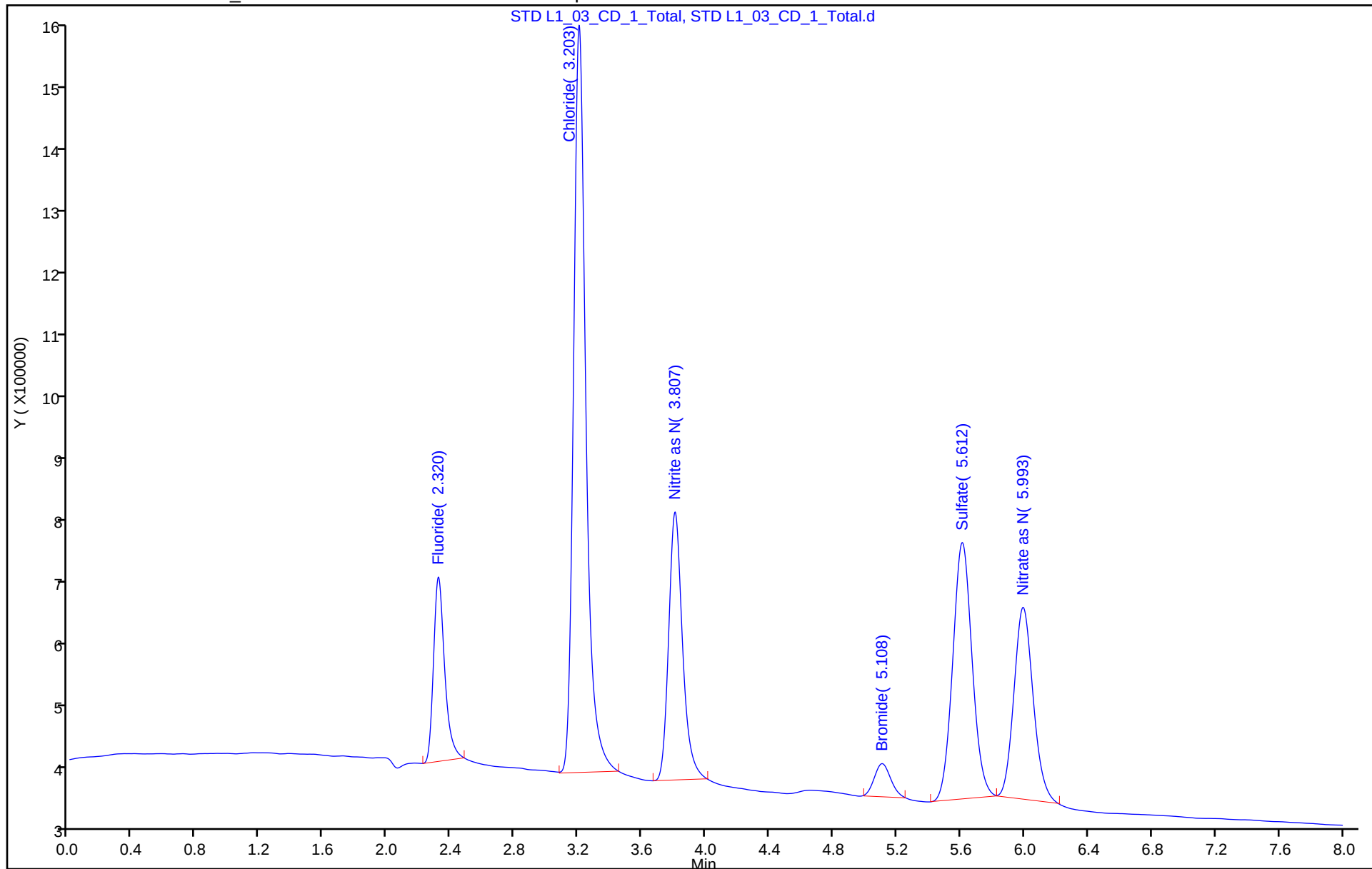
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L2_04_CD_1_Total.d
Lims ID: STD L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 10-Oct-2024 16:39:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L2
Misc. Info.: 280-0138461-002
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:27 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.325	2.325	0.000	4036817	NC	NC	
2 Chloride	3.208	3.208	0.000	17630207	NC	NC	
3 Nitrite as N	3.812	3.812	0.000	7187621	0.5000	0.4897	
4 Bromide	5.110	5.110	0.000	1014810	NC	NC	
6 Sulfate	5.613	5.613	0.000	10535540	NC	NC	
5 Nitrate as N	5.990	5.990	0.000	7800713	0.5000	0.4937	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC CAL cI/so4_00563

Amount Added: 0.10

Units: mL

IC Cal low_00812

Amount Added: 0.10

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L2_04_CD_1_Total.d

Injection Date: 10-Oct-2024 16:39:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: STD L2

Worklist Smp#: 2

Client ID:

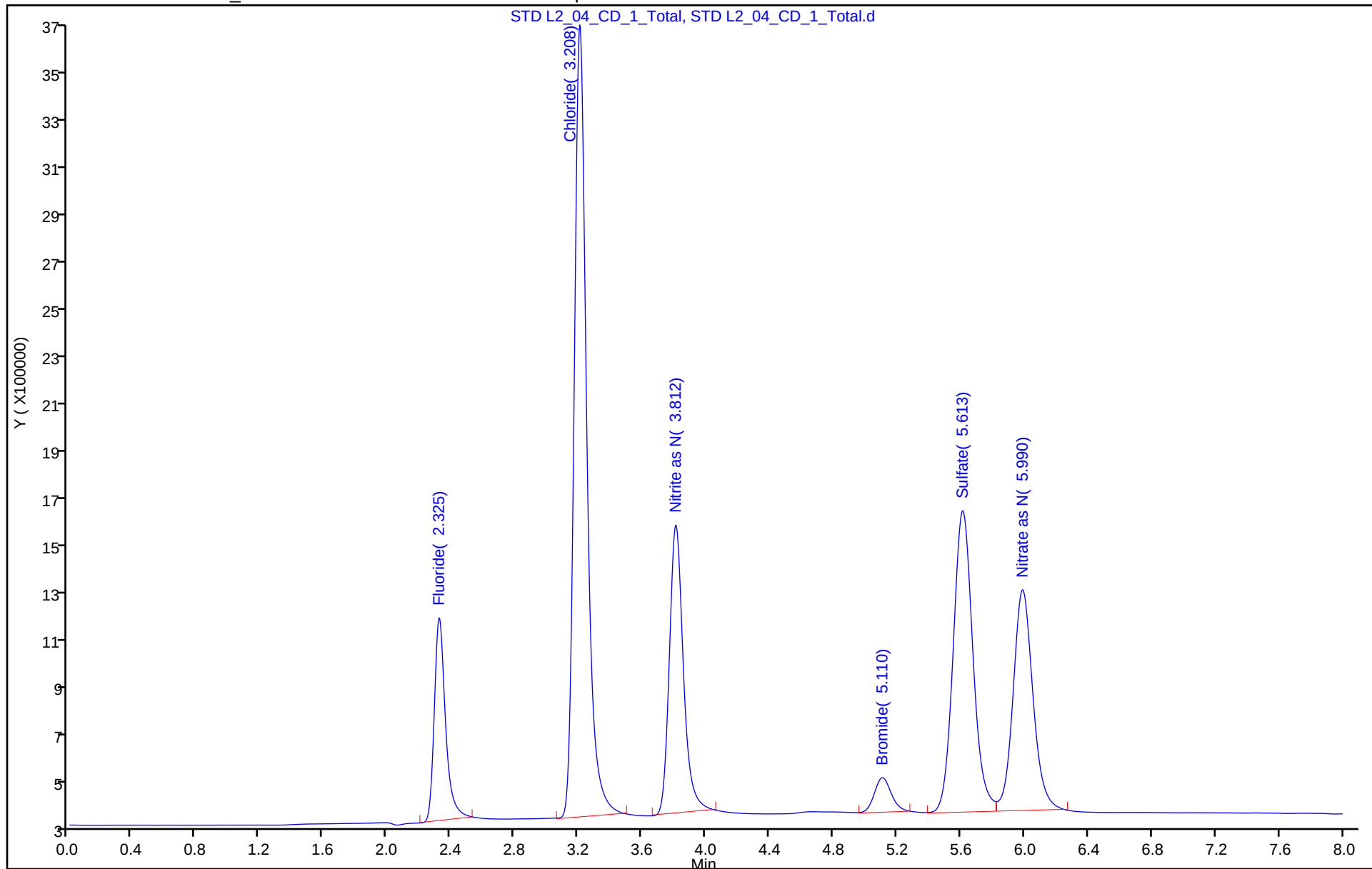
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L3_05_CD_1_Total.d
Lims ID: STD L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-Oct-2024 16:50:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L3
Misc. Info.: 280-0138461-003
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:28 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.328	2.328	0.000	10817194	NC	NC	
2 Chloride	3.208	3.208	0.000	35018223	NC	NC	
3 Nitrite as N	3.813	3.813	0.000	15464561	1.00	0.9767	
4 Bromide	5.110	5.110	0.000	2184637	NC	NC	
6 Sulfate	5.605	5.605	0.000	24928218	NC	NC	
5 Nitrate as N	5.985	5.985	0.000	16382808	1.00	0.9356	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC CAL c/so4_00563

Amount Added: 0.20

Units: mL

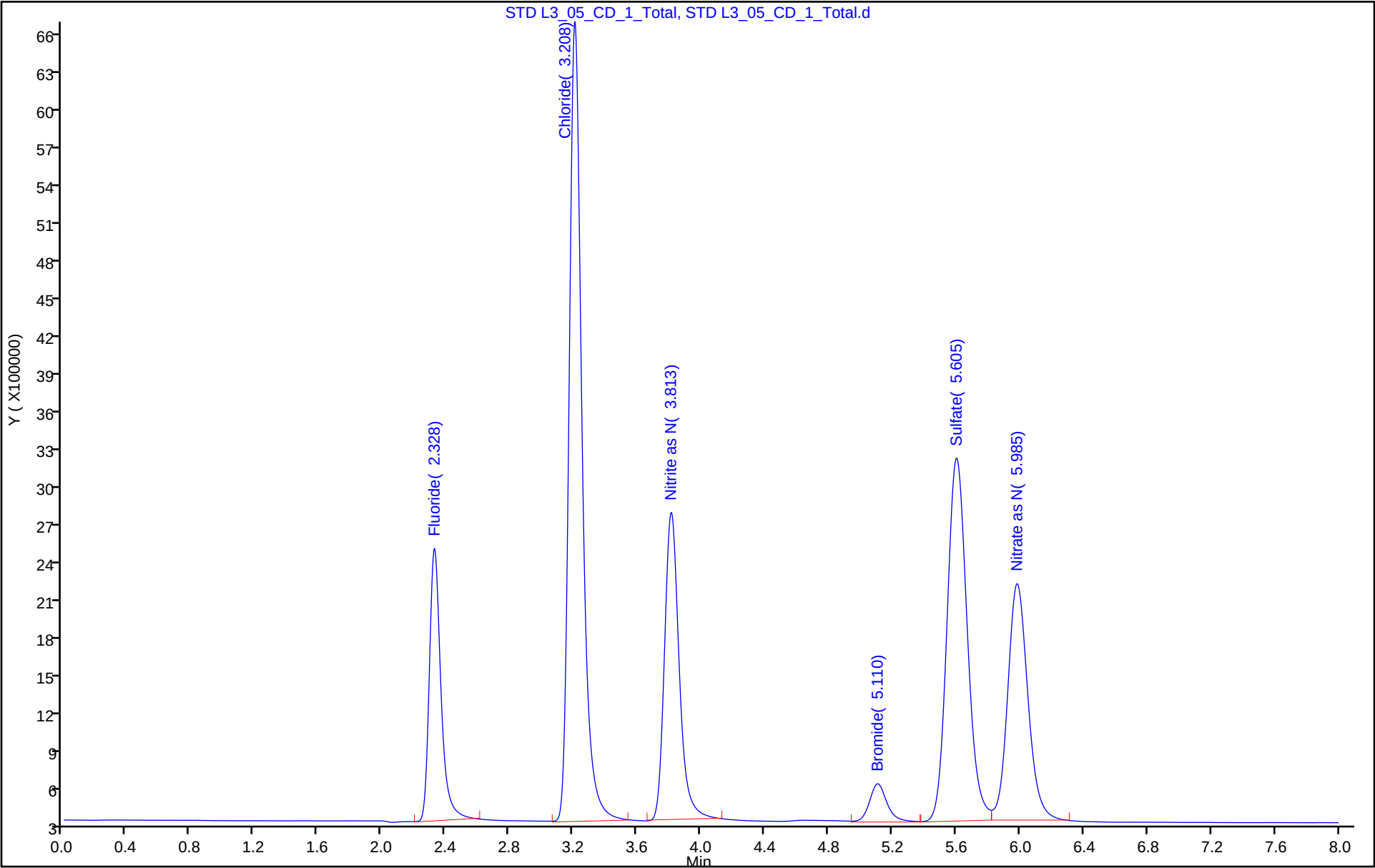
IC Cal low_00812

Amount Added: 0.20

Units: mL

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L3_05_CD_1_Total.d				
Injection Date:	10-Oct-2024 16:50:00	Instrument ID:	WC_IonChrom17	Operator ID:	
Lims ID:	STD L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC17	Limit Group:	Wet - Anions		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L4_06_CD_1_Total.d
Lims ID: STD L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 10-Oct-2024 17:01:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L4
Misc. Info.: 280-0138461-004
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:29 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 11-Oct-2024 15:33:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.315	2.315	0.000	45714658	NC	NC	
2 Chloride	3.188	3.188	0.000	448708969	NC	NC	
3 Nitrite as N	3.803	3.803	0.000	67219682	4.00	4.02	
4 Bromide	5.078	5.078	0.000	10617460	NC	NC	
6 Sulfate	5.480	5.480	0.000	327953680	NC	NC	
5 Nitrate as N	5.930	5.930	0.000	75698302	4.00	3.99	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC CAL cl/so4_00563

