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ANALYTICAL REPORT

PREPARED FOR

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Generated 10/11/2023 10:32 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-181950-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

Eurofins Denver

Job Notes

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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 12

Surrogate Summary 13

QC Sample Results 14

QC Association 17

Chronicle 18

Certification Summary 20

Method Summary 21

Sample Summary 22

Manual Integration Summary 23

Reagent Traceability 40

COAs 47

Organic Sample Data 239

HPLC/IC 239

8330B_DOD5 239

8330B_DOD5 QC Summary 240

8330B_DOD5 Sample Data 246

Standards Data 313

8330B_DOD5 ICAL Data 313

8330B_DOD5 CCAL Data 522

Raw QC Data 630

Table of Contents

8330B_DOD5 Blank Data 630
8330B_DOD5 LCS/LCSD Data 636
8330B_DOD5 Run Logs 663
8330B_DOD5 Prep Data 668
Shipping and Receiving Documents 676
Client Chain of Custody 677
Sample Receipt Checklist 684

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

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

CASE NARRATIVE

Client: Leidos, Inc.

Project: RVAAP FWGW

Report Number: 280-181950-1

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

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

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

RECEIPT

The samples were received on 9/26/2023 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.4º C.

EXPLOSIVES (HPLC)

Samples FWGmw-010-230901-GW (280-181950-1), LL1mw-064-230901-GW (280-181950-2), FWGmw-011-230901-GW (280-181950-3), LL1mw-089-230901-GW (280-181950-4), LL1mw-089-230902-GW (280-181950-5), FWGmw-012-230901-GW (280-181950-6) and FWGmw-016-230901-GW (280-181950-7) were analyzed for Explosives (HPLC) in accordance with 8330B. The samples were prepared on 10/02/2023 and analyzed on 10/08/2023 and 10/10/2023.

Surrogate recovery for the following sample in preparation batch 280-628078 and analytical batch 280-628897 was outside the lower control limit: LL1mw-089-230902-GW (280-181950-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The laboratory control sample and laboratory control sample duplicate (LCS/LCSD) for preparation batch 280-628078 and analytical batch 280-628897 recovered outside control limits for the following analytes: 4-Amino-2,6-dinitrotoluene(76-125%R) at 74%R, p-Nitrotoluene(71-127%R) at 70%R, 2,4-diamino-6-nitrotoluene(68-122%R) at 46%R/46%R and 2,6-diamino-4-nitrotoluene(72-122%R) at 56%R/61%R. Surrogate recovered outside the control limit in the method blank: 83-119%R at 79%R. Sample was not re-extracted due to being outside of 2x HT. The following samples are qualified and reported: FWGmw-010-230901-GW (280-181950-1), LL1mw-064-230901-GW (280-181950-2), FWGmw-011-230901-GW (280-181950-3), LL1mw-089-230901-GW (280-181950-4), LL1mw-089-230902-GW (280-181950-5), FWGmw-012-230901-GW (280-181950-6) and FWGmw-016-230901-GW (280-181950-7).

In preparation batch 280-628078, the following samples required filtration to reduce matrix interferences: LL1mw-064-230901-GW (280-181950-2) and LL1mw-089-230902-GW (280-181950-5).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-628078. An LCS/LCSD was prepared instead.

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

Detection Summary

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

Job ID: 280-181950-1

Client Sample ID: FWGmw-010-230901-GW — Lab Sample ID: 280-181950-1

No Detections.

Client Sample ID: LL1mw-064-230901-GW — Lab Sample ID: 280-181950-2

No Detections.

Client Sample ID: FWGmw-011-230901-GW — Lab Sample ID: 280-181950-3

No Detections.

Client Sample ID: LL1mw-089-230901-GW — Lab Sample ID: 280-181950-4

No Detections.

Client Sample ID: LL1mw-089-230902-GW — Lab Sample ID: 280-181950-5

No Detections.

Client Sample ID: FWGmw-012-230901-GW — Lab Sample ID: 280-181950-6

No Detections.

Client Sample ID: FWGmw-016-230901-GW — Lab Sample ID: 280-181950-7

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: FWGmw-010-230901-GW
Date Collected: 09/25/23 11:06
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.087	ug/L		10/08/23 07:26	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/08/23 07:26	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/08/23 07:26	1
2,4-diamino-6-nitrotoluene	0.93	U Q	1.0	0.93	0.45	ug/L		10/08/23 07:26	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		10/08/23 07:26	1
2,6-diamino-4-nitrotoluene	0.93	U M Q	1.0	0.93	0.23	ug/L		10/08/23 07:26	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041	ug/L		10/08/23 07:26	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/08/23 07:26	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/08/23 07:26	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/08/23 07:26	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/08/23 07:26	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.060	ug/L		10/08/23 07:26	1
4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10	ug/L		10/08/23 07:26	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/08/23 07:26	1
HMX	0.21	U	0.22	0.21	0.090	ug/L		10/08/23 07:26	1
MNX	0.30	U	0.52	0.30	0.096	ug/L		10/08/23 07:26	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/08/23 07:26	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/08/23 07:26	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/08/23 07:26	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		10/08/23 07:26	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/08/23 07:26	1
TNX	0.26	U	0.52	0.26	0.082	ug/L		10/08/23 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*	*M*	*83 - 119*	*10/02/23 15:27*	*10/08/23 07:26*	*1*

Client Sample ID: LL1mw-064-230901-GW
Date Collected: 09/25/23 12:16
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.086	ug/L		10/08/23 07:49	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		10/08/23 07:49	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/08/23 07:49	1
2,4-diamino-6-nitrotoluene	0.92	U Q	1.0	0.92	0.45	ug/L		10/08/23 07:49	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/08/23 07:49	1
2,6-diamino-4-nitrotoluene	0.92	U Q	1.0	0.92	0.23	ug/L		10/08/23 07:49	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/08/23 07:49	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/08/23 07:49	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/08/23 07:49	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/08/23 07:49	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/08/23 07:49	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059	ug/L		10/08/23 07:49	1
4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10	ug/L		10/08/23 07:49	1
DNX	0.26	U	0.51	0.26	0.10	ug/L		10/08/23 07:49	1
HMX	0.21	U M	0.22	0.21	0.090	ug/L		10/08/23 07:49	1
MNX	0.30	U	0.51	0.30	0.095	ug/L		10/10/23 09:27	1
Nitrobenzene	0.21	U	0.22	0.21	0.093	ug/L		10/08/23 07:49	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/08/23 07:49	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/08/23 07:49	1
RDX	0.21	U M	0.22	0.21	0.053	ug/L		10/10/23 09:27	1

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

Client Sample ID: LL1mw-064-230901-GW
Date Collected: 09/25/23 12:16
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/08/23 07:49	1
TNX	0.26	U	0.51	0.26	0.081	ug/L		10/08/23 07:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*94*	*M*	*83 - 119*	*10/02/23 15:27*	*10/08/23 07:49*	*1*
1,2-Dinitrobenzene	*88*		*83 - 119*	*10/02/23 15:27*	*10/10/23 09:27*	*1*

Client Sample ID: FWGmw-011-230901-GW
Date Collected: 09/25/23 13:00
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-3
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		10/08/23 08:12	1
1,3-Dinitrobenzene	0.10	U	0.12	0.10	0.039	ug/L		10/08/23 08:12	1
2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047	ug/L		10/08/23 08:12	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		10/08/23 08:12	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		10/08/23 08:12	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053	ug/L		10/08/23 08:12	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		10/08/23 08:12	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		10/08/23 08:12	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.061	ug/L		10/08/23 08:12	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.10	ug/L		10/08/23 08:12	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		10/08/23 08:12	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		10/08/23 08:12	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		10/08/23 08:12	1
PETN	1.0	U	1.2	1.0	0.47	ug/L		10/08/23 08:12	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		10/08/23 08:12	1
Tetryl	0.10	U	0.12	0.10	0.033	ug/L		10/08/23 08:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*88*		*83 - 119*	*10/02/23 15:27*	*10/08/23 08:12*	*1*

Client Sample ID: LL1mw-089-230901-GW
Date Collected: 09/25/23 13:26
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.086	ug/L		10/08/23 09:21	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/08/23 09:21	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/08/23 09:21	1
2,4-diamino-6-nitrotoluene	0.92	U Q	1.0	0.92	0.44	ug/L		10/08/23 09:21	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		10/08/23 09:21	1
2,6-diamino-4-nitrotoluene	0.92	U M Q	1.0	0.92	0.23	ug/L		10/08/23 09:21	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		10/08/23 09:21	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/08/23 09:21	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.087	ug/L		10/08/23 09:21	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13	ug/L		10/08/23 09:21	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/08/23 09:21	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059	ug/L		10/08/23 09:21	1
4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10	ug/L		10/08/23 09:21	1
DNX	0.25	U	0.51	0.25	0.099	ug/L		10/08/23 09:21	1
HMX	0.20	U	0.21	0.20	0.089	ug/L		10/08/23 09:21	1

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

Client Sample ID: LL1mw-089-230901-GW
Date Collected: 09/25/23 13:26
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
MNX	0.30	U	0.51	0.30	0.095	ug/L		10/08/23 09:21	1
Nitrobenzene	0.20	U	0.21	0.20	0.093	ug/L		10/08/23 09:21	1
Nitroglycerin	2.0	U	2.1	2.0	0.94	ug/L		10/08/23 09:21	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/08/23 09:21	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		10/08/23 09:21	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		10/08/23 09:21	1
TNX	0.25	U	0.51	0.25	0.081	ug/L		10/08/23 09:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*92*	*M*	*83 - 119*	*10/02/23 15:27*	*10/08/23 09:21*	*1*

Client Sample ID: LL1mw-089-230902-GW
Date Collected: 09/25/23 13:26
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.085	ug/L		10/08/23 09:44	1
1,3-Dinitrobenzene	0.10	U M Q	0.11	0.10	0.037	ug/L		10/08/23 09:44	1
2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046	ug/L		10/08/23 09:44	1
2,4-diamino-6-nitrotoluene	0.91	U Q	1.0	0.91	0.44	ug/L		10/08/23 09:44	1
2,4-Dinitrotoluene	0.081	U Q	0.10	0.081	0.028	ug/L		10/08/23 09:44	1
2,6-diamino-4-nitrotoluene	0.91	U Q	1.0	0.91	0.22	ug/L		10/08/23 09:44	1
2,6-Dinitrotoluene	0.081	U Q	0.10	0.081	0.041	ug/L		10/08/23 09:44	1
2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.051	ug/L		10/08/23 09:44	1
2-Nitrotoluene	0.20	U Q M	0.21	0.20	0.087	ug/L		10/10/23 10:02	1
3,5-Dinitroaniline	0.30	U Q	0.41	0.30	0.13	ug/L		10/08/23 09:44	1
3-Nitrotoluene	0.36	U Q	0.41	0.36	0.20	ug/L		10/08/23 09:44	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059	ug/L		10/08/23 09:44	1
4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10	ug/L		10/08/23 09:44	1
DNX	0.25	U Q	0.51	0.25	0.099	ug/L		10/08/23 09:44	1
HMX	0.20	U M Q	0.21	0.20	0.089	ug/L		10/08/23 09:44	1
MNX	0.29	U Q	0.51	0.29	0.094	ug/L		10/10/23 10:02	1
Nitrobenzene	0.20	U Q	0.21	0.20	0.092	ug/L		10/10/23 10:02	1
Nitroglycerin	2.0	U Q	2.1	2.0	0.94	ug/L		10/08/23 09:44	1
PETN	1.0	U Q	1.1	1.0	0.45	ug/L		10/08/23 09:44	1
RDX	0.20	U Q M	0.21	0.20	0.052	ug/L		10/10/23 10:02	1
Tetryl	0.10	U Q	0.11	0.10	0.032	ug/L		10/08/23 09:44	1
TNX	0.25	U Q	0.51	0.25	0.080	ug/L		10/08/23 09:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*80*	*M Q*	*83 - 119*	*10/02/23 15:27*	*10/08/23 09:44*	*1*
1,2-Dinitrobenzene	*75*	*Q*	*83 - 119*	*10/02/23 15:27*	*10/10/23 10:02*	*1*

Client Sample ID: FWGmw-012-230901-GW
Date Collected: 09/25/23 14:25
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-6
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		10/08/23 10:06	1
1,3-Dinitrobenzene	0.099	U	0.11	0.099	0.037	ug/L		10/08/23 10:06	1
2,4,6-Trinitrotoluene	0.099	U	0.11	0.099	0.045	ug/L		10/08/23 10:06	1
2,4-Dinitrotoluene	0.080	U	0.099	0.080	0.027	ug/L		10/08/23 10:06	1

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

Client Sample ID: FWGmw-012-230901-GW
Date Collected: 09/25/23 14:25
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-6
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.080	U	0.099	0.080	0.040	ug/L		10/08/23 10:06	1
2-Amino-4,6-dinitrotoluene	0.099	U	0.11	0.099	0.050	ug/L		10/08/23 10:06	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.085	ug/L		10/08/23 10:06	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.19	ug/L		10/08/23 10:06	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.057	ug/L		10/08/23 10:06	1
4-Nitrotoluene	0.40	U M Q	0.41	0.40	0.099	ug/L		10/08/23 10:06	1
HMX	0.20	U M	0.21	0.20	0.087	ug/L		10/08/23 10:06	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		10/08/23 10:06	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		10/08/23 10:06	1
PETN	0.99	U	1.1	0.99	0.44	ug/L		10/08/23 10:06	1
RDX	0.20	U	0.21	0.20	0.051	ug/L		10/08/23 10:06	1
Tetryl	0.099	U	0.11	0.099	0.032	ug/L		10/08/23 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*85*		*83 - 119*	*10/02/23 15:27*	*10/08/23 10:06*	*1*

Client Sample ID: FWGmw-016-230901-GW
Date Collected: 09/25/23 14:58
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089	ug/L		10/08/23 10:29	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		10/08/23 10:29	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.047	ug/L		10/08/23 10:29	1
2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029	ug/L		10/08/23 10:29	1
2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042	ug/L		10/08/23 10:29	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.053	ug/L		10/08/23 10:29	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		10/08/23 10:29	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.21	ug/L		10/08/23 10:29	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.061	ug/L		10/08/23 10:29	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.11	ug/L		10/08/23 10:29	1
HMX	0.21	U M	0.22	0.21	0.092	ug/L		10/08/23 10:29	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		10/08/23 10:29	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		10/08/23 10:29	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		10/08/23 10:29	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		10/08/23 10:29	1
Tetryl	0.11	U	0.12	0.11	0.033	ug/L		10/08/23 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*83*	*M*	*83 - 119*	*10/02/23 15:27*	*10/08/23 10:29*	*1*