Amount Added: 2.40

Units: mL

IC Cal low_00812

Amount Added: 0.80

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L4_06_CD_1_Total.d

Injection Date: 10-Oct-2024 17:01:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: STD L4

Worklist Smp#: 4

Client ID:

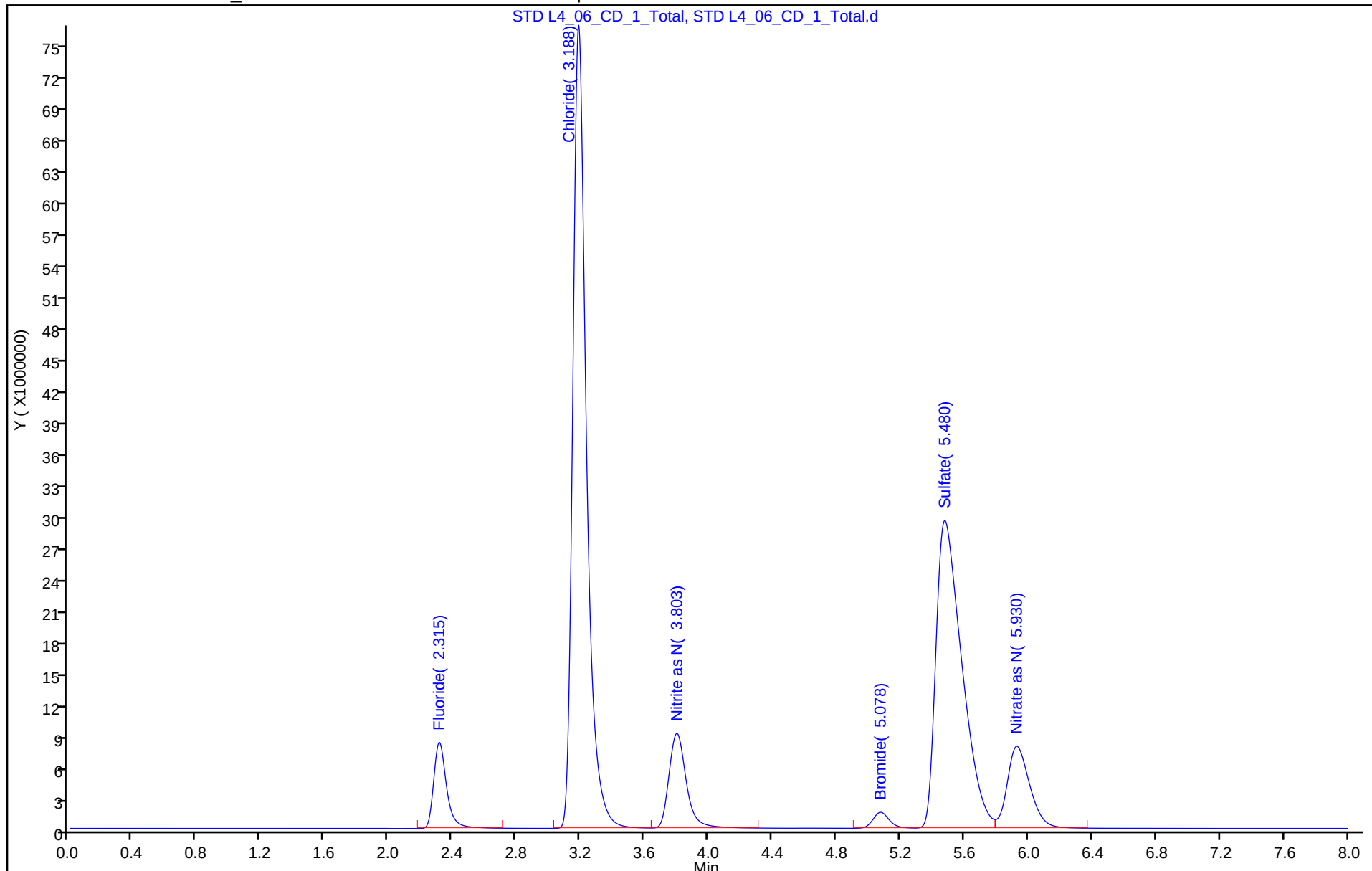
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L5_07_CD_1_Total.d
Lims ID: STD L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 10-Oct-2024 17:12:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L5
Misc. Info.: 280-0138461-005
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:30 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 10-Oct-2024 18:10:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.340	2.340	0.000	98131244	NC	NC	
2 Chloride	3.203	3.203	0.000	874525239	NC	NC	
3 Nitrite as N	3.827	3.827	0.000	136228857	8.00	8.08	
4 Bromide	5.082	5.082	0.000	22713504	NC	NC	M
6 Sulfate	5.422	5.422	0.000	642771642	NC	NC	M
5 Nitrate as N	5.915	5.915	0.000	155930896	8.00	8.12	Ma

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cI/so4_00563

Amount Added: 4.80

Units: mL

IC Cal low_00812

Amount Added: 1.60

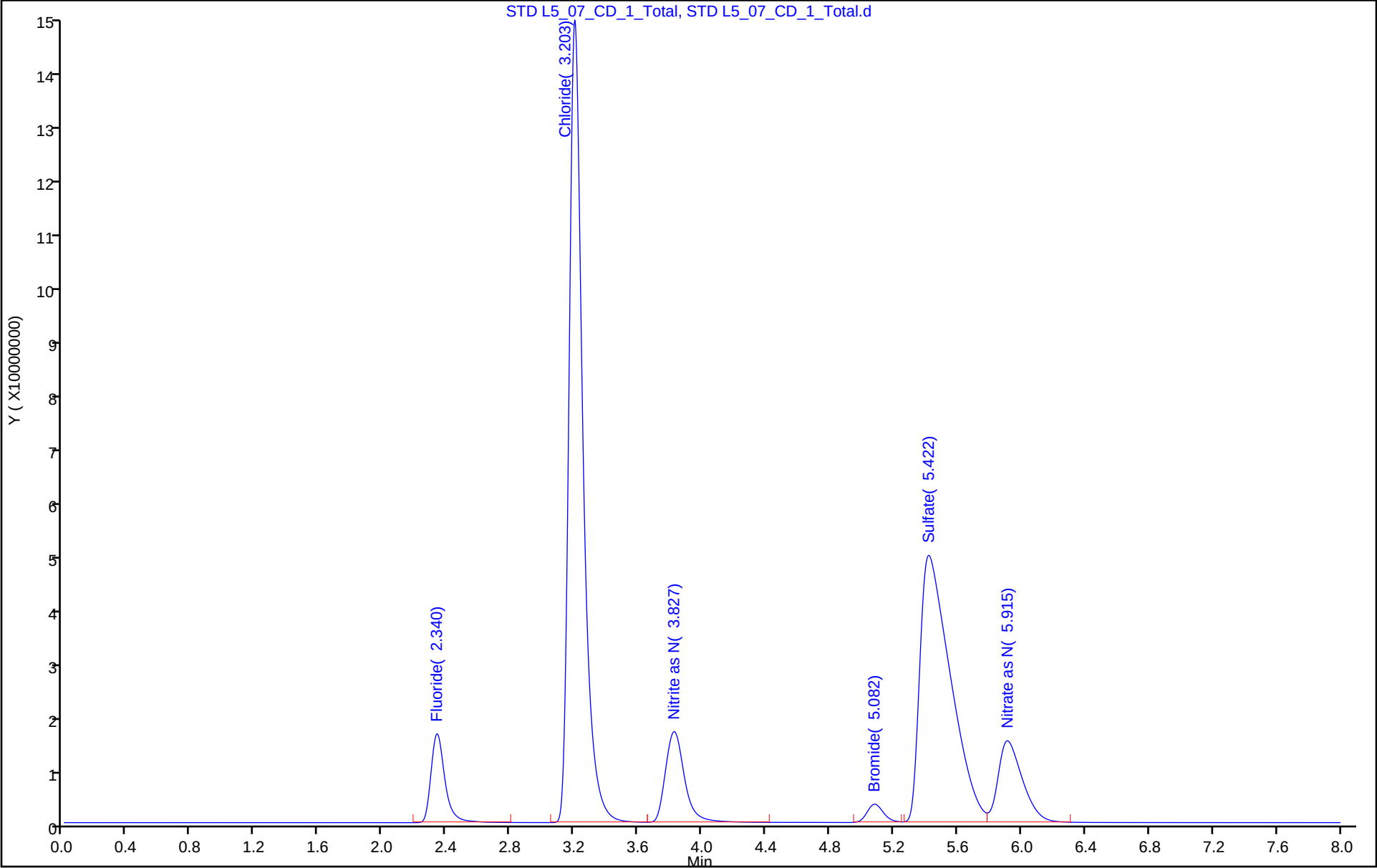
Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L5_07_CD_1_Total.d
Injection Date: 10-Oct-2024 17:12:00
Lims ID: STD L5
Client ID:
Injection Vol: 5.0 ul
Method: Anions_IC17

Instrument ID: WC_IonChrom17
Dil. Factor: 1.0000
Limit Group: Wet - Anions

Operator ID:
Worklist Smp#: 5
ALS Bottle#: 0



Eurofins Denver

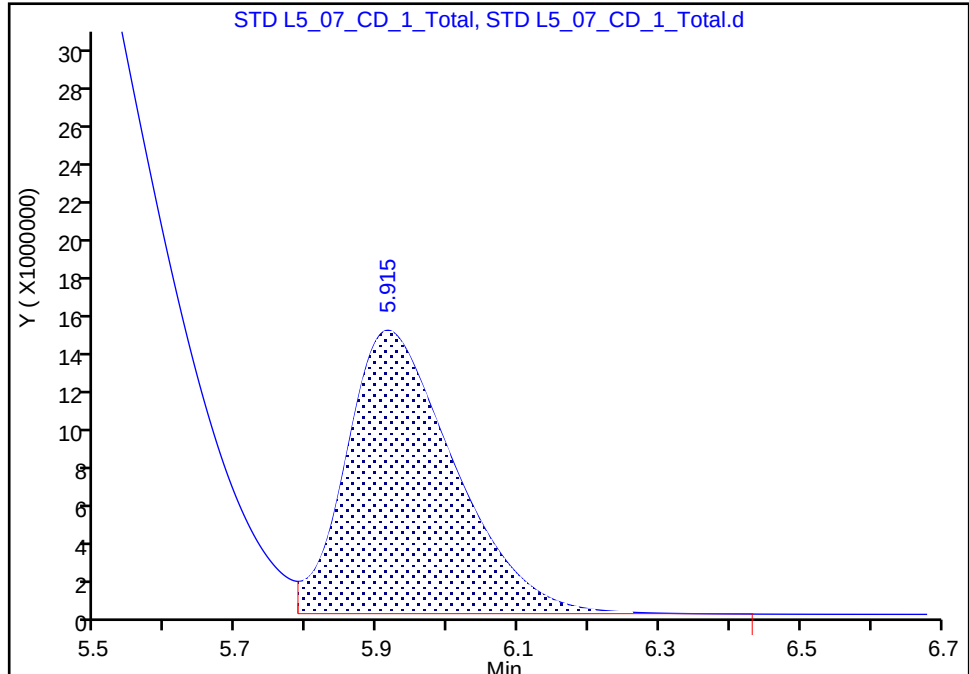
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Injection Date: 10-Oct-2024 17:12:00 Instrument ID: WC_IonChrom17
Lims ID: STD L5
Client ID:
Operator ID:
Injection Vol: 5.0 ul
Method: Anions_IC17
Column:
ALS Bottle#: 0 Worklist Smp#: 5
Dil. Factor: 1.0000
Limit Group: Wet - Anions
Detector: 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