Default Detection Limits

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

Job ID: 280-181950-1

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-diamino-6-nitrotoluene	1.0	0.43	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-diamino-4-nitrotoluene	1.0	0.22	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
3,5-Dinitroaniline	0.40	0.13	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
DNX	0.50	0.097	ug/L
HMX	0.21	0.088	ug/L
MNX	0.50	0.093	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
TNX	0.50	0.079	ug/L

Surrogate Summary

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

Job ID: 280-181950-1

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)
280-181950-1	FWGmw-010-230901-GW	98 M
280-181950-2	LL1mw-064-230901-GW	94 M
280-181950-3	FWGmw-011-230901-GW	88
280-181950-4	LL1mw-089-230901-GW	92 M
280-181950-5	LL1mw-089-230902-GW	80 M Q
280-181950-6	FWGmw-012-230901-GW	85
280-181950-7	FWGmw-016-230901-GW	83 M
LCS 280-628078/2-A	Lab Control Sample	99
LCS 280-628078/4-A	Lab Control Sample	89 M
LCSD 280-628078/3-A	Lab Control Sample Dup	87
LCSD 280-628078/5-A	Lab Control Sample Dup	100
MB 280-628078/1-A	Method Blank	79 Q M

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)
280-181950-2	LL1mw-064-230901-GW	88
280-181950-5	LL1mw-089-230902-GW	75 Q

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-628078/1-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628078

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.084	ug/L		10/08/23 00:56	1
1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.037	ug/L		10/08/23 00:56	1
2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.045	ug/L		10/08/23 00:56	1
2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.90	0.43	ug/L		10/08/23 00:56	1
2,4-Dinitrotoluene	0.080	U Q	0.10	0.080	0.027	ug/L		10/08/23 00:56	1
2,6-diamino-4-nitrotoluene	0.90	U	1.0	0.90	0.22	ug/L		10/08/23 00:56	1
2,6-Dinitrotoluene	0.080	U Q	0.10	0.080	0.040	ug/L		10/08/23 00:56	1
2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.051	ug/L		10/08/23 00:56	1
2-Nitrotoluene	0.20	U Q	0.21	0.20	0.086	ug/L		10/08/23 00:56	1
3,5-Dinitroaniline	0.30	U Q	0.40	0.30	0.13	ug/L		10/08/23 00:56	1
3-Nitrotoluene	0.35	U Q	0.40	0.35	0.20	ug/L		10/08/23 00:56	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.058	ug/L		10/08/23 00:56	1
4-Nitrotoluene	0.40	U Q	0.41	0.40	0.10	ug/L		10/08/23 00:56	1
DNX	0.25	U Q	0.50	0.25	0.097	ug/L		10/08/23 00:56	1
HMX	0.20	U Q	0.21	0.20	0.088	ug/L		10/08/23 00:56	1
MNX	0.29	U Q	0.50	0.29	0.093	ug/L		10/08/23 00:56	1
Nitrobenzene	0.20	U Q	0.21	0.20	0.091	ug/L		10/08/23 00:56	1
Nitroglycerin	2.0	U Q	2.1	2.0	0.92	ug/L		10/08/23 00:56	1
PETN	1.0	U Q	1.1	1.0	0.45	ug/L		10/08/23 00:56	1
RDX	0.20	U Q	0.21	0.20	0.052	ug/L		10/08/23 00:56	1
Tetryl	0.10	U Q	0.11	0.10	0.032	ug/L		10/08/23 00:56	1
TNX	0.25	U Q	0.50	0.25	0.079	ug/L		10/08/23 00:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*79*	*Q M*	*83 - 119*	*10/02/23 15:27*	*10/08/23 00:56*	*1*

Lab Sample ID: LCS 280-628078/2-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.25		ug/L		113	73 - 125
1,3-Dinitrobenzene	2.00	2.11		ug/L		106	78 - 120
2,4,6-Trinitrotoluene	2.00	2.02		ug/L		101	71 - 123
2,4-Dinitrotoluene	2.00	2.02		ug/L		101	78 - 120
2,6-Dinitrotoluene	2.00	2.02		ug/L		101	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.97		ug/L		98	79 - 120
2-Nitrotoluene	2.00	1.74		ug/L		87	70 - 127
3,5-Dinitroaniline	2.00	1.86		ug/L		93	71 - 117
3-Nitrotoluene	2.00	1.70		ug/L		85	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.82		ug/L		91	76 - 125
4-Nitrotoluene	2.00	1.62		ug/L		81	71 - 127
DNX	2.01	2.03	M	ug/L		101	66 - 119
HMX	2.00	1.93	M	ug/L		96	65 - 135
MNX	2.34	2.30		ug/L		98	57 - 132
Nitrobenzene	2.00	1.93		ug/L		96	65 - 134
Nitroglycerin	20.0	21.9		ug/L		109	74 - 127
PETN	20.0	22.7		ug/L		114	73 - 127

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

Lab Sample ID: LCS 280-628078/2-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628078

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
RDX			2.00	1.97		ug/L		98	68 - 130		
Tetryl			2.00	2.12		ug/L		106	64 - 128		
TNX			2.00	1.84	M	ug/L		92	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*99*		*83 - 119*

Lab Sample ID: LCS 280-628078/4-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628078

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-diamino-6-nitrotoluene			2.00	0.916	J M Q	ug/L		46	68 - 122		
2,6-diamino-4-nitrotoluene			2.00	1.13	M Q	ug/L		56	72 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*89*	*M*	*83 - 119*

Lab Sample ID: LCSD 280-628078/3-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 628078

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.00	1.99		ug/L		100	73 - 125	12	20
1,3-Dinitrobenzene			2.00	1.88		ug/L		94	78 - 120	12	20
2,4,6-Trinitrotoluene			2.00	1.80		ug/L		90	71 - 123	12	20
2,4-Dinitrotoluene			2.00	1.79		ug/L		89	78 - 120	12	20
2,6-Dinitrotoluene			2.00	1.79		ug/L		89	77 - 127	12	20
2-Amino-4,6-dinitrotoluene			2.00	1.73		ug/L		86	79 - 120	13	20
2-Nitrotoluene			2.00	1.50		ug/L		75	70 - 127	15	20
3,5-Dinitroaniline			2.00	1.62		ug/L		81	71 - 117	14	20
3-Nitrotoluene			2.00	1.53		ug/L		77	73 - 125	10	20
4-Amino-2,6-dinitrotoluene			2.00	1.48	Q	ug/L		74	76 - 125	21	20
4-Nitrotoluene			2.00	1.40	Q	ug/L		70	71 - 127	14	20
DNX			2.01	1.87	M	ug/L		93	66 - 119	8	20
HMX			2.00	1.80	M	ug/L		90	65 - 135	7	20
MNX			2.34	2.19		ug/L		93	57 - 132	5	20
Nitrobenzene			2.00	1.67		ug/L		84	65 - 134	14	20
Nitroglycerin			20.0	19.9		ug/L		99	74 - 127	10	20
PETN			20.0	20.6		ug/L		103	73 - 127	10	20
RDX			2.00	1.82		ug/L		91	68 - 130	8	20
Tetryl			2.00	1.86		ug/L		93	64 - 128	13	20
TNX			2.00	1.65	M	ug/L		83	50 - 150	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*87*		*83 - 119*

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

Lab Sample ID: LCSD 280-628078/5-A
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 628078

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-diamino-6-nitrotoluene			2.00	0.914	J M Q	ug/L		46	68 - 122	0	20
2,6-diamino-4-nitrotoluene			2.00	1.22	M Q	ug/L		61	72 - 122	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*100*		*83 - 119*

HPLC/IC

Prep Batch: 628078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-181950-1	FWGmw-010-230901-GW	Total/NA	Water	3535	
280-181950-2	LL1mw-064-230901-GW	Total/NA	Water	3535	
280-181950-3	FWGmw-011-230901-GW	Total/NA	Water	3535	
280-181950-4	LL1mw-089-230901-GW	Total/NA	Water	3535	
280-181950-5	LL1mw-089-230902-GW	Total/NA	Water	3535	
280-181950-6	FWGmw-012-230901-GW	Total/NA	Water	3535	
280-181950-7	FWGmw-016-230901-GW	Total/NA	Water	3535	
MB 280-628078/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-628078/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-628078/4-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-628078/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
LCSD 280-628078/5-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 628897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-181950-1	FWGmw-010-230901-GW	Total/NA	Water	8330B	628078
280-181950-2	LL1mw-064-230901-GW	Total/NA	Water	8330B	628078
280-181950-3	FWGmw-011-230901-GW	Total/NA	Water	8330B	628078
280-181950-4	LL1mw-089-230901-GW	Total/NA	Water	8330B	628078
280-181950-5	LL1mw-089-230902-GW	Total/NA	Water	8330B	628078
280-181950-6	FWGmw-012-230901-GW	Total/NA	Water	8330B	628078
280-181950-7	FWGmw-016-230901-GW	Total/NA	Water	8330B	628078
MB 280-628078/1-A	Method Blank	Total/NA	Water	8330B	628078
LCS 280-628078/2-A	Lab Control Sample	Total/NA	Water	8330B	628078
LCS 280-628078/4-A	Lab Control Sample	Total/NA	Water	8330B	628078
LCSD 280-628078/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	628078
LCSD 280-628078/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	628078

Analysis Batch: 629022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-181950-2	LL1mw-064-230901-GW	Total/NA	Water	8330B	628078
280-181950-5	LL1mw-089-230902-GW	Total/NA	Water	8330B	628078

Client Sample ID: FWGmw-010-230901-GW
Lab Sample ID: 280-181950-1
Date Collected: 09/25/23 11:06
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			484.6 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 07:26	JPG	EET DEN

Client Sample ID: LL1mw-064-230901-GW
Lab Sample ID: 280-181950-2
Date Collected: 09/25/23 12:16
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 07:49	JPG	EET DEN
Total/NA	Prep	3535			487 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629022	10/10/23 09:27	JPG	EET DEN

Client Sample ID: FWGmw-011-230901-GW
Lab Sample ID: 280-181950-3
Date Collected: 09/25/23 13:00
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			476.3 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 08:12	JPG	EET DEN

Client Sample ID: LL1mw-089-230901-GW
Lab Sample ID: 280-181950-4
Date Collected: 09/25/23 13:26
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			490.9 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 09:21	JPG	EET DEN

Client Sample ID: LL1mw-089-230902-GW
Lab Sample ID: 280-181950-5
Date Collected: 09/25/23 13:26
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			492.3 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 09:44	JPG	EET DEN
Total/NA	Prep	3535			492.3 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629022	10/10/23 10:02	JPG	EET DEN

Client Sample ID: FWGmw-012-230901-GW
Lab Sample ID: 280-181950-6
Date Collected: 09/25/23 14:25
Matrix: Water
Date Received: 09/26/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			502.7 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 10:06	JPG	EET DEN

Lab Chronicle

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

Job ID: 280-181950-1

Client Sample ID: FWGmw-016-230901-GW

Date Collected: 09/25/23 14:58
Date Received: 09/26/23 09:40

Lab Sample ID: 280-181950-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			474.8 mL	5 mL	628078	10/02/23 15:27	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	628897	10/08/23 10:29	JPG	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: 280-181950-1

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	10-31-23

Method Summary

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

Job ID: 280-181950-1

Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	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: 280-181950-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-181950-1	FWGmw-010-230901-GW	Water	09/25/23 11:06	09/26/23 09:40
280-181950-2	LL1mw-064-230901-GW	Water	09/25/23 12:16	09/26/23 09:40
280-181950-3	FWGmw-011-230901-GW	Water	09/25/23 13:00	09/26/23 09:40
280-181950-4	LL1mw-089-230901-GW	Water	09/25/23 13:26	09/26/23 09:40
280-181950-5	LL1mw-089-230902-GW	Water	09/25/23 13:26	09/26/23 09:40
280-181950-6	FWGmw-012-230901-GW	Water	09/25/23 14:25	09/26/23 09:40
280-181950-7	FWGmw-016-230901-GW	Water	09/25/23 14:58	09/26/23 09:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/11 Client Sample ID:

Date Analyzed: 06/23/23 17:53 Lab File ID: 06230011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.46	Baseline	LV5D	06/23/23 18:20
HMX	6.59	Baseline	LV5D	06/23/23 18:20
DNX	6.80	Baseline	LV5D	06/23/23 18:19
MNX	7.22	Baseline	LV5D	06/23/23 18:20

Lab Sample ID: IC 280-617295/12 Client Sample ID:

Date Analyzed: 06/23/23 18:16 Lab File ID: 06230012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 18:54
HMX	6.60	Baseline	LV5D	06/23/23 18:54
DNX	6.80	Baseline	LV5D	06/23/23 18:54

Lab Sample ID: IC 280-617295/13 Client Sample ID:

Date Analyzed: 06/23/23 18:39 Lab File ID: 06230013.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 19:10
HMX	6.59	Baseline	LV5D	06/23/23 19:10
DNX	6.80	Baseline	LV5D	06/23/23 19:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/14 Client Sample ID:

Date Analyzed: 06/23/23 19:02 Lab File ID: 06230014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 19:38
HMX	6.60	Baseline	LV5D	06/23/23 19:38
DNX	6.81	Baseline	LV5D	06/23/23 19:38

Lab Sample ID: IC 280-617295/15 Client Sample ID:

Date Analyzed: 06/23/23 19:25 Lab File ID: 06230015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	06/23/23 20:05
HMX	6.60	Baseline	LV5D	06/23/23 20:05
DNX	6.81	Baseline	LV5D	06/23/23 20:05

Lab Sample ID: IC 280-617295/16 Client Sample ID:

Date Analyzed: 06/23/23 19:48 Lab File ID: 06230016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 20:36
HMX	6.60	Baseline	LV5D	06/23/23 20:36
DNX	6.80	Baseline	LV5D	06/23/23 20:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/17 Client Sample ID:

Date Analyzed: 06/23/23 20:11 Lab File ID: 06230017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 20:36
HMX	6.60	Baseline	LV5D	06/23/23 20:36
DNX	6.80	Baseline	LV5D	06/23/23 20:36
PETN	14.75	Baseline	LV5D	06/23/23 20:36

Lab Sample ID: IC 280-617295/18 Client Sample ID:

Date Analyzed: 06/23/23 20:34 Lab File ID: 06230018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:02
HMX	6.59	Baseline	LV5D	06/23/23 21:02
DNX	6.80	Baseline	LV5D	06/23/23 21:02
PETN	14.72	Baseline	LV5D	06/23/23 21:02