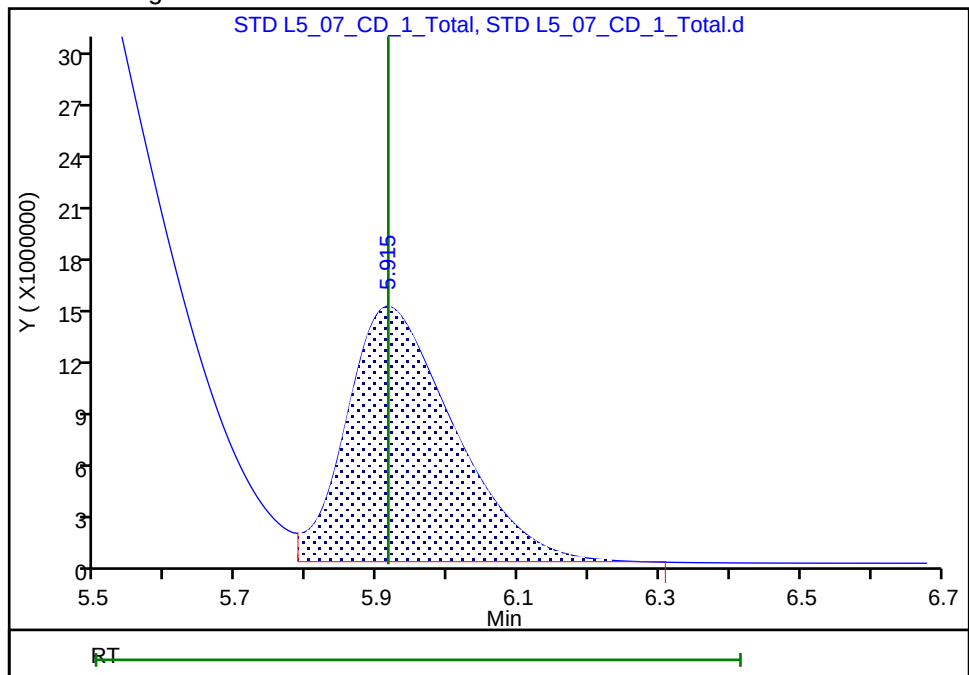
RT: 5.92
Area: 157831776
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 5.92
Area: 155930896
Amount: 8.120982
Amount Units: ug/ml

Manual Integration Results



Reviewer: XAY4, 11-Oct-2024 17:30:05 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Lims ID: STD L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 10-Oct-2024 17:23:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: 280-0138461-006
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:33:31 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 10-Oct-2024 18:10:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.342	2.342	0.000	121177622	NC	NC	
2 Chloride	3.197	3.197	0.000	1490241939	NC	NC	
3 Nitrite as N	3.825	3.825	0.000	167537323	10.0	9.92	
4 Bromide	5.063	5.063	0.000	25771678	NC	NC	M
6 Sulfate	5.340	5.340	0.000	1089011015	NC	NC	M
5 Nitrate as N	5.897	5.897	0.000	191374928	10.0	9.95	Ma

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cI/so4_00563 Amount Added: 8.00 Units: mL
IC Cal low_00812 Amount Added: 2.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d

Injection Date: 10-Oct-2024 17:23:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: STD L6

Worklist Smp#: 6

Client ID:

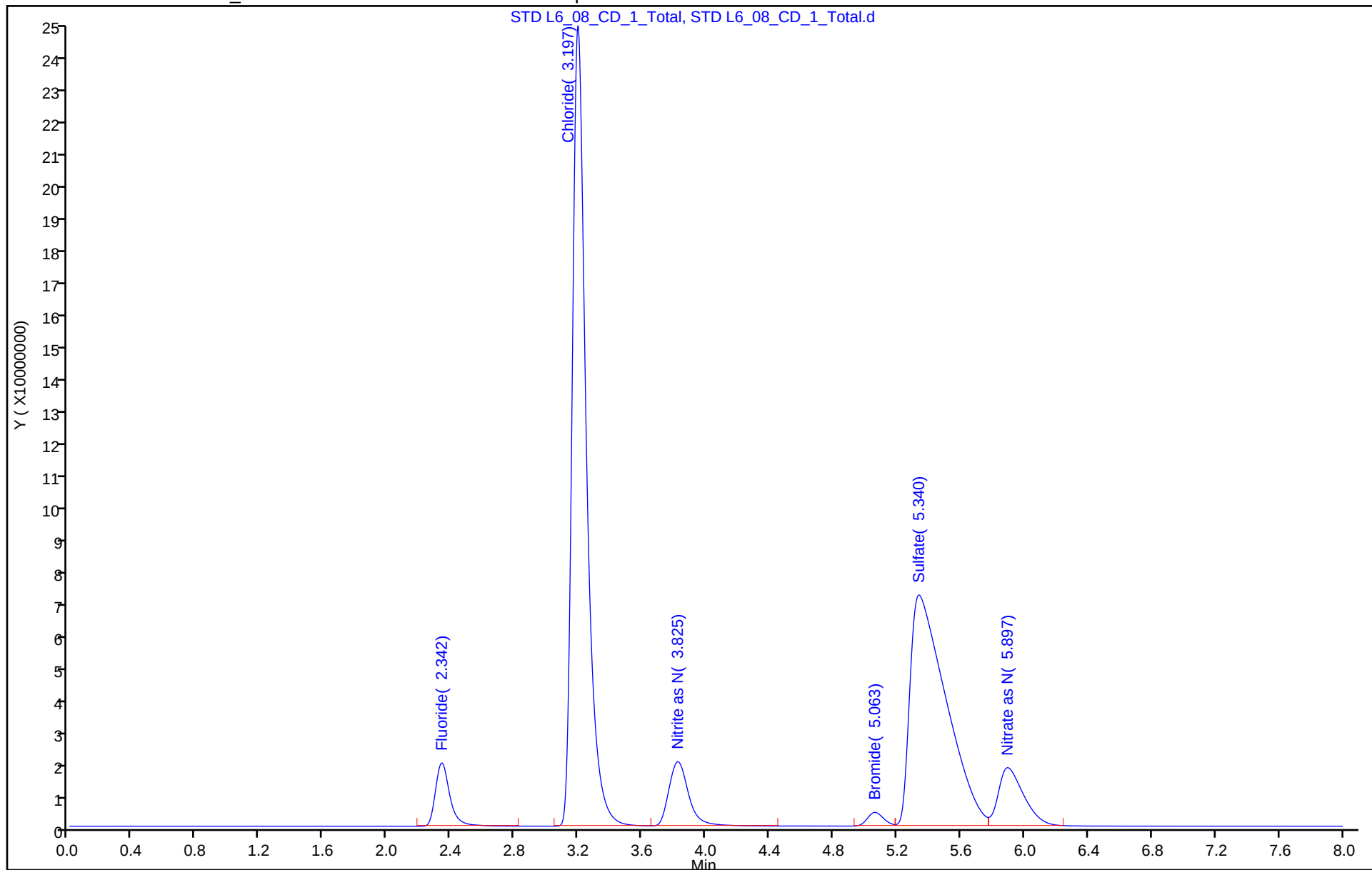
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver

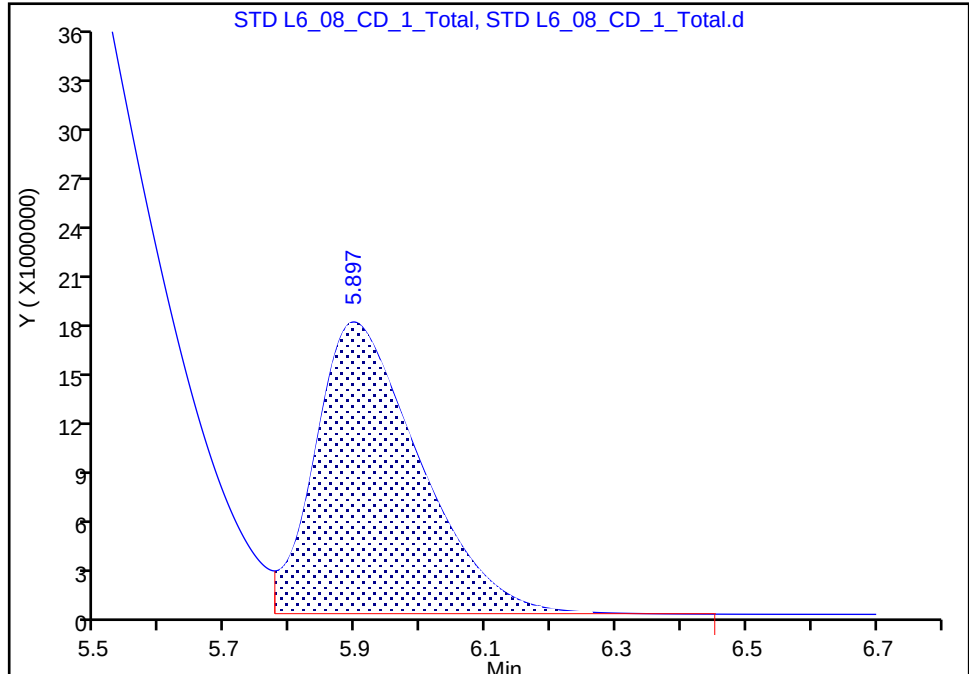
Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Injection Date: 10-Oct-2024 17:23:00 Instrument ID: WC_IonChrom17
Lims ID: STD L6
Client ID:
Operator ID:
Injection Vol: 5.0 ul
Method: Anions_IC17
Column:
ALS Bottle#: 0 Worklist Smp#: 6
Dil. Factor: 1.0000
Limit Group: Wet - Anions
Detector: 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

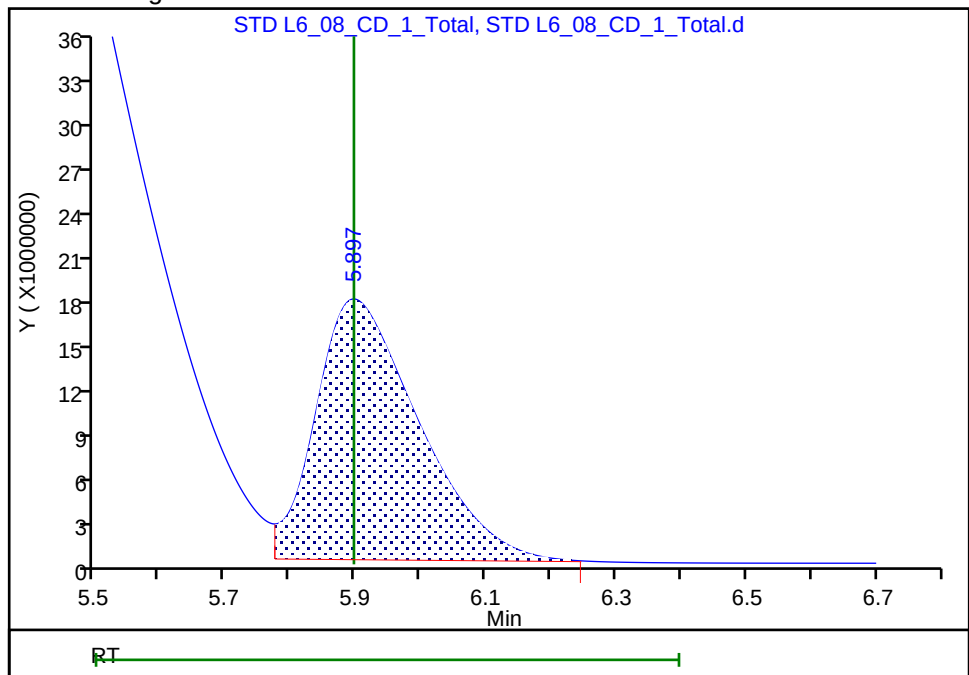
RT: 5.90
Area: 197930569
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 5.90
Area: 191374928
Amount: 9.946013
Amount Units: ug/ml

Manual Integration Results



Reviewer: XAY4, 11-Oct-2024 17:30:52 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Status Report

Page 1 of 3

WC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	ASub List	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status				Client		Project			PM	
Refrigerator			Prep Chain	Client ID		Result History				
Dilution History			PM							
Active	10/10/24 09:38	10/24/2024	10/22/2024	Water	10/10/24 09:20	280-J197814-1	No	197814	10/08/24 09:38	
	280-197814-4	Water			300_48HR	Ready	No	300_48HR		
	(MOD) Pick a Reference Price							NBS		
202 & 59 & Seattle & VS-15 & VS-5		Stone, N								
Active	10/10/24 11:40	10/24/2024	10/22/2024	Water	10/10/24 09:20	280-J197814-1	No	197814	10/08/24 11:40	
	280-197814-5	Water			300_48HR	Ready	No	300_48HR		
	(MOD) Pick a Reference Price							NBS		
202 & 59 & Seattle & VS-15 & VS-5		Stone, N								
Active	10/10/24 12:00	10/24/2024	10/22/2024	Water	10/10/24 09:20	280-J197814-1	No	197814	10/08/24 12:00	
	280-197814-6	Water			300_48HR	Ready	No	300_48HR		
	(MOD) Pick a Reference Price							NBS		
202 & 59 & Seattle & VS-15 & VS-5		Stone, N								
Active	10/10/24 14:07	10/24/2024	10/22/2024	Water	10/10/24 09:20	280-J197814-1	No	197814	10/08/24 14:07	
	280-197814-7	Water			300_48HR	Ready	No	300_48HR		
	(MOD) Pick a Reference Price							NBS		
202 & 59 & Seattle & VS-15 & VS-5		Stone, N								
Active	10/10/24 15:41	10/24/2024	10/22/2024	Water	10/10/24 09:20	280-J197814-1	No	197814	10/08/24 15:41	
	280-197814-8	Water			300_48HR	Ready	No	300_48HR		
	(MOD) Pick a Reference Price							NBS		
202 & 59 & Seattle & VS-15 & VS-5		Stone, N								
Active	10/11/24 06:50	10/31/2024	10/28/2024	Water	10/10/24 09:20	280-J197842-1	No	197842	10/09/24 06:50	
	280-197842-1	Water			9056_48H_DOD5	Ready	No	9056_48H_DOD5		
	(MOD) Nitrate only							PJM		
206		McEntee, P								

10/10/2024 6:04:07PM

Status Report

WIC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	Sample Matrix	Container Matrix	Client	Login Sample Type	Method	Status	Batch	A-Method	
A-Status	ASub List	Prep Chain	Client ID	Project	Result History					
Refrigerator	PM									
Dilution History	PM									

Active	10/11/24 07:00	10/31/2024	10/28/2024	Water	Field Duplicate	10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 07:00
	280-197843-9	Water				300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price									
207 & AA-2 & VS-15		Braganza, C								

Active	10/11/24 07:10	10/31/2024	10/28/2024	Water		10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 07:10
	280-197843-2	Water				300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price									
207 & AA-2 & VS-15		Braganza, C								

Active	10/11/24 07:35	10/31/2024	10/28/2024	Water		10/10/24 11:40	280-J197835-1	No	197835	10/09/24 07:35
	280-197835-3	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes									
202		Gardner, M								

Active	10/11/24 07:50	10/31/2024	10/28/2024	Water		10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 07:50
	280-197843-3	Water				300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price									
207 & AA-2 & VS-15		Braganza, C								

Active	10/11/24 08:05	10/31/2024	10/28/2024	Water		10/10/24 11:40	280-J197835-1	No	197835	10/09/24 08:05
	280-197835-5	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes									
202		Gardner, M								

Active	10/11/24 08:05	10/31/2024	10/28/2024	Water		10/10/24 11:40	280-J197835-1	No	197835	10/09/24 08:05
	280-197835-5MS	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes									
202		Gardner, M								

Status Report

W/C Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Batch	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	ASub List	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	PM	A-Method	
A-Status	Refrigerator	Prep Chain	Client	Client ID	Project	Result History					
Dilution History	PM										
202	Active	10/11/24 08:05	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 08:05		
		280-197835-5MS Water		Water	9056A_48H_DOD5	Ready	No	9056A_48H_DOD5			
		(MOD) Copy Analytes						MOG			
202	Active	10/11/24 08:25	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 08:25		
		280-197835-1 Water		Water	9056A_48H_DOD5	Ready	No	9056A_48H_DOD5			
		(MOD) Copy Analytes						MOG			
202	Active	10/11/24 08:35	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 08:35		
		280-197835-2 Water		Water	9056A_48H_DOD5	Ready	No	9056A_48H_DOD5			
		(MOD) Copy Analytes						MOG			
202	Active	10/11/24 08:40	10/31/2024	10/28/2024	10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 08:40		
		280-197843-1 Water		Water	300_48HR	Ready	No	300_48HR			
		(MOD) Pick a Reference Price						OJB			
207 & AA-2 & VS-15	Active	10/11/24 08:45	10/31/2024	10/28/2024	10/10/24 09:20	280-J197815-1	Yes	197815	10/09/24 08:45		
		280-197815-1 Water		Water	300_48HR	Ready	No	300_48HR			
		300 O, Nitrate						JSC			
202 & AA-2 & Mtlis-Strge	Active	10/11/24 09:30	10/24/2024	10/22/2024	10/10/24 08:30	280-J197805-1	No	197805	10/09/24 09:30		
		280-197805-1 Water		Water	300_48HR	Ready	No	300_48HR			
		Nitrate, Nitrite by IC						MOG			
36 & Mtlis-Strge & VS-15 & VS-5 & WC Dpt	Active	10/11/24 09:30	10/24/2024	10/22/2024	10/10/24 08:30	280-J197805-1	No	197805	10/09/24 09:30		
		280-197805-1 Water		Water	300_48HR	Ready	No	300_48HR			
		Nitrate, Nitrite by IC						MOG			
1,1,1,1,1,1,1	Active	10/11/24 09:30	10/24/2024	10/22/2024	10/10/24 08:30	280-J197805-1	No	197805	10/09/24 09:30		
		280-197805-1 Water		Water	300_48HR	Ready	No	300_48HR			
		Nitrate, Nitrite by IC						MOG			
1,1,1,1,1,1,1	Active	10/11/24 09:30	10/24/2024	10/22/2024	10/10/24 08:30	280-J197805-1	No	197805	10/09/24 09:30		
		280-197805-1 Water		Water	300_48HR	Ready	No	300_48HR			
		Nitrate, Nitrite by IC						MOG			

10/10/2024 6:04:07PM

Status Report

WC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Le	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	PM	A-Method	
A-Status	ASub List	Prep Chain	Client	Client ID	Project	Result History				
Refrigerator										
Dilution History										

Active	10/11/24 09:30	10/31/2024	10/28/2024	10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 09:30
	280-197843-4	Water	Water	300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price						CJB	

207 & AA-2 & VS-15								
	10/11/24 09:40	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 09:40
	280-197830-1	Water	Water	300_48HR	Ready	No	300_48HR	
	Nitrate as N						SRM	

207 & MIs-Strge								
	10/11/24 09:55	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 09:55
	280-197830-2	Water	Water	300_48HR	Ready	No	300_48HR	
	Nitrate as N						SRM	

207 & MIs-Strge								
	10/11/24 09:55	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 09:55
	280-197830-2	Water	Water	300_48HR	Ready	No	300_48HR	
	Nitrate as N						SRM	

206 & 59 & AA-2 & Seattle & VS-15								
	10/11/24 10:09	10/24/2024	10/22/2024	10/10/24 09:20	280-J197817-1	No	197817	10/09/24 10:09
	280-197817-1	Water	Water	300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price						NBS	

202								
	10/11/24 10:10	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 10:10
	280-197835-4	Water	Water	9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analyses						MOG	

207 & MIs-Strge								
	10/11/24 10:15	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 10:15
	280-197830-3	Water	Water	300_48HR	Ready	No	300_48HR	
	Nitrate as N						SRM	

WC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worksheet #	Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method		
A-Status	ASub List	Prep Chain	Client	Client ID	Project	Result History				
Refrigerator		PM								
Dilution History										
202	Active	10/11/24 10:15	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 10:15	
		280-197835-6	Water	Water	9056A_48H_DOD5	Ready	No	9056A_48H_DOD5		
		(MOD) Copy Analyses						MOG		
		1X	Gardner, M							
207 & AA-2 & VS-15	Active	10/11/24 10:15	10/31/2024	10/28/2024	10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 10:15	
		280-197843-6	Water	Water	300_48HR	Ready	No	300_48HR		
		(MOD) Pick a Reference Price						OJB		
		1X	Braganza, C							
207 & AA-2 & VS-15	Active	10/11/24 10:45	10/31/2024	10/28/2024	10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 10:45	
		280-197843-8	Water	Water	300_48HR	Ready	No	300_48HR		
		(MOD) Pick a Reference Price						OJB		
		1X	Braganza, C							
207 & Mils-Stige	Active	10/11/24 10:47	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 10:47	
		280-197830-4	Water	Water	300_48HR	Ready	No	300_48HR		
		Nitrate as N						SRM		
		1X	McCabe, S							
207 & Mils-Stige	Active	10/11/24 10:47	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 10:47	
		280-197830-4MS	Water	Water	300_48HR	Ready	No	300_48HR		
		Nitrate as N						SRM		
		1X	McCabe, S							
207 & Mils-Stige	Active	10/11/24 10:47	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 10:47	
		280-197830-4MS	Water	Water	300_48HR	Ready	No	300_48HR		
		Nitrate as N						SRM		
		1X	McCabe, S							
207 & Mils-Stige	Active	10/11/24 10:47	10/31/2024	10/28/2024	10/10/24 09:20	280-J197830-1	No	197830	10/09/24 10:47	
		280-197830-4MS	Water	Water	300_48HR	Ready	No	300_48HR		
		Nitrate as N						SRM		
		1X	McCabe, S							

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Status Report

Page 6 of 9

WC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	Sample Matrix	Container Matrix	Client	Login Sample Type	Method	Status	Batch	A-Method	
A-Status	ASub List	Prep Chain	Client ID	Project	Result History					
Refrigerator		PM								
Dilution History										

Active	10/11/24 10:49	10/31/2024	10/28/2024			10/10/24 09:20	280-J197820-1	No	197820	10/09/24 10:49
	280-197820-1	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes								NCR	

206 & AA-2 & Mils-Strge & VS-15										
Active	10/11/24 10:49	10/31/2024	10/28/2024			10/10/24 09:20	280-J197820-1	No	197820	10/09/24 10:49
	280-197820-1MS	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes								NCR	

206 & AA-2 & Mils-Strge & VS-15										
Active	10/11/24 10:49	10/31/2024	10/28/2024			10/10/24 09:20	280-J197820-1	No	197820	10/09/24 10:49
	280-197820-1MS	Water				9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analytes								NCR	

207 & Mils-Strge										
Active	10/11/24 11:01	10/31/2024	10/28/2024			10/10/24 09:20	280-J197830-1	No	197830	10/09/24 11:01
	280-197830-5	Water				300_48HR	Ready	No	300_48HR	
	Nitrate as N								SRM	

207 & Mils-Strge										
Active	10/11/24 11:15	10/31/2024	10/28/2024			10/10/24 09:20	280-J197830-1	No	197830	10/09/24 11:15
	280-197830-6	Water				300_48HR	Ready	No	300_48HR	
	Nitrate as N								SRM	

207 & AA-2 & VS-15										
Active	10/11/24 11:25	10/31/2024	10/28/2024			10/10/24 09:20	280-J197843-1	Yes	197843	10/09/24 11:25
	280-197843-5	Water				300_48HR	Ready	No	300_48HR	
	(MOD) Pick a Reference Price								OJB	

Page 630 of 663

10/10/2024 6:04:07PM

Status Report

W/C Antons @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Lab	Assigned to	Received	Job Number	Rush	Login	Date Sampled
Chrom Worksheet #	Lab Sample ID	ASub List	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status	Refrigerator	Dilution History	Prep Chain	Client	Client ID	Project	Result History			
Active	10/11/24 13:00	10/31/2024	10/28/2024	10/10/24 09:20	280-J197833-1	Yes	197833	10/09/24 13:00		
	280-197833-1	Water	Water	300_48HR	Ready	No	JSC	300_48HR		
	300.0, Nitrate									
205 & AA-2 & Eaton & Mtls-Strge										
5.20										
Active	10/11/24 13:20	10/31/2024	10/28/2024	10/10/24 11:40	280-J197835-1	No	197835	10/09/24 13:20		
	280-197835-8	Water	Water	9056A_48H_DOD5	Ready	No	MOG	9056A_48H_DOD5		
	(MOD) Copy Analytes									
202										
Active	10/11/24 14:12	10/31/2024	10/28/2024	10/10/24 09:20	280-J197820-1	No	197820	10/09/24 14:12		
	280-197820-6	Water	Water	9056A_48H_DOD5	Ready	No	NCR	9056A_48H_DOD5		
	(MOD) Copy Analytes									
206 & AA-2 & Mtls-Strge & VS-15										
Active	10/11/24 14:13	10/24/2024	10/22/2024	10/10/24 09:20	280-J197817-1	No	197817	10/09/24 14:13		
	280-197817-4	Water	Water	300_48HR	Ready	No	NBS	300_48HR		
	(MOD) Pick a Reference Price									
206 & 59 & AA-2 & Seattle & VS-15										
Active	10/11/24 14:33	10/24/2024	10/22/2024	10/10/24 09:20	280-J197817-1	No	197817	10/09/24 14:33		
	280-197817-5	Water	Water	300_48HR	Ready	No	NBS	300_48HR		
	(MOD) Pick a Reference Price									
206 & 59 & AA-2 & Seattle & VS-15										
Active	10/11/24 14:48	10/31/2024	10/28/2024	10/10/24 09:20	280-J197815-1	Yes	197815	10/09/24 14:48		
	280-197815-3	Water	Water	300_48HR	Ready	No	JSC	300_48HR		
	300.0, Nitrate									
202 & AA-2 & Mtls-Strge										