Lab Sample ID: IC 280-617295/19 Client Sample ID:

Date Analyzed: 06/23/23 20:57 Lab File ID: 06230019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:21
HMX	6.60	Baseline	LV5D	06/23/23 21:21
DNX	6.80	Baseline	LV5D	06/23/23 21:21
PETN	14.72	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: ICV 280-617295/20 Client Sample ID:

Date Analyzed: 06/23/23 21:20 Lab File ID: 06230020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:43
HMX	6.60	Baseline	LV5D	06/23/23 21:43
DNX	6.80	Baseline	LV5D	06/23/23 21:43

Lab Sample ID: IC 280-617295/21 Client Sample ID:

Date Analyzed: 06/23/23 21:43 Lab File ID: 06230021.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:41
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:41

Lab Sample ID: IC 280-617295/22 Client Sample ID:

Date Analyzed: 06/23/23 22:06 Lab File ID: 06230022.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:41
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:41

Lab Sample ID: IC 280-617295/23 Client Sample ID:

Date Analyzed: 06/23/23 22:29 Lab File ID: 06230023.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/24 Client Sample ID:

Date Analyzed: 06/23/23 22:52 Lab File ID: 06230024.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/25 Client Sample ID:

Date Analyzed: 06/23/23 23:14 Lab File ID: 06230025.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.48	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/26 Client Sample ID:

Date Analyzed: 06/23/23 23:37 Lab File ID: 06230026.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/27 Client Sample ID:

Date Analyzed: 06/24/23 00:00 Lab File ID: 06230027.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.48	Baseline	LV5D	06/24/23 12:55
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 12:55

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/28 Client Sample ID:

Date Analyzed: 06/24/23 00:23 Lab File ID: 06230028.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:43
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:43

Lab Sample ID: ICV 280-617295/29 Client Sample ID:

Date Analyzed: 06/24/23 00:46 Lab File ID: 06230029.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:43
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 628897

Lab Sample ID: CCV 280-628897/33 Client Sample ID:

Date Analyzed: 10/07/23 23:24 Lab File ID: 10070033.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	10/09/23 11:03
HMX	6.57	Baseline	K8YG	10/09/23 11:03
DNX	6.77	Baseline	K8YG	10/09/23 11:03
MNX	7.20	Baseline	K8YG	10/09/23 11:04

Lab Sample ID: CCV 280-628897/34 Client Sample ID:

Date Analyzed: 10/07/23 23:47 Lab File ID: 10070034.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:04
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/09/23 11:04

Lab Sample ID: MB 280-628078/1-A Client Sample ID:

Date Analyzed: 10/08/23 00:56 Lab File ID: 10070037.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/09/23 11:05
1,3,5-Trinitrobenzene		Baseline	K8YG	10/09/23 11:05

Lab Sample ID: LCS 280-628078/2-A Client Sample ID:

Date Analyzed: 10/08/23 01:19 Lab File ID: 10070038.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	10/09/23 11:05
HMX	6.57	Baseline	K8YG	10/09/23 11:05
DNX	6.77	Baseline	K8YG	10/09/23 11:06

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 628897

Lab Sample ID: LCSD 280-628078/3-A Client Sample ID:

Date Analyzed: 10/08/23 01:42 Lab File ID: 10070039.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	10/09/23 11:06
HMX	6.57	Baseline	K8YG	10/09/23 11:06
DNX	6.77	Baseline	K8YG	10/09/23 11:06

Lab Sample ID: LCS 280-628078/4-A Client Sample ID:

Date Analyzed: 10/08/23 02:05 Lab File ID: 10070040.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:06
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/09/23 11:06
1,2-Dinitrobenzene	8.51	Baseline	K8YG	10/09/23 11:06

Lab Sample ID: LCSD 280-628078/5-A Client Sample ID:

Date Analyzed: 10/08/23 02:27 Lab File ID: 10070041.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:07
2,4-diamino-6-nitrotoluene	6.62	Baseline	K8YG	10/09/23 11:07

Lab Sample ID: CCV 280-628897/45 Client Sample ID:

Date Analyzed: 10/08/23 03:59 Lab File ID: 10070045.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	10/09/23 11:08
HMX	6.57	Baseline	K8YG	10/09/23 11:08
DNX	6.77	Baseline	K8YG	10/09/23 11:08
MNX	7.20	Baseline	K8YG	10/09/23 11:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 628897

Lab Sample ID: CCV 280-628897/46 Client Sample ID:

Date Analyzed: 10/08/23 04:22 Lab File ID: 10070046.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:09
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/09/23 11:09

Lab Sample ID: 280-181950-1 Client Sample ID: FWGmw-010-230901-GW

Date Analyzed: 10/08/23 07:26 Lab File ID: 10070054.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/09/23 11:12
1,3,5-Trinitrobenzene	8.63	Baseline	K8YG	10/09/23 11:12
2,6-diamino-4-nitrotoluene		Invalid Compound ID	K8YG	10/09/23 11:12

Lab Sample ID: 280-181950-2 Client Sample ID: LL1mw-064-230901-GW

Date Analyzed: 10/08/23 07:49 Lab File ID: 10070055.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.21	Baseline	K8YG	10/09/23 11:12
RDX	7.60	Baseline	K8YG	10/09/23 11:13
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/09/23 11:12
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	10/09/23 11:13
HMX		Invalid Compound ID	K8YG	10/09/23 11:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 628897

Lab Sample ID: CCV 280-628897/57 Client Sample ID:

Date Analyzed: 10/08/23 08:35 Lab File ID: 10070057.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.45	Baseline	K8YG	10/09/23 11:13
HMX	6.57	Baseline	K8YG	10/09/23 11:13
DNX	6.77	Baseline	K8YG	10/09/23 11:13

Lab Sample ID: CCV 280-628897/58 Client Sample ID:

Date Analyzed: 10/08/23 08:58 Lab File ID: 10070058.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:14
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/09/23 11:14

Lab Sample ID: 280-181950-4 Client Sample ID: LL1mw-089-230901-GW

Date Analyzed: 10/08/23 09:21 Lab File ID: 10070059.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/09/23 11:14
2,6-diamino-4-nitrotoluene		Invalid Compound ID	K8YG	10/09/23 11:14

Lab Sample ID: 280-181950-5 Client Sample ID: LL1mw-089-230902-GW

Date Analyzed: 10/08/23 09:44 Lab File ID: 10070060.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.21	Baseline	K8YG	10/09/23 11:14
RDX	7.60	Baseline	K8YG	10/09/23 11:14
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/09/23 11:14
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	10/09/23 11:14
HMX		Invalid Compound ID	K8YG	10/09/23 11:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 628897

Lab Sample ID: 280-181950-6 Client Sample ID: FWGmw-012-230901-GW

Date Analyzed: 10/08/23 10:06 Lab File ID: 10070061.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene		Invalid Compound ID	K8YG	10/09/23 11:15
HMX		Invalid Compound ID	K8YG	10/09/23 11:15

Lab Sample ID: 280-181950-7 Client Sample ID: FWGmw-016-230901-GW

Date Analyzed: 10/08/23 10:29 Lab File ID: 10070062.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.51	Baseline	K8YG	10/09/23 11:15
HMX		Invalid Compound ID	K8YG	10/09/23 11:15

Lab Sample ID: CCV 280-628897/63 Client Sample ID:

Date Analyzed: 10/08/23 10:52 Lab File ID: 10070063.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	10/09/23 11:16
HMX	6.57	Baseline	K8YG	10/09/23 11:16
DNX	6.77	Baseline	K8YG	10/09/23 11:16
MNX	7.20	Baseline	K8YG	10/09/23 11:16

Lab Sample ID: CCV 280-628897/64 Client Sample ID:

Date Analyzed: 10/08/23 11:15 Lab File ID: 10070064.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	K8YG	10/09/23 11:16
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/09/23 11:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/10 Client Sample ID:

Date Analyzed: 09/20/23 20:01 Lab File ID: 09200010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.36	Peak assignment corrected	LV5D	09/21/23 11:52
3,5-Dinitroaniline	14.65	Baseline Smoothing	LV5D	09/21/23 11:52
1,3-Dinitrobenzene	14.80	Baseline Smoothing	LV5D	09/21/23 11:52
2-Nitrotoluene	16.01	Baseline Smoothing	LV5D	09/21/23 11:52
4-Nitrotoluene	16.09	Baseline Smoothing	LV5D	09/21/23 11:52
1,3,5-Trinitrobenzene	17.64	Baseline Smoothing	LV5D	09/21/23 11:52
2-Amino-4,6-dinitrotoluene	17.64	Baseline Smoothing	LV5D	09/21/23 11:52

Lab Sample ID: IC 280-626878/11 Client Sample ID:

Date Analyzed: 09/20/23 20:36 Lab File ID: 09200011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.44	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:52
1,3,5-Trinitrobenzene	17.68	Baseline Smoothing	LV5D	09/21/23 11:52
PETN	24.94	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/12 Client Sample ID:

Date Analyzed: 09/20/23 21:11 Lab File ID: 09200012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.48	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/13 Client Sample ID:

Date Analyzed: 09/20/23 21:45 Lab File ID: 09200013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.53	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/14 Client Sample ID:

Date Analyzed: 09/20/23 22:20 Lab File ID: 09200014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.55	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.69	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/15 Client Sample ID:

Date Analyzed: 09/20/23 22:55 Lab File ID: 09200015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.71	Unspecified		
1,3,5-Trinitrobenzene	17.74	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.97	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/16 Client Sample ID:

Date Analyzed: 09/20/23 23:30 Lab File ID: 09200016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.72	Unspecified		
1,3,5-Trinitrobenzene	17.73	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	25.00	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/17 Client Sample ID:

Date Analyzed: 09/21/23 00:05 Lab File ID: 09200017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.71	Unspecified		
1,3,5-Trinitrobenzene	17.73	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	24.99	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/18 Client Sample ID:

Date Analyzed: 09/21/23 00:40 Lab File ID: 09200018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.64	Baseline Smoothing	LV5D	09/21/23 11:54
2-Nitrotoluene	16.10	Baseline Smoothing	LV5D	09/21/23 11:54
4-Nitrotoluene	16.32	Unspecified		
2-Amino-4,6-dinitrotoluene	17.73	Unspecified		
1,3,5-Trinitrobenzene	17.74	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	25.01	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: ICV 280-626878/19 Client Sample ID:

Date Analyzed: 09/21/23 01:15 Lab File ID: 09200019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.69	Baseline Smoothing	LV5D	09/21/23 11:54
1,3,5-Trinitrobenzene	17.70	Unspecified		
PETN	24.97	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 629022

Lab Sample ID: CCV 280-629022/37 Client Sample ID:

Date Analyzed: 10/10/23 08:17 Lab File ID: 10090037.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.65	Split Peak	K8YG	10/10/23 15:15
1,3,5-Trinitrobenzene	17.67	Split Peak	K8YG	10/10/23 15:15

Lab Sample ID: 280-181950-2 Client Sample ID: LL1mw-064-230901-GW

Date Analyzed: 10/10/23 09:27 Lab File ID: 10090039.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	10/10/23 15:17
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	K8YG	10/10/23 15:17
2-Nitrotoluene		Invalid Compound ID	K8YG	10/10/23 15:17
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	K8YG	10/10/23 15:17
PETN		Invalid Compound ID	K8YG	10/10/23 15:17
RDX		Invalid Compound ID	K8YG	10/10/23 15:17

Lab Sample ID: 280-181950-5 Client Sample ID: LL1mw-089-230902-GW

Date Analyzed: 10/10/23 10:02 Lab File ID: 10090040.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	K8YG	10/10/23 15:17
2-Nitrotoluene		Invalid Compound ID	K8YG	10/10/23 15:17
RDX		Invalid Compound ID	K8YG	10/10/23 15:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 629022

Lab Sample ID: CCV 280-629022/41 Client Sample ID:

Date Analyzed: 10/10/23 10:37 Lab File ID: 10090041.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.63	Split Peak	K8YG	10/10/23 15:18
1,3,5-Trinitrobenzene	17.65	Split Peak	K8YG	10/10/23 15:18

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 DMT_00013	08/24/23	02/24/23	Acetonitrile, Lot ACN_237	5 mL	MNX,TNX,DNX_00076	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00076	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 DMT_00015	01/20/24	07/20/23	Acetonitrile, Lot 222063	5 mL	MNX,TNX,DNX_00080	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00080	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 LCS_00127	11/30/23	05/31/23	Acetonitrile, Lot Acetonitrile_00079	100 mL	3,5-DNA Stock_00043	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00132	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00133	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00137	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00138	1 mL	PETN	100 ug/mL
					8330LCSMix1_00142	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00041	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
.3,5-DNA Stock_00043	08/31/27		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00132	02/17/26		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00133	02/17/26		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00137	08/31/25		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00138	08/31/25		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00142	04/30/27		Restek, Lot A0183848		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00041	12/31/27		Restek, Lot A0192237		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
8330 LCS_00130	01/01/24	08/09/23	Acetonitrile, Lot Acetonitrile_00080	100 mL	3,5-DNA Stock_00046	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00137	1.2 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00138	0.8 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00141	0.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00144	1.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00145	0.2 mL	PETN	100 ug/mL
					8330LCSMix1_00145	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00043	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
.3,5-DNA Stock_00046	08/09/24		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00137	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00138	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00141	07/01/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00144	08/09/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00145	08/09/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00145	08/09/24		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00043	08/09/24		Restek, Lot A0192237		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 LCS_00131	03/22/24	09/22/23	Acetonitrile, Lot Acetonitrile_00080	100 mL	3,5-DNA Stock_00047	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00139	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00140	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00145	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00146	1 mL	PETN	100 ug/mL
					8330LCSMix1_00146	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00044	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
					PicricARestek_00119	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.3,5-DNA Stock_00047	09/22/24		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00139	09/22/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00140	09/22/24		Restek, Lot A0200560		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00145	08/09/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00146	09/22/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00146	09/22/24		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00044	09/22/24		Restek, Lot A0192237		(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
.PicricARestek_00119	09/22/24		Restek, Lot A0183202		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_ADDs_00037	11/04/23	05/04/23	Acetonitrile, Lot ACN_237	5 mL	2,4Diamino6NT_00095	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00096	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00095	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00096	05/04/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330_OP_DMT_00021	02/29/24	06/21/23	Acetonitrile, Lot Acetonitrile_00077	10 mL	MNX,TNX,DNX_00078	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.03 ug/mL
.MNX,TNX,DNX_00078	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330_OP_DMT_00022	03/31/24	08/31/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	MNX,TNX,DNX_00081	1 mL	DNX	10.04 ug/mL
							MNX	11.71 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00081	03/31/24		Agilent, Lot 0006731787		(Purchased Reagent)		DNX	100.4 ug/mL
							MNX	117.1 ug/mL
							TNX	100.1 ug/mL
8330DiaminLCS_00058	04/10/24	06/08/23	Acetonitrile, Lot Acetonitrile_00077	25 mL	2,4Diamino6NT_00103	1 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,4Diamino6NT_00104	1 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,4Diamino6NT_00105	0.5 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00106	1 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00107	1 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00108	0.5 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
.2,4Diamino6NT_00103	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00104	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00105	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00106	06/03/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00107	06/03/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00108	06/03/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00060	04/10/24	07/26/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	2,4Diamino6NT_00110	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00111	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00113	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00114	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00110	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00111	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00113	06/03/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00114	06/03/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330IntermStk_00077	10/06/23	06/22/23	Acetonitrile, Lot ACN_239	10 mL	8330_NG_AUX_00006	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00012	1 mL	PETN	100 ug/mL
					833035DNAStk_00055	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	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