WC Anions @ 10/10/2024 6:04:06 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #	Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	PM	A-Method	
A-Status	ASub List	Prep Chain	Client	Client ID	Project	Result History				
Refrigerator		PM								
Dilution History										

Active	10/11/24 14:51	10/31/2024	10/28/2024		10/10/24 09:20	280-J197820-1	No	197820	10/09/24 14:51
	280-197820-7	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analyses							NCR	
206 & AA-2 & Mils-Strge & VS-15		Ryan, N							

Active	10/11/24 15:16	10/31/2024	10/28/2024		10/10/24 09:20	280-J197820-1	No	197820	10/09/24 15:16
	280-197820-8	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
	(MOD) Copy Analyses							NCR	
206 & AA-2 & Mils-Strge & VS-15		Ryan, N							

200
189

189

189

189

189

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\ICV_09_CD_1_Total.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 10-Oct-2024 17:34:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 280-0138461-007
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC7*sub4
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:34:03 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 10-Oct-2024 18:11:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.315	2.315	0.000	44795579	NC	NC	
2 Chloride	3.187	3.187	0.000	616441646	NC	NC	
3 Nitrite as N	3.803	3.803	0.000	69198652	4.00	4.14	
4 Bromide	5.075	5.075	0.000	9642569	NC	NC	
6 Sulfate	5.448	5.448	0.000	438837332	NC	NC	
5 Nitrate as N	5.932	5.932	0.000	75173762	4.00	3.96	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC ICV 5_00447	Amount Added: 0.80	Units: mL
Cl cal Std_00042	Amount Added: 0.80	Units: mL
IC SO4 cal_00013	Amount Added: 0.80	Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\ICV_09_CD_1_Total.d

Injection Date: 10-Oct-2024 17:34:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: ICV

Worklist Smp#: 7

Client ID:

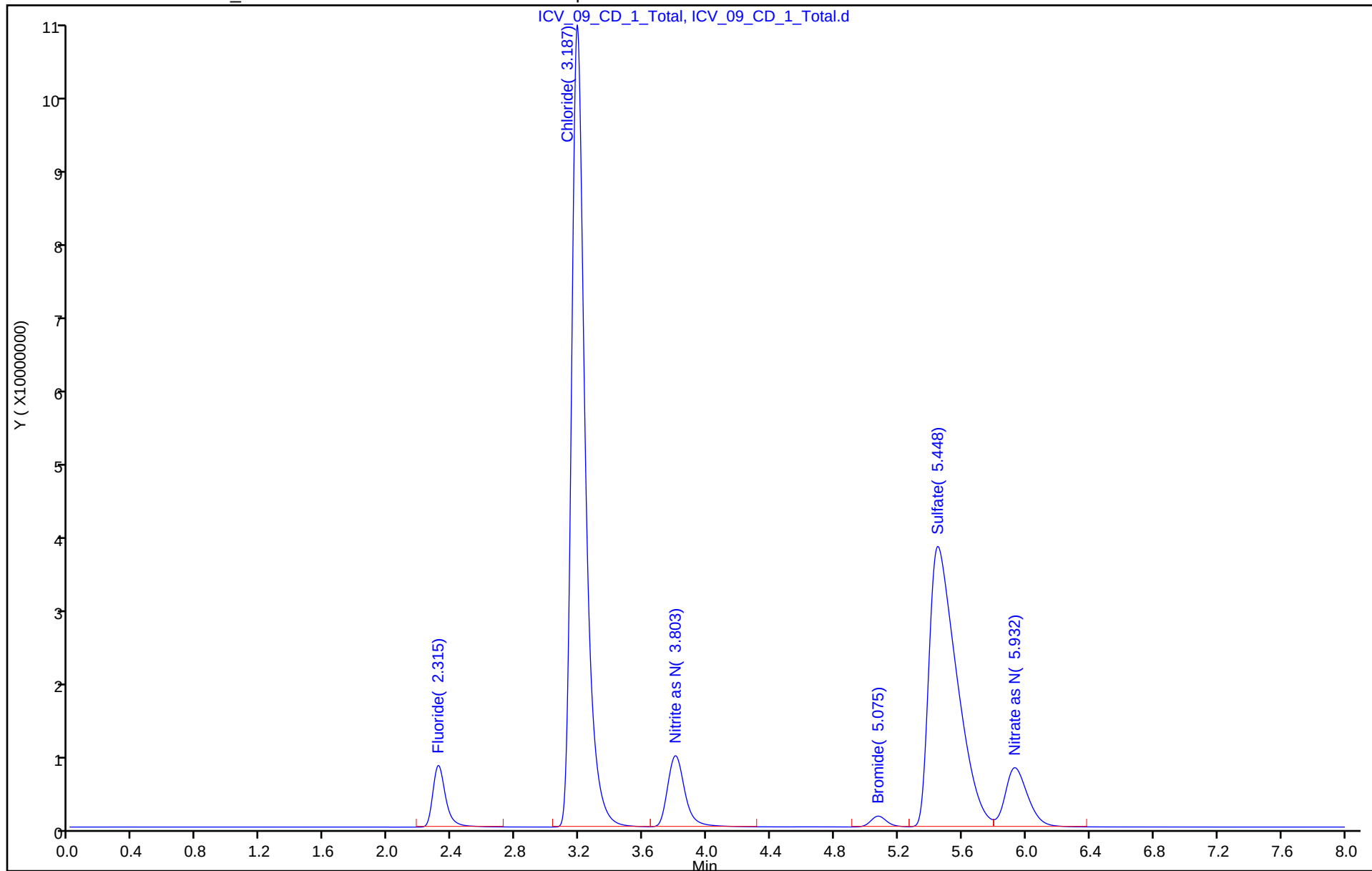
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\ICB_10_CD_1_Total.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 10-Oct-2024 17:45:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: 280-0138461-008
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:34:03 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

First Level Reviewer: XAY4

Date: 11-Oct-2024 17:32:46

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.315				ND	
2 Chloride		3.187				ND	
7 Orthophosphate as P		3.683				ND	
3 Nitrite as N		3.803				ND	
4 Bromide		5.075				ND	
6 Sulfate	5.603	5.448	0.155	514642		NC	a
5 Nitrate as N		5.932				ND	a

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\ICB_10_CD_1_Total.d

Injection Date: 10-Oct-2024 17:45:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: ICB

Worklist Smp#: 8

Client ID:

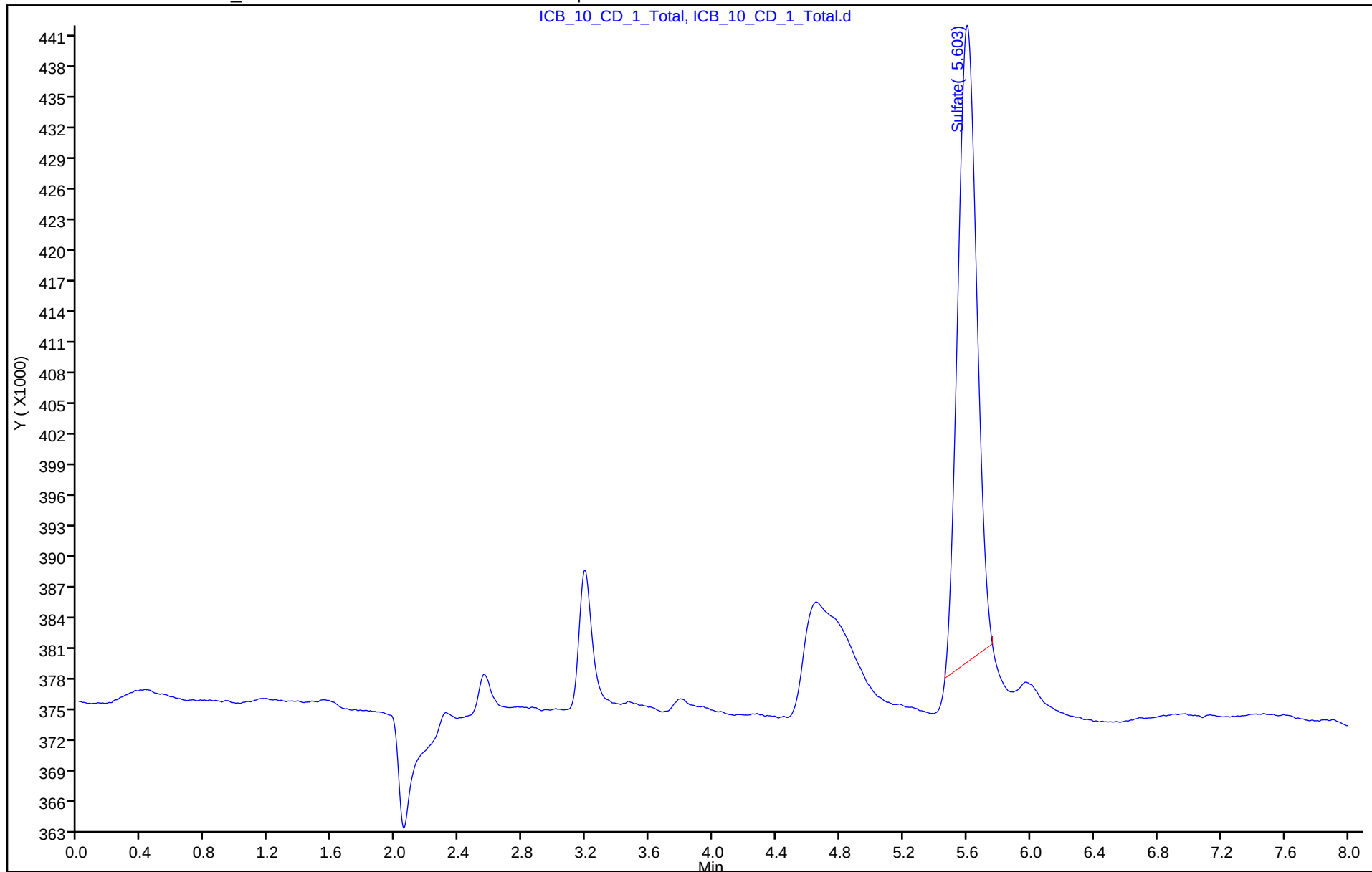
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\MRL_12_CD_1_Total.d
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 10-Oct-2024 18:07:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: MRL
Misc. Info.: 280-0138461-010
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:34:05 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.308	2.332	-0.024	4939449	NC	NC	
2 Chloride	3.192	3.198	-0.006	36894441	NC	NC	
3 Nitrite as N	3.795	3.818	-0.023	7324145	0.5000	0.4978	
4 Bromide	5.092	5.083	0.009	1031706	NC	NC	
6 Sulfate	5.588	5.438	0.150	25613078	NC	NC	
5 Nitrate as N	5.972	5.935	0.037	7787540	0.5000	0.4930	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC Cal low_00812 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00563 Amount Added: 0.20 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\MRL_12_CD_1_Total.d

Injection Date: 10-Oct-2024 18:07:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: mrl

Worklist Smp#: 10

Client ID:

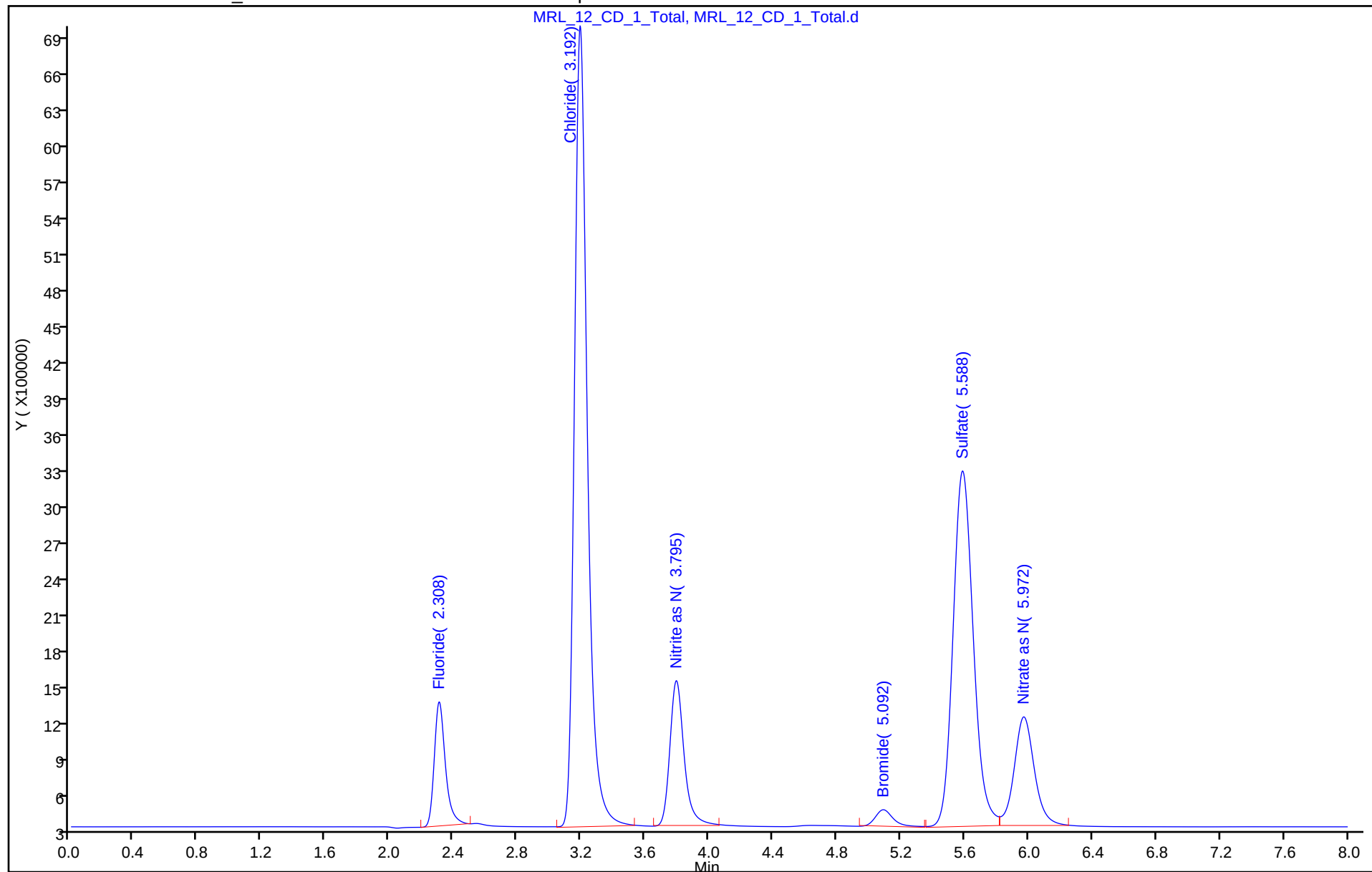
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\LCS_13_CD_1_Total.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 10-Oct-2024 18:18:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 280-0138461-011
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:34:05 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.332	2.332	0.000	59143145	NC	NC	
2 Chloride	3.200	3.198	0.002	743940499	NC	NC	
3 Nitrite as N	3.818	3.818	0.000	84559031	5.00	5.04	
4 Bromide	5.083	5.083	0.000	13355112	NC	NC	
6 Sulfate	5.438	5.438	0.000	546144672	NC	NC	
5 Nitrate as N	5.935	5.935	0.000	95774889	5.00	5.02	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC LCS_02126

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\LCS_13_CD_1_Total.d

Injection Date: 10-Oct-2024 18:18:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: LCS

Worklist Smp#: 11

Client ID:

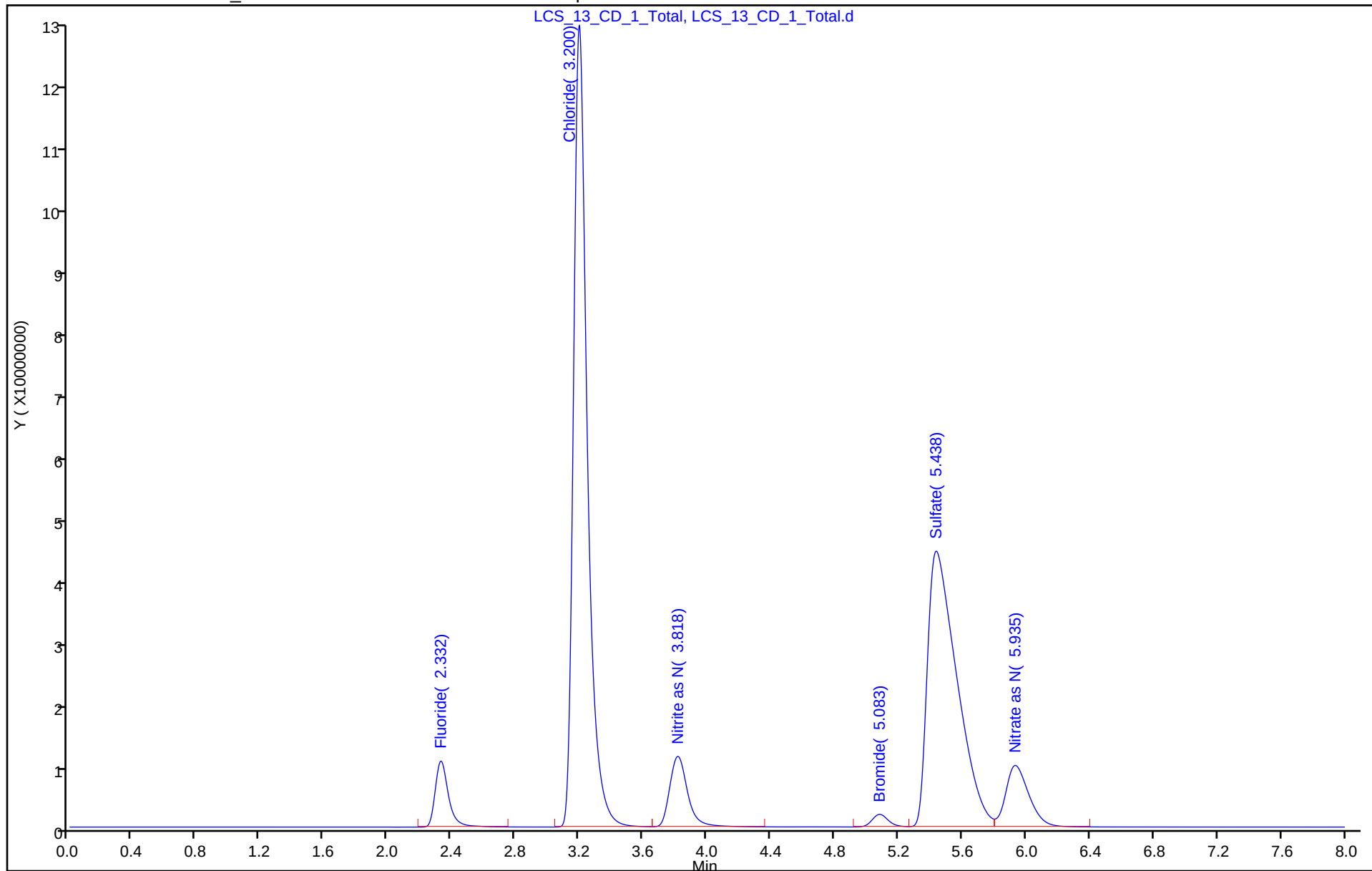
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\LCSD_14_CD_1_Total.d
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 10-Oct-2024 18:29:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 280-0138461-012
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 12-Oct-2024 16:04:00 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1627

First Level Reviewer: XAY4

Date: 12-Oct-2024 16:28:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.337	2.332	0.005	57285476	NC	NC	
2 Chloride	3.205	3.198	0.007	743079401	NC	NC	
3 Nitrite as N	3.823	3.818	0.005	84217455	5.00	5.02	
4 Bromide	5.088	5.083	0.005	13340044	NC	NC	
6 Sulfate	5.445	5.438	0.007	543681813	NC	NC	
5 Nitrate as N	5.940	5.935	0.005	95584041	5.00	5.01	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC LCS_02126

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\LCSD_14_CD_1_Total.d

Injection Date: 10-Oct-2024 18:29:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: lcsd

Worklist Smp#: 12

Client ID:

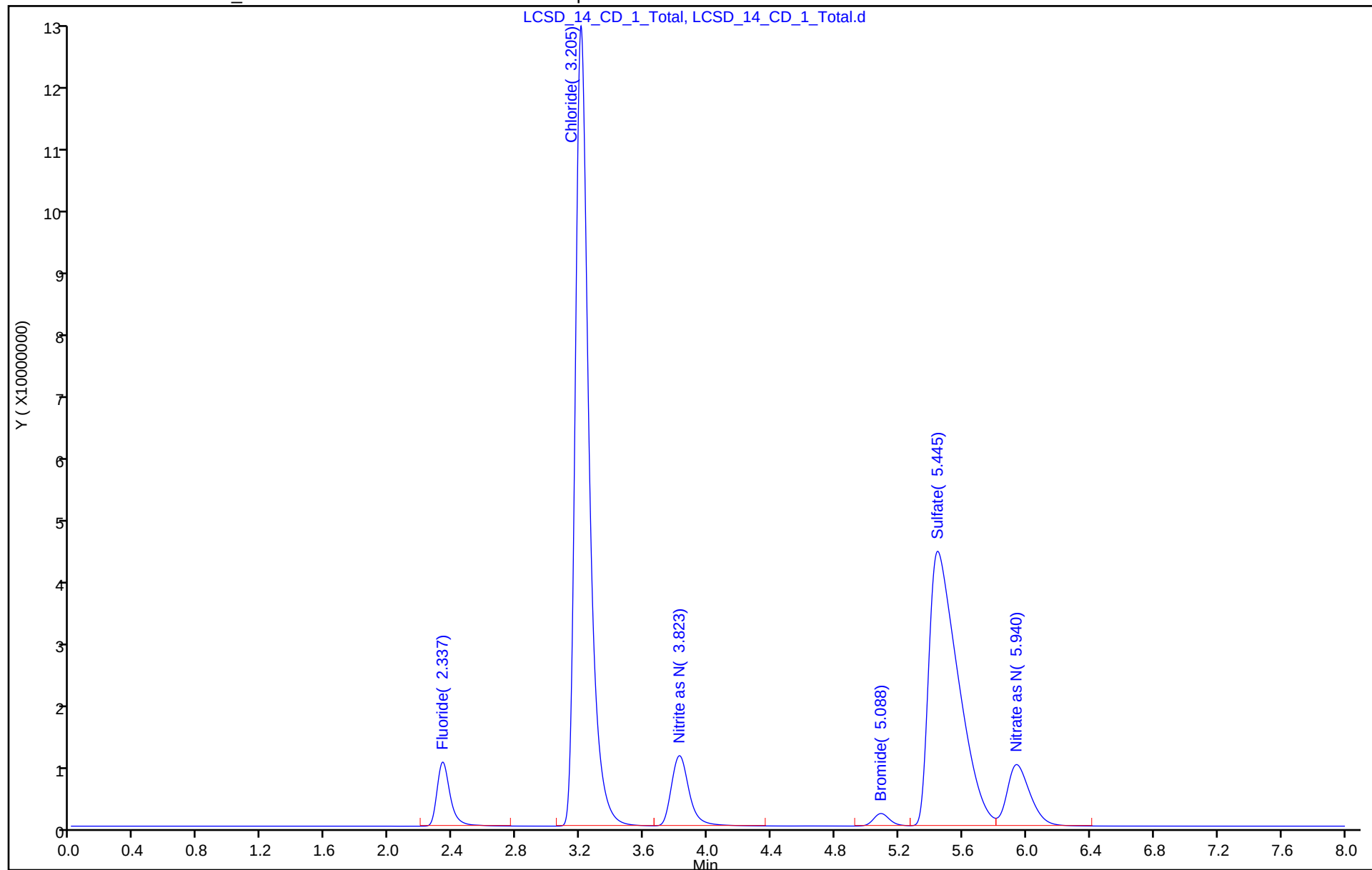
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\MB_15_CD_1_Total.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 10-Oct-2024 18:40:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 280-0138461-013
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 11-Oct-2024 17:34:05 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1694

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.332				ND	
2 Chloride		3.198				ND	
7 Orthophosphate as P		3.683				ND	
3 Nitrite as N		3.818				ND	
4 Bromide		5.083				ND	
6 Sulfate		5.438				ND	
5 Nitrate as N		5.935				ND	