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitrotoluene	10 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_00072	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_AUX_00006	06/22/24	Restek, Lot A0192092			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00012	06/22/24	Restek, Lot A0194158			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00055	10/06/23	Accustandard, Lot 222011692-01			(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	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_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24	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
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00172	02/03/24	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00072	06/22/24	AccuStandard, Lot 218031154-04			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00078	02/03/24	09/20/23	Acetonitrile, Lot ACN_239	10 mL	8330_NG_AUX_00007	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00013	1 mL	PETN	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					833035DNAStk_00056	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	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_00073	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_AUX_00007	09/20/24		Restek, Lot A0192092		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00013	09/20/24		Restek, Lot A0194158		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00056	05/14/24		Accustandard, Lot 223041214		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	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_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24		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
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00172	02/03/24	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00073	09/20/24	AccuStandard, Lot 223031306			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00146	12/09/23	06/21/23	Acetonitrile, Lot Acetonitrile_00077	200 mL	8330SurrStkSS_00279	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00280	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00279	06/21/24	Restek, Lot A0194831			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00280	06/21/24	Restek, Lot A0194831			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00150	02/22/24	08/22/23	Acetonitrile, Lot Acetonitrile_00080	500 mL	8330SurrStkSS_00285	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00293	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00294	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00295	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00296	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00285	08/22/24	Restek, Lot A0197062			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00293	08/22/24	Restek, Lot A0198799			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00294	08/22/24	Restek, Lot A0198799			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00295	08/22/24	Restek, Lot A0198799			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00296	08/22/24	Restek, Lot A0198799			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL

Reagent

2,4Diamino6NT_00095

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00103

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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.

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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.

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

QR-ORG/INO-001
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Reagent

2,4Diamino6NT_00104

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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.

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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.

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

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Rev. 7/20

Reagent

2,4Diamino6NT_00105

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00110

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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

For use in routine laboratory analysis.

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

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

10/11/2023
10:32 AM

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: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ 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

2,4Diamino6NT_00111

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

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 ±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

For use in routine laboratory analysis.

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

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

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: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ 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

2,6Diamino4NT_00096

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ILAC-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00106

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00107

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00108

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New Haven, CT 06513
USA

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00113

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

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: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ 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

2,6Diamino4NT_00114

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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 ±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

For use in routine laboratory analysis.

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

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

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: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ 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

3,5-DNA Stock_00043

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

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

Expiration Date : August 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	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

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

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

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:

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

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

3,5-DNA Stock_00046

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

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

Expiration Date : August 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	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

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

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

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:

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

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

3,5-DNA Stock_00047

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

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

Expiration Date : August 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	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

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

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

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00127

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230531-122014.b\05310006.D

Lims ID: C18column:B16162 Inj. Date: 31-May-2023 17:22:45

Worklist ID: 280-0122014-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 0B_Sonc_
4 HMX	0.5000	0.4329	86.6	65-135	66-115
8 RDX	0.5000	0.4671	93.4	68-130	69-122
9 2,4,6-Trinitrophenol	0.5000	0.5329	106.6	80-120	63-135
11 1,3,5-Trinitrobenzene	0.5000	0.5033	100.7	73-125	62-127
12 1,3-Dinitrobenzene	0.5000	0.4985	99.7	78-120	59-131
13 Nitrobenzene	0.5000	0.5038	100.8	65-134	46-144
14 3,5-Dinitroaniline	0.5000	0.4774	95.5	71-117	
15 Tetryl	0.5000	0.5414	108.3	64-128	56-131
16 Nitroglycerin	5.00	5.05	101.0	74-127	70-125
17 2,4,6-Trinitrotoluene	0.5000	0.4730	94.6	71-123	46-139
18 4-Amino-2,6-dinitrotolu	0.5000	0.4839	96.8	76-125	43-120
19 2-Amino-4,6-dinitrotolu	0.5000	0.4728	94.6	79-120	46-124
20 2,6-Dinitrotoluene	0.5000	0.5046	100.9	77-127	51-130
21 2,4-Dinitrotoluene	0.5000	0.4810	96.2	78-120	53-127
22 o-Nitrotoluene	0.5000	0.4856	97.1	70-127	37-138
23 p-Nitrotoluene	0.5000	0.4749	95.0	71-127	41-137
24 m-Nitrotoluene	0.5000	0.4840	96.8	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

280-176937-A-4-A 280-176990-A-1-A 280-176990-A-2-A
280-176990-A-3-A 280-176990-A-4-A 280-176990-A-5-A
280-176990-A-6-A 280-176990-A-7-A 280-176990-A-8-A
280-176990-A-9-A 280-176990-A-10-A 280-176990-A-11-A
280-176990-A-12-A 280-176990-A-13-A

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

860-49847-E-4-A 280-176985-G-1-A

Reagent

8330 LCS_00130

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230809-124337.b\08090005.D
Lims ID: CH3CHOOH=acetic acid 0145
Client ID:
Sample Type: LCS
Inject. Date: 09-Aug-2023 11:47:26 ALS Bottle#: 71 Worklist Smp#: 5
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 130
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230809-124337.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Aug-2023 12:27:15 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

Compound	Amount Added	Amount Recovered	%Rec
4 HMX	0.2500	0.2135	85.38
8 RDX	0.2500	0.2274	90.98
9 2,4,6-Trinitrophenol	0.2500	0.2458	98.32
11 1,3,5-Trinitrobenzene	0.2500	0.2537	101.48
12 1,3-Dinitrobenzene	0.2500	0.2513	100.51
13 Nitrobenzene	0.2500	0.2478	99.11
14 3,5-Dinitroaniline	0.2500	0.2394	95.77
15 Tetryl	0.2500	0.2615	104.58
16 Nitroglycerin	2.50	2.53	101.11
17 2,4,6-Trinitrotoluene	0.2500	0.2454	98.16
18 4-Amino-2,6-dinitrotoluene	0.2500	0.2490	99.59
19 2-Amino-4,6-dinitrotoluene	0.2500	0.2500	100.02
20 2,6-Dinitrotoluene	0.2500	0.2352	94.08
21 2,4-Dinitrotoluene	0.2500	0.2450	98.00
22 o-Nitrotoluene	0.2500	0.2446	97.84
23 p-Nitrotoluene	0.2500	0.2395	95.81
24 m-Nitrotoluene	0.2500	0.2452	98.08
25 PETN	2.50	2.57	102.99

Reagent

8330 LCS_00131

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230923-125749.b\09230002.D

Lims ID: 8330AcidH2O_00003 Inj. Date: 23-Sep-2023 13:53:25

Worklist ID: 280-0125749-002 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4292	85.8	66-115	65-135	
8 RDX	0.5000	0.4561	91.2	69-122	68-130	
9 2,4,6-Trinitrophenol	0.5000	0.5243	104.9	63-135	80-120	
11 1,3,5-Trinitrobenzene	0.5000	0.5169	103.4	62-127	73-125	
12 1,3-Dinitrobenzene	0.5000	0.5082	101.6	59-131	78-120	
13 Nitrobenzene	0.5000	0.5026	100.5	46-144	65-134	
14 3,5-Dinitroaniline	0.5000	0.4673	93.5	55-119	71-117	
15 Tetryl	0.5000	0.5859	117.2	56-131	64-128	
16 Nitroglycerin	5.00	5.08	101.5	70-125	74-127	
17 2,4,6-Trinitrotoluene	0.5000	0.4859	97.2	46-139	71-123	
18 4-Amino-2,6-dinitrotolu	0.5000	0.5082	101.6	43-120	76-125	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4868	97.4	46-124	79-120	
20 2,6-Dinitrotoluene	0.5000	0.4973	99.5	51-130	77-127	
21 2,4-Dinitrotoluene	0.5000	0.5110	102.2	53-127	78-120	
22 o-Nitrotoluene	0.5000	0.4963	99.3	37-138	70-127	
23 p-Nitrotoluene	0.5000	0.4957	99.1	41-137	71-127	
24 m-Nitrotoluene	0.5000	0.5005	100.1	31-140	73-125	
25 PETN	5.00	5.13	102.6	67-127	73-127	

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

380-63263-B-1-A 570-153096-S-1-A 570-153096-R-2-A
570-153096-S-3-A 570-153096-S-4-A 570-153096-S-5-A

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

380-63150-C-1-A 380-63150-C-4-A 380-63150-C-6-A
380-63178-C-1-A 380-63178-D-3-A 380-63226-C-1-A
380-63226-C-2-A 380-63227-D-1-A 380-63227-C-3-A
380-63227-D-5-A 380-63227-C-7-A

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

280-181304-A-1-A 280-181304-A-2-A 280-181304-A-3-A

Reagent

8330 Stock_TS_00023

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Product Number: NAIM-833E-1

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

Lot Number: 0006684308

Lot Issue Date: 01-Jun-2022

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
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_AUX_00006

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0192092

Description : Nitroglycerin Standard

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

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

Expiration Date : November 30, 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%	1,005.0 µg/mL	+/- 46.8850

* 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.

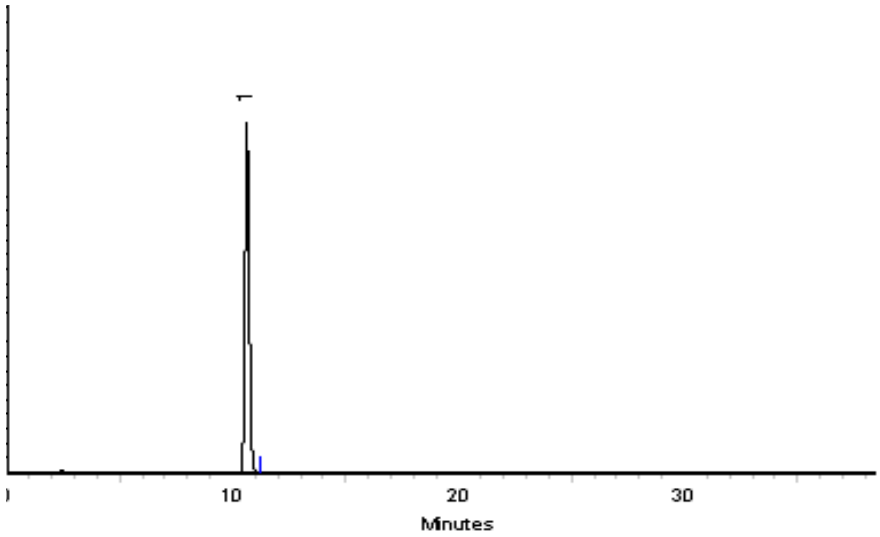
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brittany Federinko - Operations Tech I

Date Mixed: 30-Nov-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Dec-2022

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_AUX_00007

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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0192092

Description : Nitroglycerin Standard

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

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

Expiration Date : November 30, 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%	1,005.0 µg/mL	+/- 46.8850

* 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.

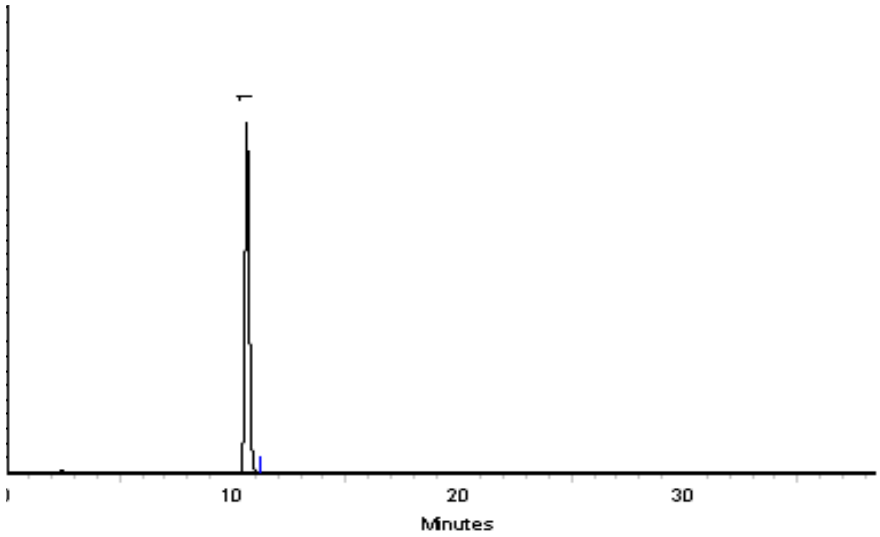
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brittany Federinko - Operations Tech I

Date Mixed: 30-Nov-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Dec-2022

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00132

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3223.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 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%

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00133

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3223.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 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%

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00137

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 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%

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00138

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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

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Certificate #3223.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 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%

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:

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Reagent

8330_NG_Stk_00139

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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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 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%

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:

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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

8330_NG_Stk_00140

RESTEK
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

ACCREDITED
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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0200560

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : August 31, 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%	5,037.2 µg/mL	+/- 237.7424

* 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.

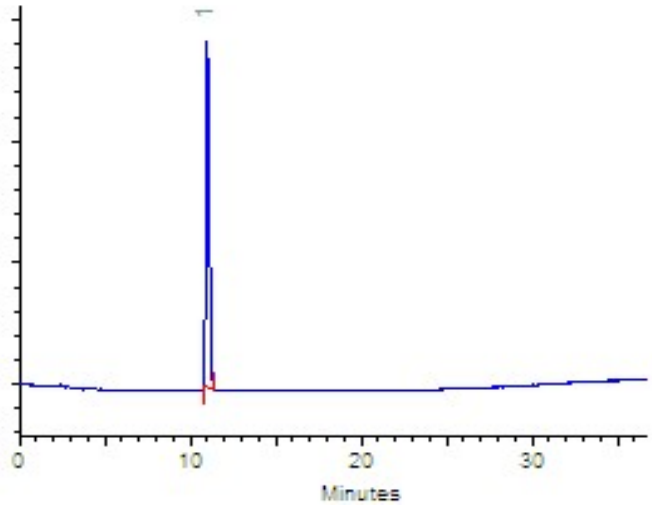
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Bryan Snyder - Operations Tech I

Date Mixed: 02-Aug-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Aug-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:

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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

8330_OP_DMT_00021

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230622-122822.b\06220012.D

Lims ID: OPDMT21 Inj. Date: 22-Jun-2023 18:40:06

Worklist ID: 280-0122822-012 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
3 TNX	0.5015	0.5101	101.7	50-150	
6 DNX	0.5005	0.5209	104.1	50-150	66-119
7 MNX	0.5835	0.6124	104.9	68-123	57-132

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

400-239200-B-1-A 400-239200-B-3-A 400-239200-B-6-A
400-239201-I-1-A 400-239201-H-2-A 400-239201-H-3-A
400-239201-H-4-A 400-239202-F-1-A 400-239202-F-2-A
400-239202-F-3-A 400-239202-F-4-A

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

280-178007-B-7-A 280-178007-B-8-A 280-178007-A-10-A
280-178007-B-11-A 280-178018-B-1-A 280-178018-A-2-A
280-178018-A-3-A 280-178018-B-4-A 280-178018-B-5-A
380-50652-K-1-A 380-50805-U-1-A

Reagent

8330_OP_DMT_00022

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230901-125089.b\09010011.D

Lims ID: DMT LCS22 Inj. Date: 01-Sep-2023 14:17:47

Worklist ID: 280-0125089-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
3 TNX	0.5005	0.4715	94.2	50-150
6 DNX	0.5020	0.4910	97.8	66-119
7 MNX	0.5855	0.5579	95.3	57-132

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

280-180213-A-1-A 280-180213-A-2-A 280-180213-A-3-A

280-180213-A-4-A 280-180213-A-5-A 280-180213-A-6-A

280-180213-A-7-A 280-180213-A-8-A 280-180213-A-9-A

280-180213-A-10-A 280-180213-A-11-A

Reagent

8330_PETN_Stk_00137

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	PETN		5,000.0	µg/mL	+/- 46.4973	µg/mL	Gravimetric
	CAS # 78-11-5	(Lot 051108JLM)			+/- 276.2417	µg/mL	Unstressed
	Purity 99%				+/- 321.4093	µg/mL	Stressed

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

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

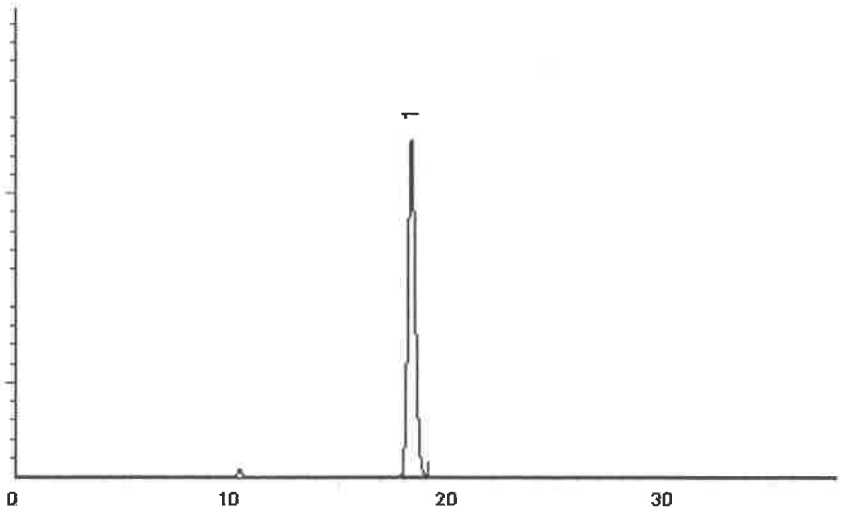
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00138

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,000.0 µg/mL	+/- 46.4973 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 276.2417 µg/mL	Unstressed
	Purity 99%		+/- 321.4093 µg/mL	Stressed

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

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

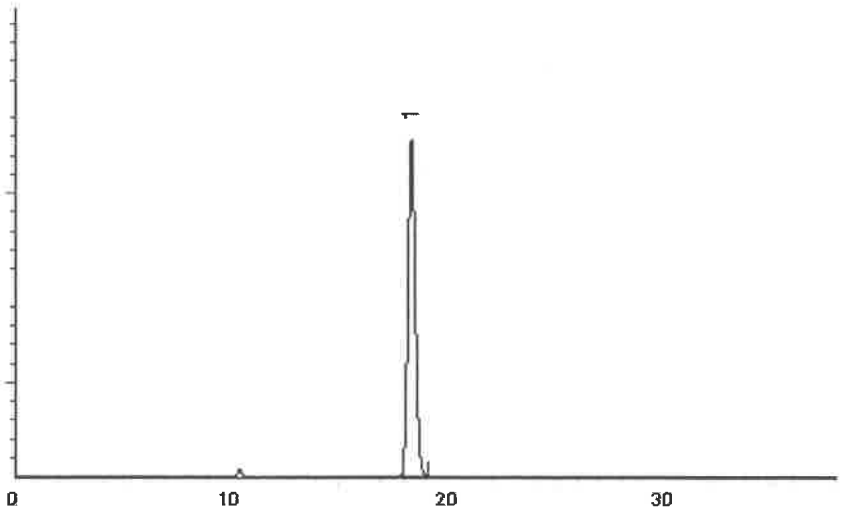
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00141

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0197735

Description : Custom PETN Standard

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

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

Expiration Date : May 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%	5,020.0 µg/mL	+/- 236.9306

* 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.

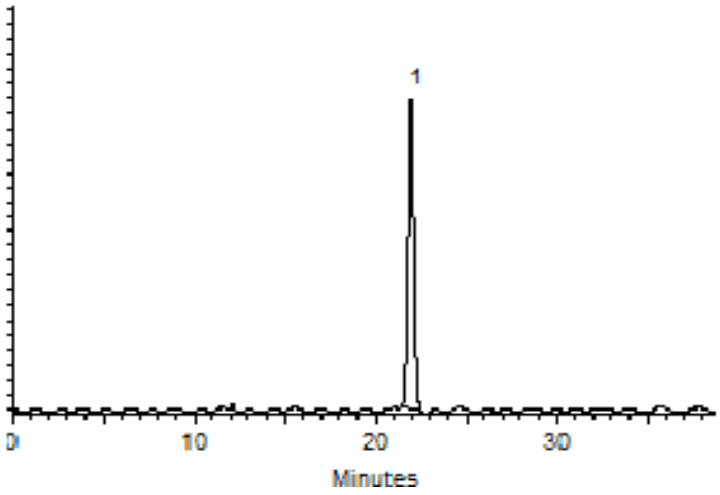
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 04-May-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-May-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00144

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0197735

Description : Custom PETN Standard

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

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

Expiration Date : May 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%	5,020.0 µg/mL	+/- 236.9306

* 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.

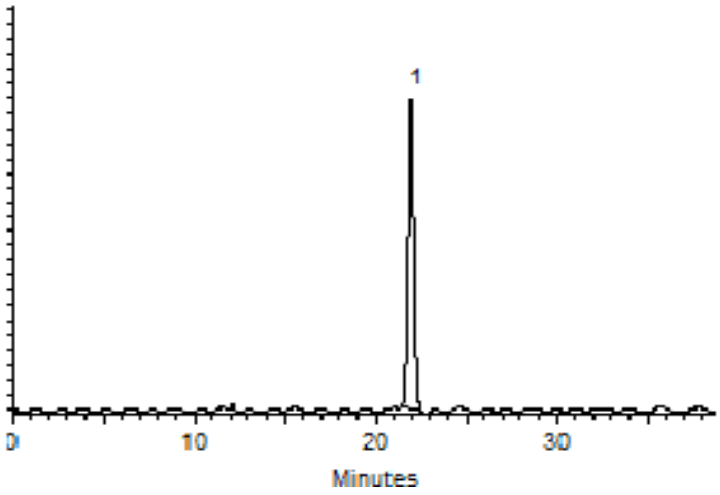
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 04-May-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-May-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00145

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 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%	5,012.0 µg/mL	+/- 236.5531

* 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.

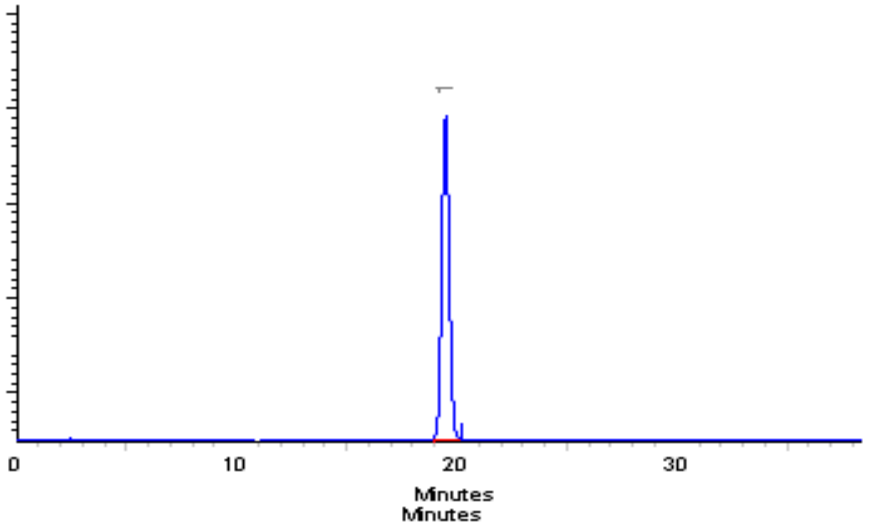
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00146

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 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%	5,012.0 µg/mL	+/- 236.5531

* 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.

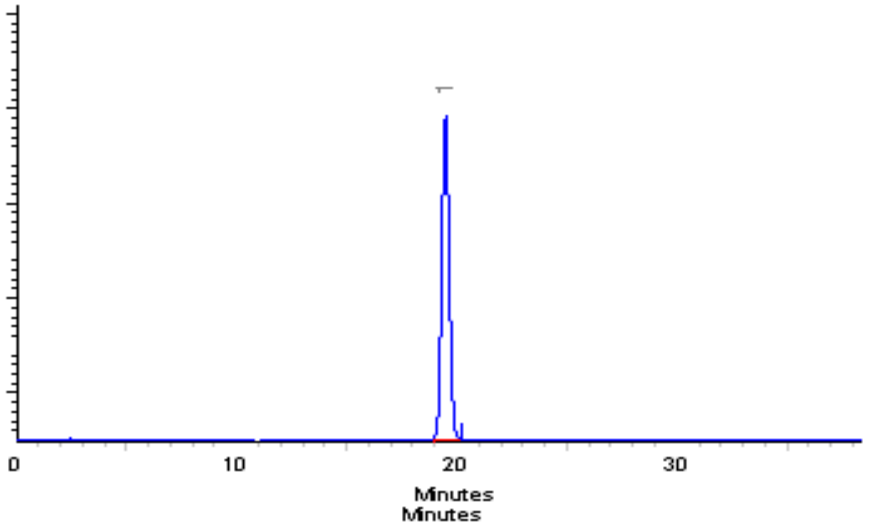
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00012

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 **Lot No.:** A0194158

Description : PETN Standard

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

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

Expiration Date : January 31, 2028 **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%	1,009.0 µg/mL	+/- 47.0716

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

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

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:

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

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

- 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_00013

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 **Lot No.:** A0194158

Description : PETN Standard

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

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

Expiration Date : January 31, 2028 **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%	1,009.0 µg/mL	+/- 47.0716

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

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

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:

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

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

- 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_00055

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 222011692-01
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 6, 2022
Expiration: Oct 6, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	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

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 ±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

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 7/20

Reagent

833035DNAStk_00056

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 223041214
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Apr 14, 2023
Expiration: May 14, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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 ±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.

Reagent

8330DiaminLCS_00058

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230608-122323.b\0608DIA58.D

Lims ID: DiaminoLCS58 Inj. Date: 08-Jun-2023 15:03:39

Worklist ID: 280-0122323-061 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 2,6-diamino-4-nitrotolu	0.5000	0.4653	93.1	10-150
5 2,4-diamino-6-nitrotolu	0.5000	0.4588	91.8	10-150

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

280-177189-A-2-B
280-177189-A-5-B
280-177189-A-8-B
280-177189-A-11-B
280-177191-A-1-B
280-177191-A-2-B
280-177191-A-3-B
280-177191-A-4-B
280-177191-A-5-B
280-177191-A-6-B
280-177191-A-7-B
280-177191-A-8-D
280-177191-A-9-B
280-177191-A-10-B
280-177191-A-11-B
280-177191-A-12-B
280-177191-A-13-B
280-177191-A-14-B
280-177191-A-15-C

Reagent

8330DiaminLCS_00060

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230728-123981.b\07280011.D

Lims ID: 8330DiaLCS60 Inj. Date: 28-Jul-2023 16:13:22

Worklist ID: 280-0123981-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 2,6-diamino-4-nitrotolu	0.5000	0.4808	96.2	10-150
5 2,4-diamino-6-nitrotolu	0.5000	0.4712	94.2	10-150

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

280-179122-A-3-F
680-237803-D-8-B
680-237803-G-9-B
680-237803-G-10-B
680-237803-G-11-B
680-237803-G-12-B
680-237803-G-13-B
680-237803-C-14-B
680-237803-F-15-B
680-237803-G-16-B
680-237803-G-17-B
680-237803-G-18-B
680-237803-G-19-B
680-237803-G-20-D
680-237803-C-21-B
680-237803-F-22-B
680-237803-F-23-B
680-237803-F-24-B
680-237803-F-25-B
680-237803-F-26-B
680-237803-F-27-B
680-237800-D-1-B
680-237800-G-2-B
680-237800-G-3-F
680-237800-G-4-B

Reagent

8330LCSMix1_00142

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Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** A0183848