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\MB_15_CD_1_Total.d

Injection Date: 10-Oct-2024 18:40:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: mb

Worklist Smp#: 13

Client ID:

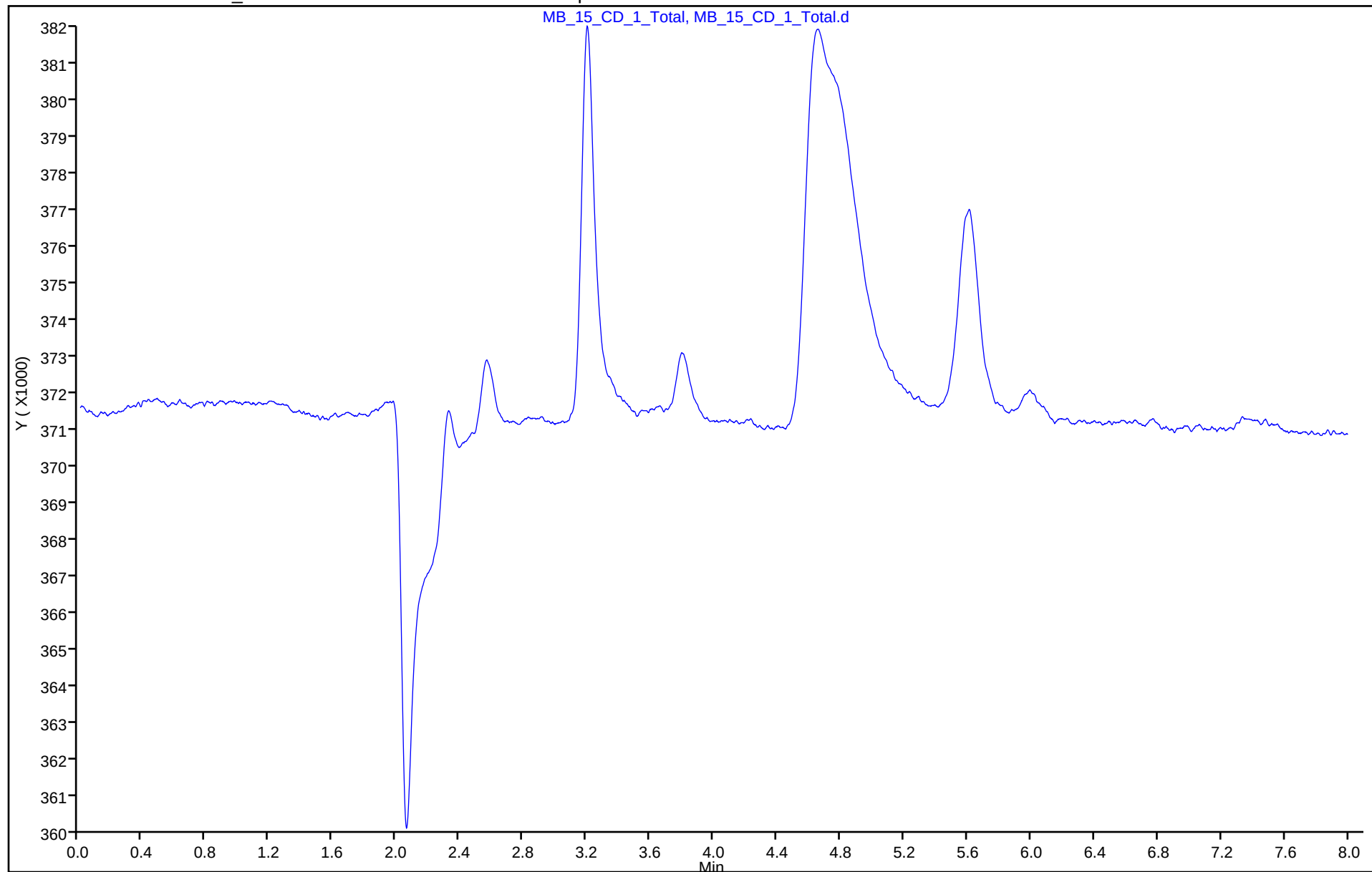
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\280-197842-B-1_16_CD_1_Total.d
Lims ID: 280-197842-B-1
Client ID: LL12mw-249-240901-GW
Sample Type: Client
Inject. Date: 10-Oct-2024 19:38:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-197842-B-1
Misc. Info.: 280-0138461-014
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 12-Oct-2024 16:04:00 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1627

First Level Reviewer: XAY4

Date: 11-Oct-2024 17:33:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.318	2.332	-0.014	2359500	NC	
2 Chloride	3.202	3.198	0.004	56036537	NC	
7 Orthophosphate as P		3.683			ND	
3 Nitrite as N		3.818			ND	
4 Bromide		5.083			ND	
6 Sulfate	5.457	5.438	0.019	415153862	NC	
5 Nitrate as N		5.935			ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\280-197842-B-1_16_CD_1_Total.d

Injection Date: 10-Oct-2024 19:38:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: 280-197842-B-1

Lab Sample ID: 280-197842-1

Worklist Smp#: 14

Client ID: LL12mw-249-240901-GW

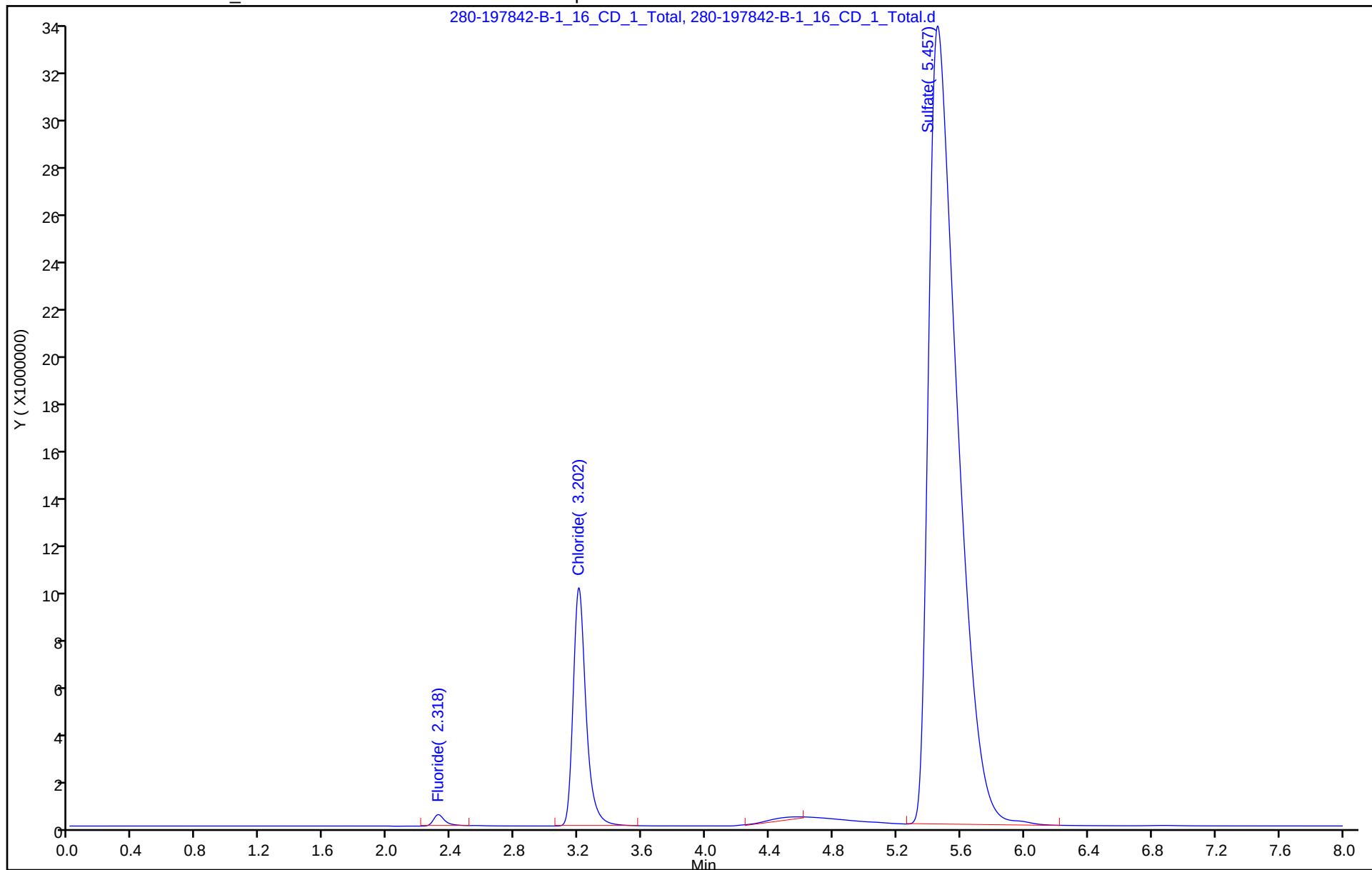
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\CCV_29_CD_1_Total.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Oct-2024 22:02:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0138461-027
Operator ID: Instrument ID: WC_IonChrom17
Sublist: chrom-Anions_IC17*sub6
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 12-Oct-2024 16:04:51 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1627

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.332	2.332	0.000	64780323	NC	NC	
2 Chloride	3.197	3.198	-0.001	742940720	NC	NC	
3 Nitrite as N	3.813	3.818	-0.005	84922179	5.00	5.06	
4 Bromide	5.078	5.083	-0.005	13279729	NC	NC	
6 Sulfate	5.432	5.438	-0.006	535456510	NC	NC	
5 Nitrate as N	5.927	5.935	-0.008	105043394	5.00	5.50	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC LCS_02126

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\CCV_29_CD_1_Total.d

Injection Date: 10-Oct-2024 22:02:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: ccv

Worklist Smp#: 27

Client ID:

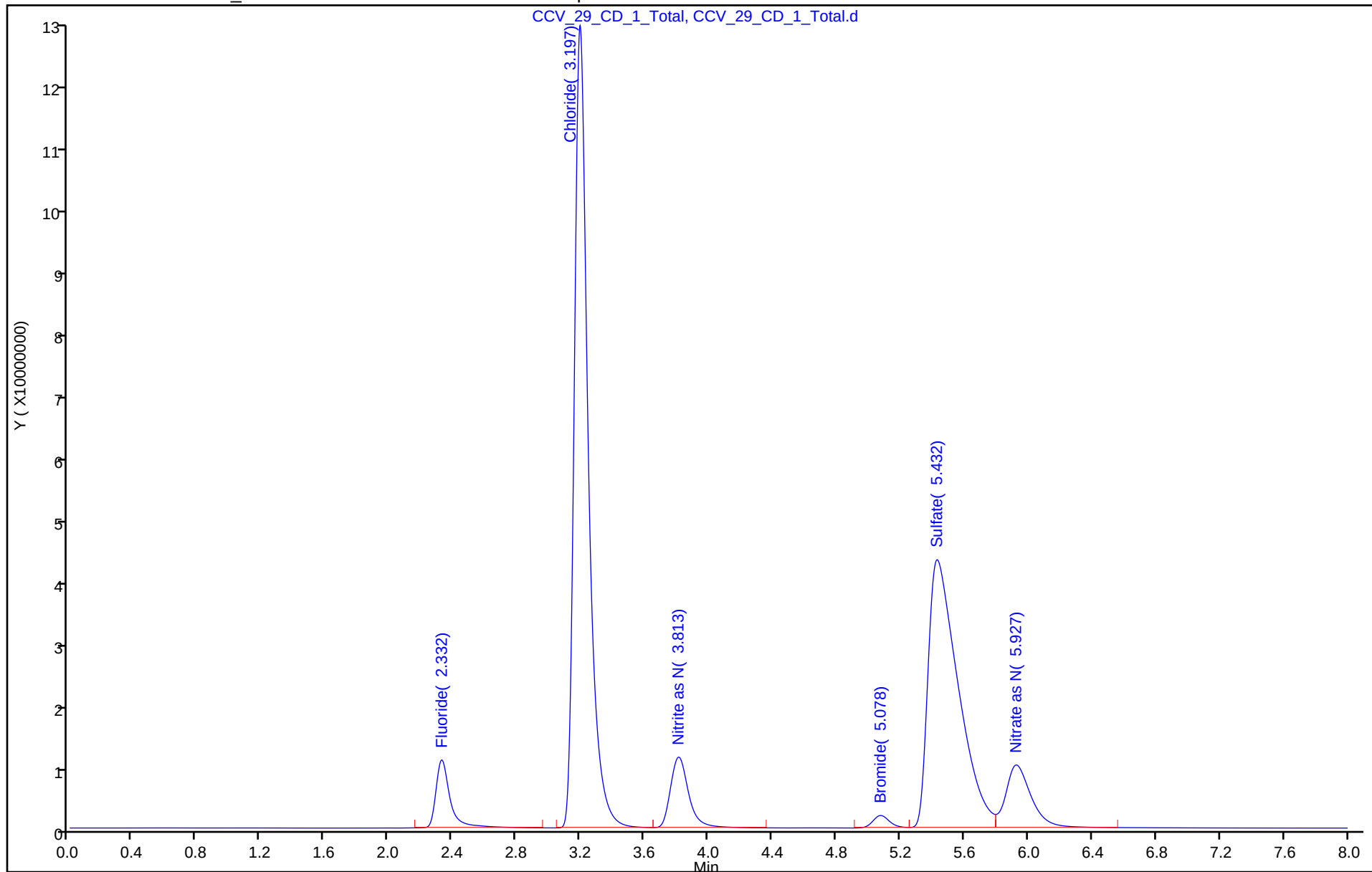
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\CCB_30_CD_1_Total.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 10-Oct-2024 22:13:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCB
Misc. Info.: 280-0138461-028
Operator ID: Instrument ID: WC_IonChrom17
Method: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\Anions_IC17.m
Limit Group: Wet - Anions
Last Update: 12-Oct-2024 16:04:51 Calib Date: 10-Oct-2024 17:23:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\STD L6_08_CD_1_Total.d
Column 1 : Det: 0005
Process Host: CTX1627