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 2691-41-0 (Lot 210324JLM)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
2	RDX	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 121-82-4 (Lot 080228JLM)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 99-35-4 (Lot A6TDK)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
4	1,3-Dinitrobenzene	1,006.0 µg/mL	+/- 5.9753 µg/mL	Gravimetric
	CAS # 99-65-0 (Lot 1-DXX-24-1)		+/- 55.1117 µg/mL	Unstressed
	Purity 99%		+/- 64.2657 µg/mL	Stressed
5	Nitrobenzene	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 98-95-3 (Lot 10224044)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 118-96-7 (Lot D11836200)		+/- 54.8926 µg/mL	Unstressed
	Purity 99%		+/- 64.0101 µg/mL	Stressed
7	2,4-Dinitrotoluene	1,005.0 µg/mL	+/- 5.9694 µg/mL	Gravimetric
	CAS # 121-14-2 (Lot MKAA0690V)		+/- 55.0569 µg/mL	Unstressed
	Purity 99%		+/- 64.2018 µg/mL	Stressed

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

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

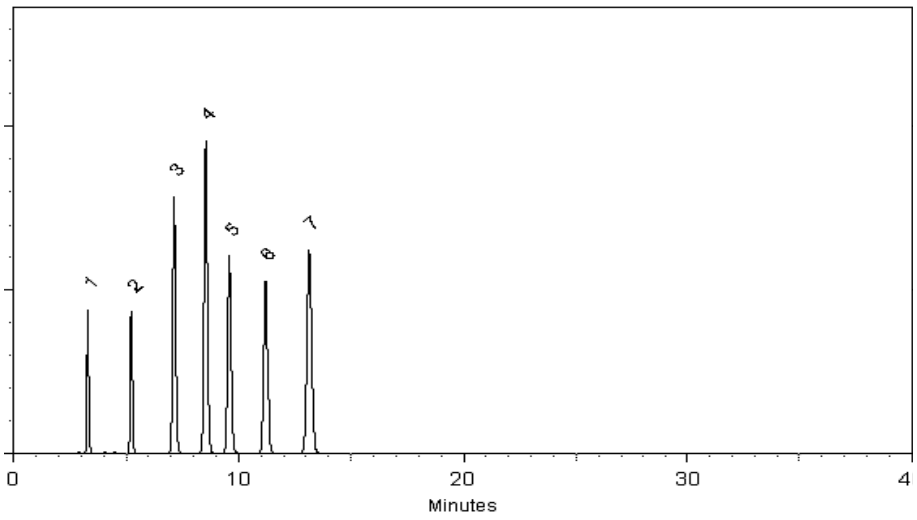
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995

Fang-Yun Lo - QC Analyst

Date Passed: 13-Apr-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSMix1_00145

4 vials Rec. 10/6/20
8330 Cali mix 1

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

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.:** A0163590

Description : 8330 Calibration Mix #1

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX **CAS #** 2691-41-0 **Purity** 98%	(Lot 191003JLM)	1,002.5 µg/mL	+/- 5.9548 µg/mL +/- 54.9222 µg/mL +/- 64.0446 µg/mL		Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL		Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 99%	(Lot A6TDK)	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL		Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,007.0 µg/mL	+/- 5.9813 µg/mL +/- 55.1665 µg/mL +/- 64.3295 µg/mL		Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL		Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot 5737200)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL		Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690V)	1,009.0 µg/mL	+/- 5.9932 µg/mL +/- 55.2761 µg/mL +/- 64.4573 µg/mL		Gravimetric Unstressed Stressed

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

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

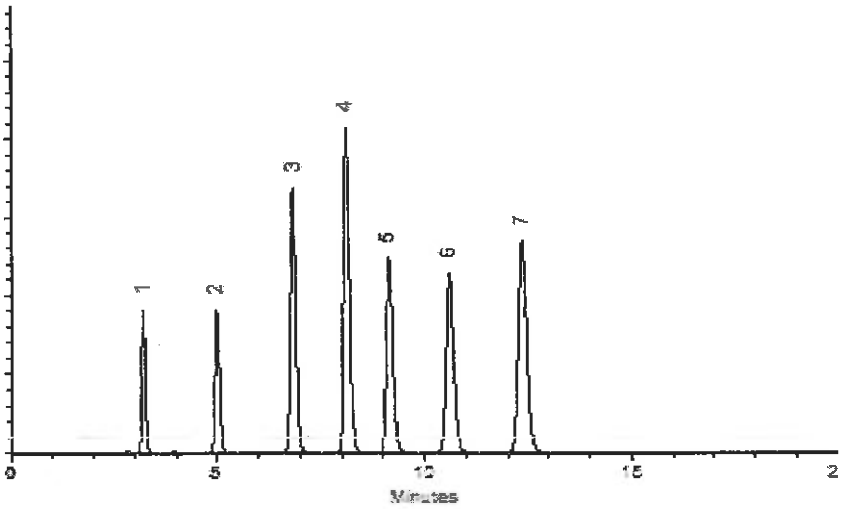
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Dalton Stover - Operations Technician I

Date Mixed: 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Aug-2020

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

Reagent

8330LCSMix1_00146

4 vials Rec. 10/6/20
8330 Cali mix 1

RESTEK CERTIFIED REFERENCE MATERIAL

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

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

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.:** A0163590

Description : 8330 Calibration Mix #1

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX		1,002.5 µg/mL	+/- 5.9548	µg/mL	Gravimetric
	CAS # 2691-41-0	(Lot 191003JLM)		+/- 54.9222	µg/mL	Unstressed
	Purity 98%			+/- 64.0446	µg/mL	Stressed
2	RDX		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 121-82-4	(Lot 080228JLM)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
3	1,3,5-Trinitrobenzene		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 99-35-4	(Lot A6TDK)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
4	1,3-Dinitrobenzene		1,007.0 µg/mL	+/- 5.9813	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBN4329V)		+/- 55.1665	µg/mL	Unstressed
	Purity 99%			+/- 64.3295	µg/mL	Stressed
5	Nitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBJ3622)		+/- 54.7830	µg/mL	Unstressed
	Purity 99%			+/- 63.8824	µg/mL	Stressed
6	2,4,6-Trinitrotoluene		1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 118-96-7	(Lot 5737200)		+/- 55.1117	µg/mL	Unstressed
	Purity 99%			+/- 64.2657	µg/mL	Stressed
7	2,4-Dinitrotoluene		1,009.0 µg/mL	+/- 5.9932	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)		+/- 55.2761	µg/mL	Unstressed
	Purity 99%			+/- 64.4573	µg/mL	Stressed

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

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

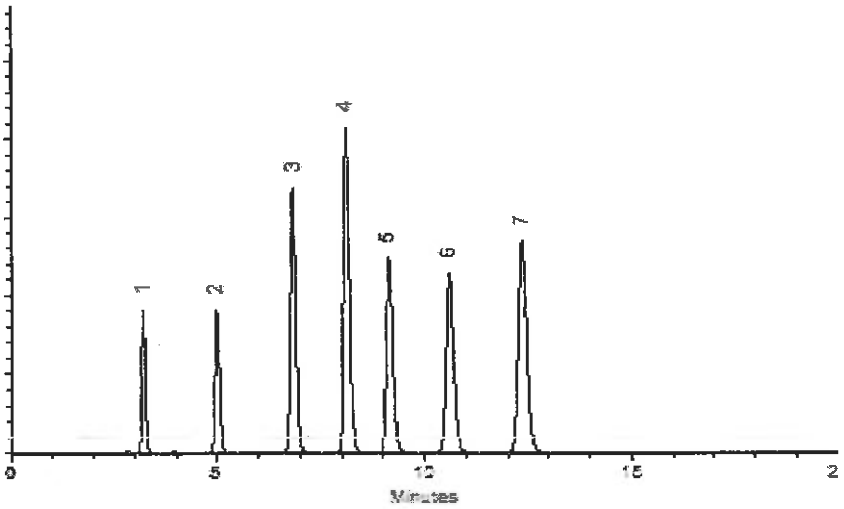
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Dalton Stover - Operations Technician I

Date Mixed: 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Aug-2020

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

Reagent

8330LCSmix2_00041

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

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

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

Expiration Date : December 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	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
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%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* 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.

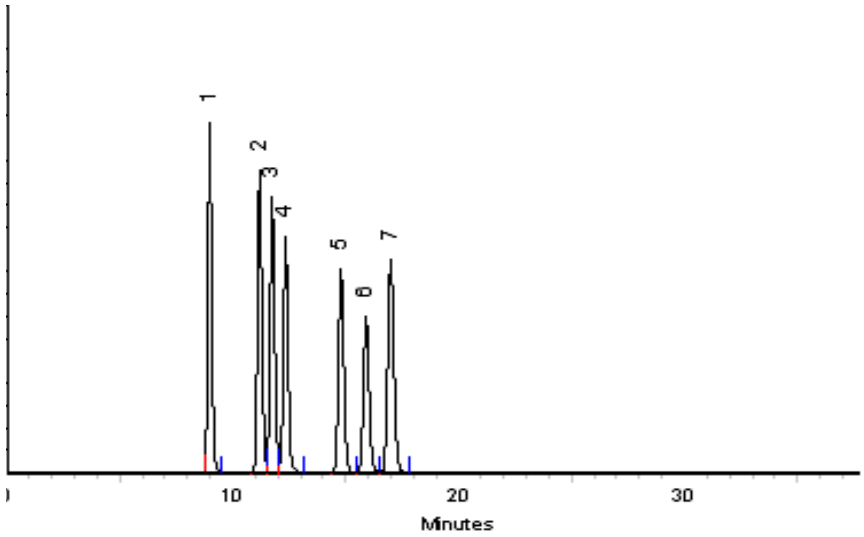
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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:

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

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

8330LCSmix2_00043

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

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

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

Expiration Date : December 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	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
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%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* 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.

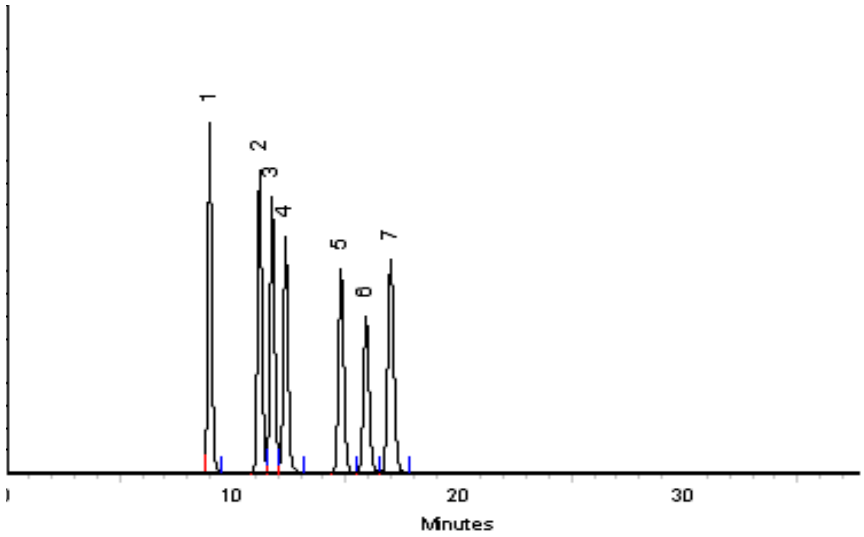
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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:

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

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

8330LCSmix2_00044

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

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

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

Expiration Date : December 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	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
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%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* 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.

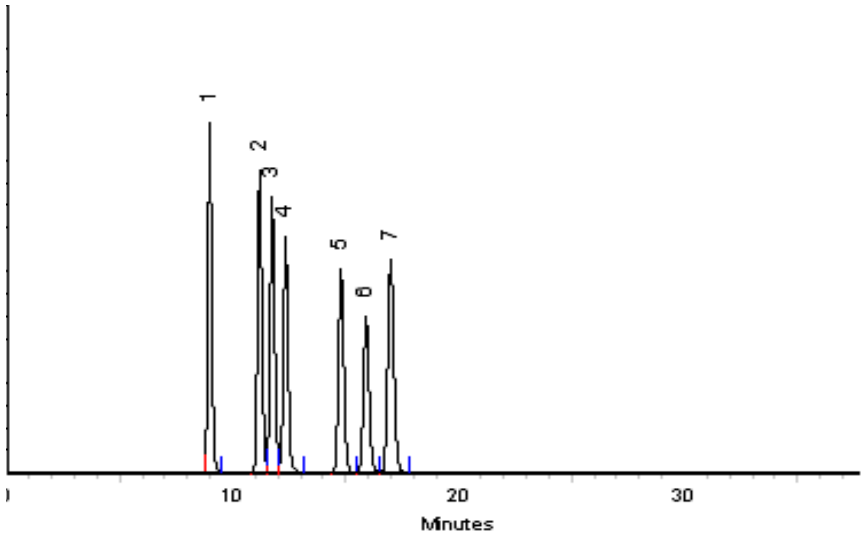
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00072

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 218031154-04
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Aug 30, 2022
Expiration: Sep 30, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (HPLC)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

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. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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.

Reagent

8330PAStkPS_00073

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 223031306
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Mar 23, 2023
Expiration: Apr 23, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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 ±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.

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

Reagent

8330Surrogate_00146

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230622-122822.b\06220011.D

Lims ID: 8330Surr146 Inj. Date: 22-Jun-2023 18:17:12

Worklist ID: 280-0122822-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5234	104.7	63-127	83-119

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

400-239200-B-1-A	400-239200-B-3-A	400-239200-B-6-A
400-239201-I-1-A	400-239201-H-2-A	400-239201-H-3-A
400-239201-H-4-A	400-239202-F-1-A	400-239202-F-2-A
400-239202-F-3-A	400-239202-F-4-A	

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

280-178007-B-7-A	280-178007-B-8-A	280-178007-A-10-A
280-178007-B-11-A	280-178018-B-1-A	280-178018-A-2-A
280-178018-A-3-A	280-178018-B-4-A	280-178018-B-5-A
380-50652-K-1-A	380-50805-U-1-A	

Reagent

8330Surrogate_00150

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230822-124734.b\08220011.D

Lims ID: Surr150 Inj. Date: 22-Aug-2023 20:04:51

Worklist ID: 280-0124734-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.2500	0.2372	94.9	78-119	83-122

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

680-238231-F-10-B

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

280-179677-A-20-B 280-179677-A-23-B

Reagent

8330SurrStkSS_00279

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

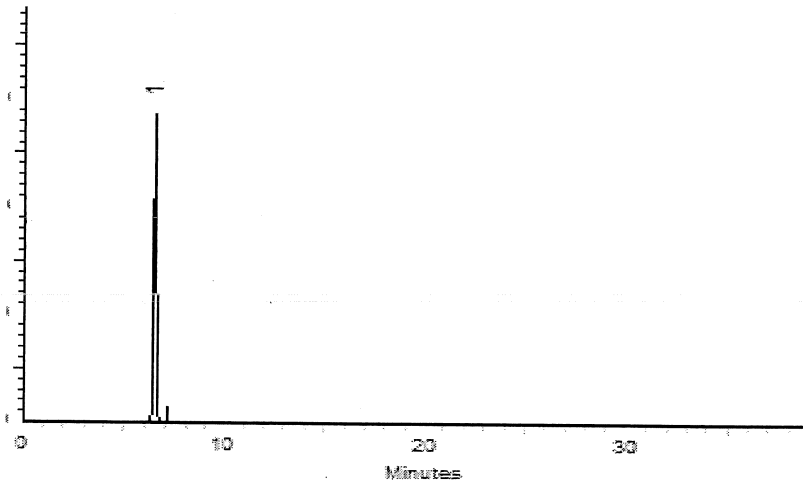
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00280

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

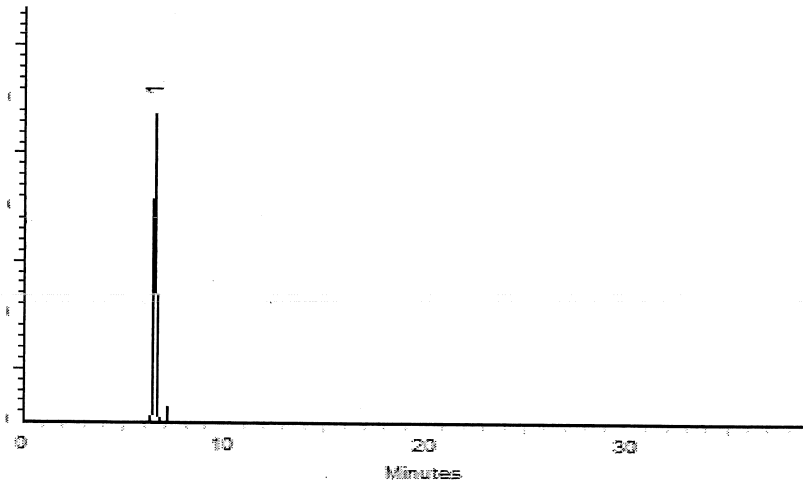
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00285

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0197062

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 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	1,2-Dinitrobenzene	528-29-0	STBK9056	99%	1,001.6 µg/mL	+/- 56.2801

* 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.

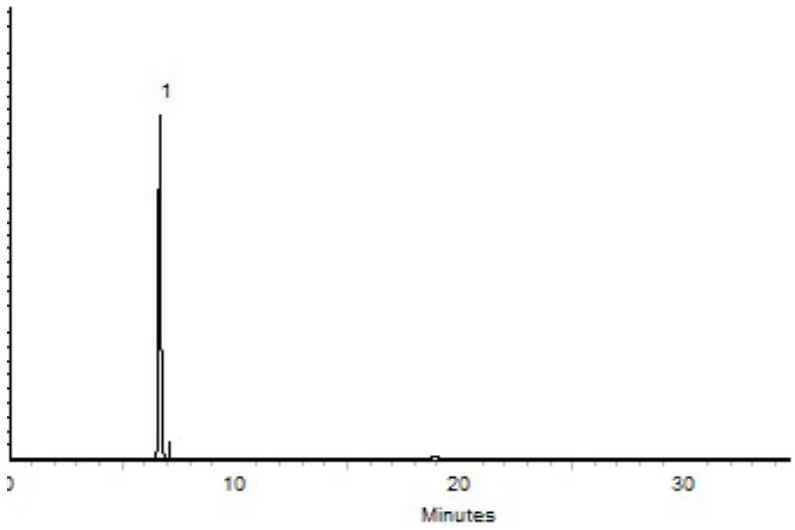
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Penelope Riglin - Operations Tech I

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00293

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

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

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

Expiration Date : June 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	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* 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.

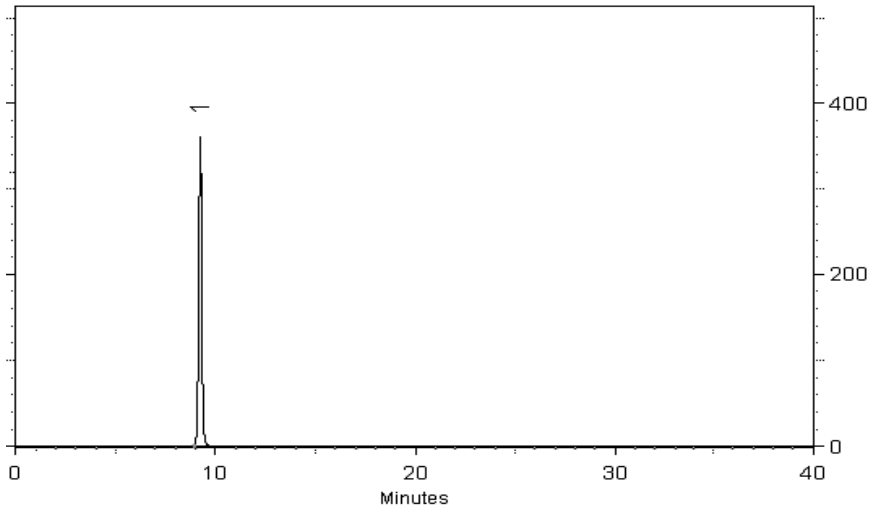
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00294

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

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

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

Expiration Date : June 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	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* 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.

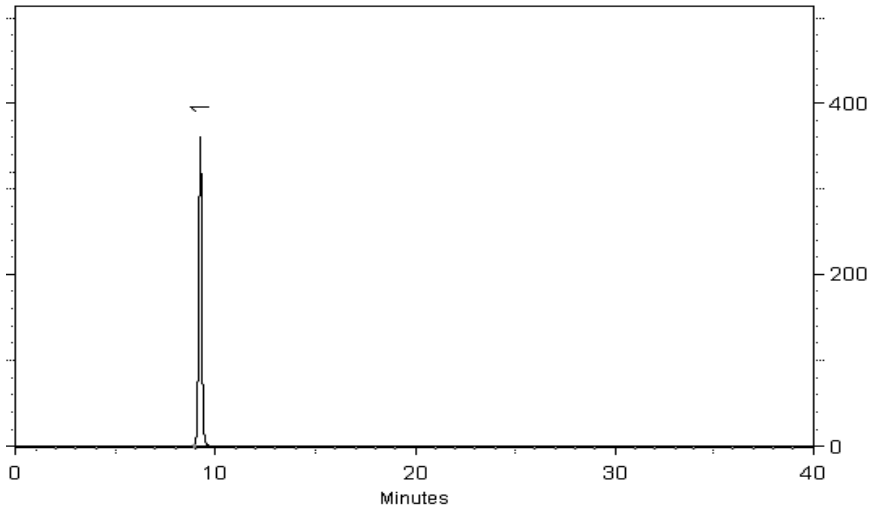
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00295

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

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

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

Expiration Date : June 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	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* 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.

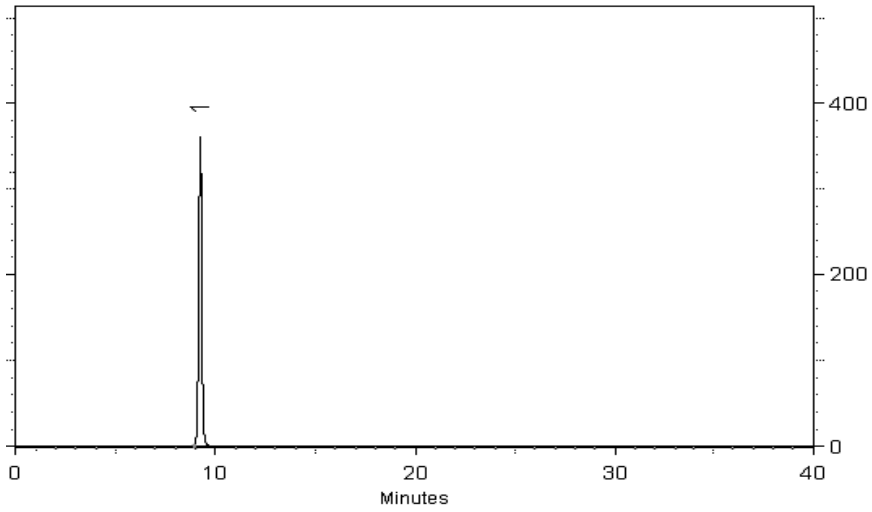
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- 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_00296

RESTEK
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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

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

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

Expiration Date : June 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	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* 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.

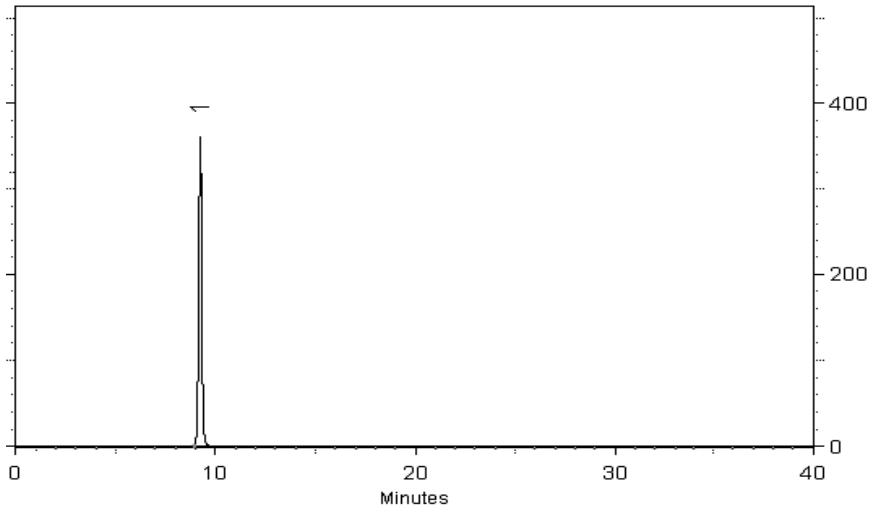
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-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:

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

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

8330SurrStock_00172

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ILAC-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (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 ±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

For use in routine laboratory analysis.

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

Reagent

MNX,TNX,DNX_00076

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

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

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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 (RM) 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:

Reagent

MNX,TNX,DNX_00078

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

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

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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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.

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

Intended Use:
This analytical reference (RM) 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:

Reagent

MNX,TNX,DNX_00080

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

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

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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 (RM) 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:

Reagent

MNX,TNX,DNX_00081

Agilent
Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006731787
Lot Issue Date: 28-Feb-2023
Expiration Date: 31-Mar-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.1	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.4	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	117.1	±	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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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 (RM) 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:

Agilent
Trusted Answers

The certification of this analytical reference standard (RM) 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

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

ISO 17025

Reagent

PicricARestek_00119

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31499 **Lot No.:** A0183202

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%		+/- 64.1379	µg/mL	Stressed

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

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

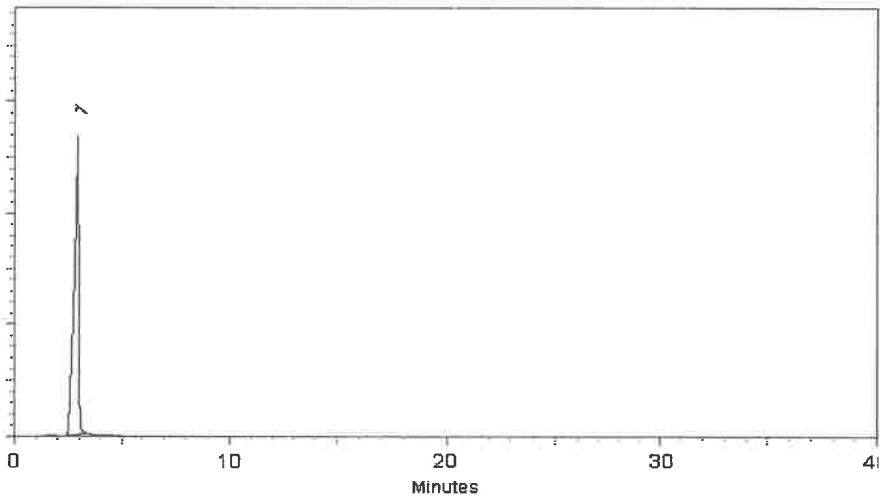
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Brandon Reish - Mix Technician

Date Mixed: 23-Mar-2022 **Balance:** 1128360905

Amanda Miller - Operations Tech-ARM QC

Date Passed: 28-Mar-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-181950-1

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 #
FWGmw-010-230901-GW	280-181950-1	98 M	
LL1mw-064-230901-GW	280-181950-2	94 M	
LL1mw-064-230901-GW	280-181950-2		88
FWGmw-011-230901-GW	280-181950-3	88	
LL1mw-089-230901-GW	280-181950-4	92 M	
LL1mw-089-230902-GW	280-181950-5	80 M Q	
LL1mw-089-230902-GW	280-181950-5		75 Q
FWGmw-012-230901-GW	280-181950-6	85	
FWGmw-016-230901-GW	280-181950-7	83 M	
	MB 280-628078/1-A	79 Q M	
	LCS 280-628078/2-A	99	
	LCS 280-628078/4-A	89 M	
	LCSD 280-628078/3-A	87	
	LCSD 280-628078/5-A	100	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	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.: 280-181950-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10070038.D

Lab ID: LCS 280-628078/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.25	113	73-125	
1,3-Dinitrobenzene	2.00	2.11	106	78-120	
2,4,6-Trinitrotoluene	2.00	2.02	101	71-123	
2,4-Dinitrotoluene	2.00	2.02	101	78-120	
2,6-Dinitrotoluene	2.00	2.02	101	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.97	98	79-120	
2-Nitrotoluene	2.00	1.74	87	70-127	
3,5-Dinitroaniline	2.00	1.86	93	71-117	
3-Nitrotoluene	2.00	1.70	85	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.82	91	76-125	
4-Nitrotoluene	2.00	1.62	81	71-127	
DNX	2.01	2.03	101	66-119	M
HMX	2.00	1.93	96	65-135	M
MNX	2.34	2.30	98	57-132	
Nitrobenzene	2.00	1.93	96	65-134	
Nitroglycerin	20.0	21.9	109	74-127	
PETN	20.0	22.7	114	73-127	
RDX	2.00	1.97	98	68-130	
Tetryl	2.00	2.12	106	64-128	
TNX	2.00	1.84	92	50-150	M

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10070040.D

Lab ID: LCS 280-628078/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2.00	0.916 J	46	68-122	M Q
2,6-diamino-4-nitrotoluene	2.00	1.13	56	72-122	M Q