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.332				ND	
2 Chloride		3.198				ND	
7 Orthophosphate as P		3.683				ND	
3 Nitrite as N		3.818				ND	
4 Bromide		5.083				ND	
6 Sulfate	5.588	5.438	0.150	416071		NC	
5 Nitrate as N		5.935				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 12-Oct-2024 16:04:52

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom17\20241010-138461.b\CCB_30_CD_1_Total.d

Injection Date: 10-Oct-2024 22:13:00

Instrument ID: WC_IonChrom17

Operator ID:

Lims ID: ccb

Worklist Smp#: 28

Client ID:

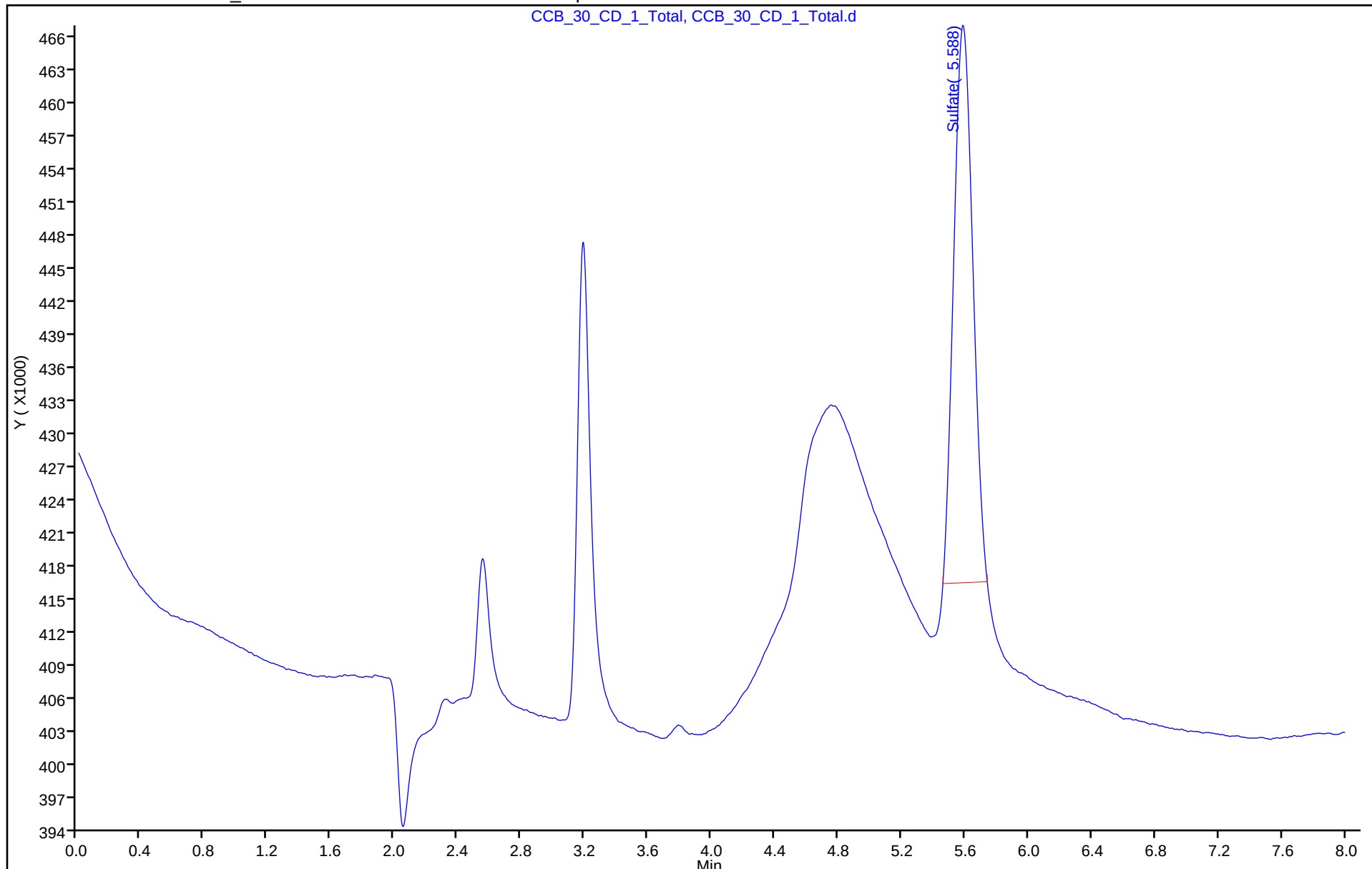
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

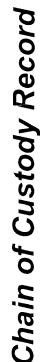
ALS Bottle#: 0

Method: Anions_IC17

Limit Group: Wet - Anions



Shipping and Receiving Documents

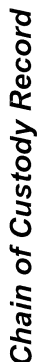


Page 1 of 1

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Leidos	White Laboratory	Pink Project Manager	Yellow Project QAO	Goldenrod Field Project Manager
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0.5, 1.7 Br-Tu F 0.1



COC No.: RVAAP-451-TA

Date: 10/09/24

Page 2 of 10

Name Leidos Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087 Phone Number: (330) 405-5802 Project Manager: Jed Thomas Project: RVAAP FWGW Sampling Event Fall 2023 Job/P.O. No.: P010216426 Sampler (Signature) <i>Melissa Cingol</i> (Printed Name) Laboratory No. <i>Melissa Cingol</i> Sample ID WBGmw-006-240901-GW Site Type -- Depth -- Date 10/14/24 Time 0929 Matrix W										Laboratory Name: TA- Denver Address: 4955 Yarrow Street Arvada, CO 80002 Phone: 303-736-0107 Contact: Patrick McEntee OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS									
Requested Parameters										Total Number of Containers									
Explosives (6)(A)										Alkalinity (14)(A)									
Sulfide (9)(F)										Nitrate/Nitrite/Sulfate (10)(A)									
TOC (13)(E)										Temperature Blank									
2										2									
Notes:										Notes:									
1. SW 8260B										1. SW 8260B									
2. SW 8270D										2. SW 8270D									
3. SW 8270D SIM										3. SW 8270D SIM									
4. SW 8082A										4. SW 8082A									
5. SW 8081B										5. SW 8081B									
6. SW 8330										6. SW 8330									
7. SW 6010/6020/7470										7. SW 6010/6020/7470									
8. SW 9012B										8. SW 9012B									
9. SW 9034										9. SW 9034									
10. SW 9056/9056A										10. SW 9056/9056A									
11. SW 350.1										11. SW 350.1									
12. EPA 353.2										12. EPA 353.2									
13. SW 9060A										13. SW 9060A									
14. SM2320B										14. SM2320B									
Date 10/14/24										Date 10/14/24									
Time 9:29										Time 9:29									
Signature <i>Charles Spurr</i>										Signature <i>Jared Swegle</i>									
Printed Name Charles Spurr										Printed Name Jared Swegle									
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Signature <i>Charles Spurr</i>										Signature <i>Jared Swegle</i>									
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Signature																			

Leidos



Chain of Custody Record

Date: 10/9/24

Page 3 of 10

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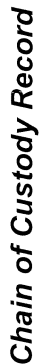
Leidos

White Laboratory

Pink Project Manager

Yellow: Project QAO

Goldenrod Field Project Manager

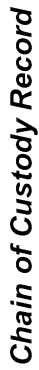


COC No.: RVAAP-451-TA

Date: 10/9/24

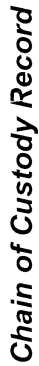
Page 4 of 10

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Page 5 of 10

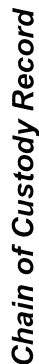
Goldenrod Field Project Manager



Page of 10

Date: 10/19/2011

Goldenrod Field Project Manager



Chain of Custody Record

10/9/24

Page 7 of 10

Goldenrod Field Project Manager

Yellow Project QAO

Pink Project Manager

White Laboratory

— 100 —

Leidos

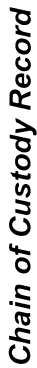


Chain of Custody Record

COC No.: **RVAAP-457-TA**
Date: **10/9/24**

Page 8 of 10

Name Leidos Address: 8866 Commons Blvd, Suite 201, Twinsburg, OH 44087 Phone Number: (330) 405-5802 Project Manager: Jed Thomas Project: RVAAP FWGW Sampling Event Fall 2024 Job/P.O. No.: P010216426 Sampler (Signature) <i>Charles Spurr</i> (Printed Name)				Laboratory Name: TA- Denver Address: 4955 Yarrow Street Arvada, CO 80002 Phone: 303-736-0107 Contact: Patrick McEntee																														
Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix																												
	WBGMW-018-240901-GW	-	-	10/9/24	21235	W																												
Requested Parameters <table><tr><td>Explosives (b)(A)</td><td>Sulfide (9)(F)</td><td>Nitrate/Nitrite/Sulfate (10)(A)</td><td>Alkalinity (14)(A)</td><td>TOC (13)(E)</td><td>Temperature Blank</td><td>Total Number of Containers</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td></tr><tr><td colspan="7">OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS Water very turbid</td></tr></table>							Explosives (b)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers							2	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS Water very turbid													
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						2																												
OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS Water very turbid																																		
Relinquished by <table><tr><td>Signature <i>Charles Spurr</i></td><td>Date 10/12/24</td><td>Received by <i>Sarad Singh</i></td><td>Date 10/10/24</td><td colspan="3">Notes: A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C</td></tr><tr><td>Printed Name Charles Spurr</td><td>Time 1800</td><td>Signature <i>Sarad Singh</i></td><td>Time 9:20</td><td colspan="3">Notes: 1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B</td></tr></table>							Signature <i>Charles Spurr</i>	Date 10/12/24	Received by <i>Sarad Singh</i>	Date 10/10/24	Notes: A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C			Printed Name Charles Spurr	Time 1800	Signature <i>Sarad Singh</i>	Time 9:20	Notes: 1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B																
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Relinquished by <table><tr><td>Signature</td><td>Date</td><td>Received by</td><td>Date</td><td colspan="3">Temperature Blank</td></tr><tr><td>Printed Name</td><td>Time</td><td>Signature</td><td>Time</td><td colspan="3">Lab: Leidos</td></tr><tr><td>Company</td><td></td><td>Printed Name</td><td></td><td colspan="3">8866 Commons Drive</td></tr><tr><td></td><td></td><td>Company</td><td></td><td colspan="3">Twinsburg, OH 44087</td></tr></table>							Signature	Date	Received by	Date	Temperature Blank			Printed Name	Time	Signature	Time	Lab: Leidos			Company		Printed Name		8866 Commons Drive					Company		Twinsburg, OH 44087		
Signature	Date	Received by	Date	Temperature Blank																														
Printed Name	Time	Signature	Time	Lab: Leidos																														
Company		Printed Name		8866 Commons Drive																														
		Company		Twinsburg, OH 44087																														
Shipment Method: Courier																																		



Date: 10/9/2021

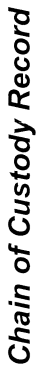
Page 7 of 10

Goldenrod Field Project Manager

Pink Project Manager

White Laboratory

Leidos



10/9/24

Page 10 of 10

[illegible]

Goldenrod Field Project Manager

Yellow Project QAO

Pink Project Manager

White Laboratory

1

1

1

1

Leidos

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-197842-1

Login Number: 197842

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	