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10070039.D

Lab ID: LCSD 280-628078/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	1.99	100	12	20	73-125	
1,3-Dinitrobenzene	2.00	1.88	94	12	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.80	90	12	20	71-123	
2,4-Dinitrotoluene	2.00	1.79	89	12	20	78-120	
2,6-Dinitrotoluene	2.00	1.79	89	12	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.73	86	13	20	79-120	
2-Nitrotoluene	2.00	1.50	75	15	20	70-127	
3,5-Dinitroaniline	2.00	1.62	81	14	20	71-117	
3-Nitrotoluene	2.00	1.53	77	10	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.48	74	21	20	76-125	Q
4-Nitrotoluene	2.00	1.40	70	14	20	71-127	Q
DNX	2.01	1.87	93	8	20	66-119	M
HMX	2.00	1.80	90	7	20	65-135	M
MNX	2.34	2.19	93	5	20	57-132	
Nitrobenzene	2.00	1.67	84	14	20	65-134	
Nitroglycerin	20.0	19.9	99	10	20	74-127	
PETN	20.0	20.6	103	10	20	73-127	
RDX	2.00	1.82	91	8	20	68-130	
Tetryl	2.00	1.86	93	13	20	64-128	
TNX	2.00	1.65	83	11	20	50-150	M

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10070041.D

Lab ID: LCSD 280-628078/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2.00	0.914 J	46	0	20	68-122	M Q
2,6-diamino-4-nitrotoluene	2.00	1.22	61	8	20	72-122	M Q

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: MB 280-628078/1-A

Matrix: Water Date Extracted: 10/02/2023 15:27

Lab File ID:(1) 10070037.D Lab File ID:(2)

Date Analyzed:(1) 10/08/2023 00:56 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 280-628078/2-A	10/08/2023 01:19	
	LCSD 280-628078/3-A	10/08/2023 01:42	
	LCS 280-628078/4-A	10/08/2023 02:05	
	LCSD 280-628078/5-A	10/08/2023 02:27	
FWGmw-010-230901-GW	280-181950-1	10/08/2023 07:26	
LL1mw-064-230901-GW	280-181950-2	10/08/2023 07:49	10/10/2023 09:27
FWGmw-011-230901-GW	280-181950-3	10/08/2023 08:12	
LL1mw-089-230901-GW	280-181950-4	10/08/2023 09:21	
LL1mw-089-230902-GW	280-181950-5	10/08/2023 09:44	10/10/2023 10:02
FWGmw-012-230901-GW	280-181950-6	10/08/2023 10:06	
FWGmw-016-230901-GW	280-181950-7	10/08/2023 10:29	

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: FWGmw-010-230901-GW | Lab Sample ID: 280-181950-1

Matrix: Water | Lab File ID: 10070054.D

Analysis Method: 8330B | Date Collected: 09/25/2023 11:06

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 484.6(mL) | Date Analyzed: 10/08/2023 07:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.087
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	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.93	U Q	1.0	0.93	0.45
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.93	U M Q	1.0	0.93	0.23
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
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 Q	0.15	0.12	0.060
99-99-0	4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.090
5755-27-1	MNX	0.30	U	0.52	0.30	0.096
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
13980-04-6	TNX	0.26	U	0.52	0.26	0.082

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070054.D
Lims ID: 280-181950-A-1-A
Client ID: FWGmw-010-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 07:26:23 ALS Bottle#: 54 Worklist Smp#: 54
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-A-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:14 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:06

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.438			ND	U
	3 TNX	1		6.450			ND	
	4 HMX	1		6.570			ND	
	5 2,4-diamino-6-nitrotoluene	1		6.625			ND	
	6 DNX	1		6.776			ND	
	7 MNX	1		7.196			ND	
	8 RDX	1		7.576			ND	
$	10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	24381	0.1968	M
	11 1,3,5-Trinitrobenzene	1	8.629	8.643	-0.014	414	0.001916	7Ma
	12 1,3-Dinitrobenzene	1		9.250			ND	
	13 Nitrobenzene	1		9.616			ND	
	14 3,5-Dinitroaniline	1		9.830			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.410			ND	
	17 2,4,6-Trinitrotoluene	1		10.843			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.423			ND	
	21 2,4-Dinitrotoluene	1		11.590			ND	
	22 o-Nitrotoluene	1		12.390			ND	
	23 p-Nitrotoluene	1		12.796			ND	
	24 m-Nitrotoluene	1		13.356			ND	
	25 PETN	2		14.470			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

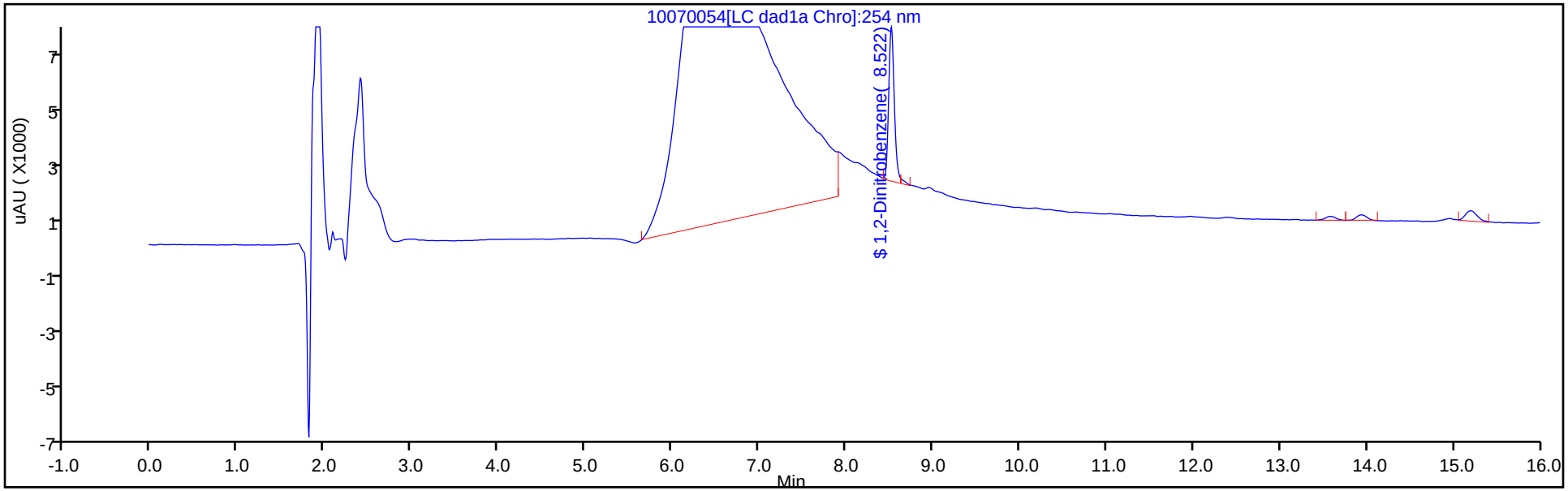
Review Flags
M - Manually Integrated
U - Marked Undetected
a - User Assigned ID

Report Date: 09-Oct-2023 11:17:19 Chrom Revision: 2.3 22-Sep-2023 11:33:50

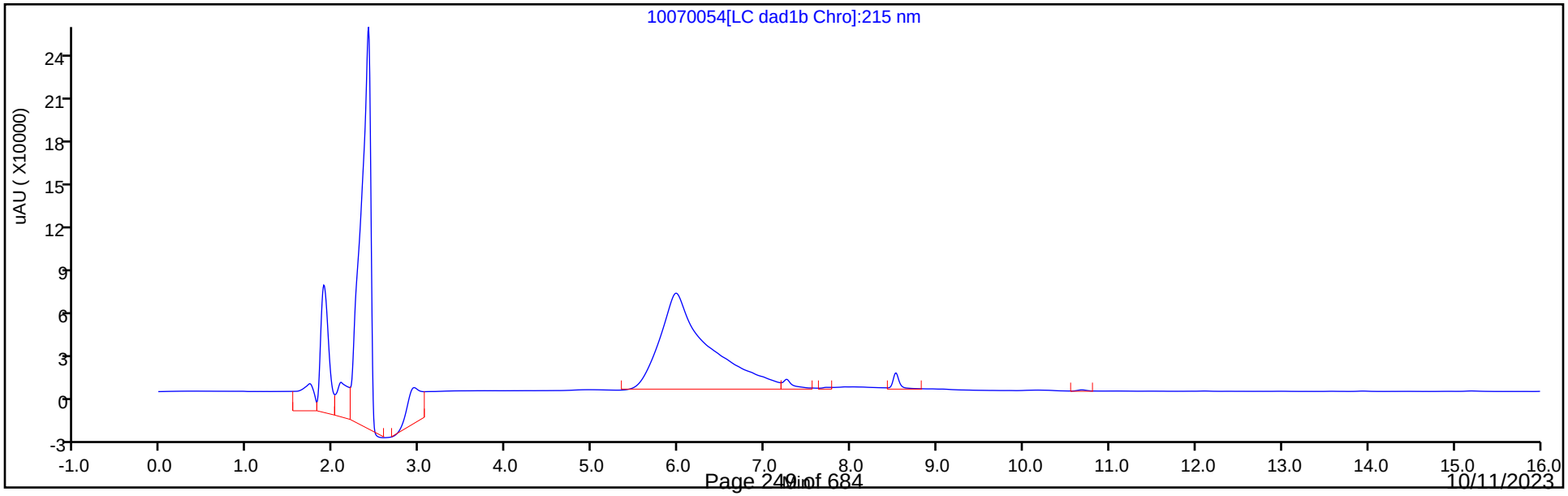
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070054.d				
Injection Date:	08-Oct-2023 07:26:23	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-A-1-A	Lab Sample ID:	280-181950-1	Worklist Smp#:	54
Client ID:	FWGmw-010-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
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



10/11/2023
10:32 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070054.D				
Lims ID:	280-181950-A-1-A				
Client ID:	FWGmw-010-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 07:26:23	ALS Bottle#:	54	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-A-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:14	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1968	98.38

Manual Integration/User Assign Peak Report

Eurofins Denver

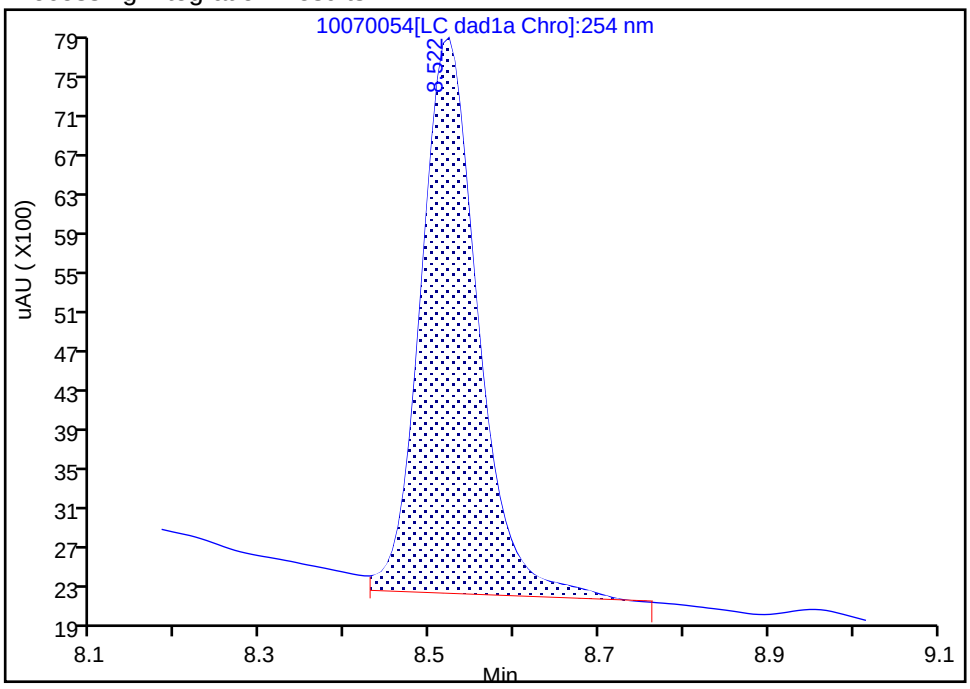
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070054.d				
Injection Date:	08-Oct-2023 07:26:23	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-A-1-A	Lab Sample ID:	280-181950-1		
Client ID:	FWGmw-010-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	54	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

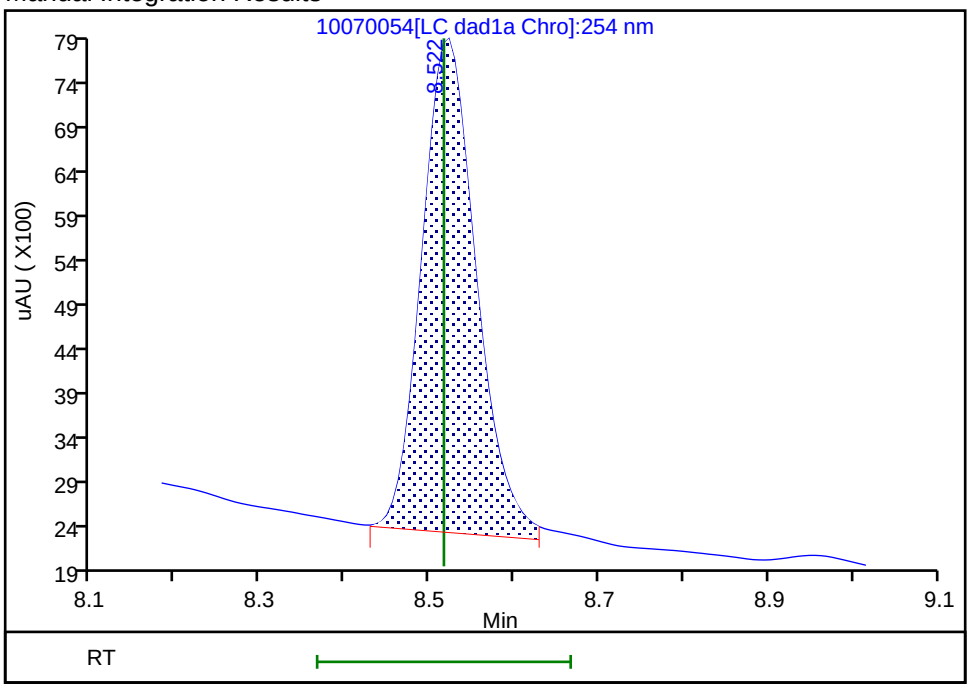
Processing Integration Results

RT: 8.52
Area: 26074
Amount: 0.210425
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 24381
Amount: 0.196762
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:12:18 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

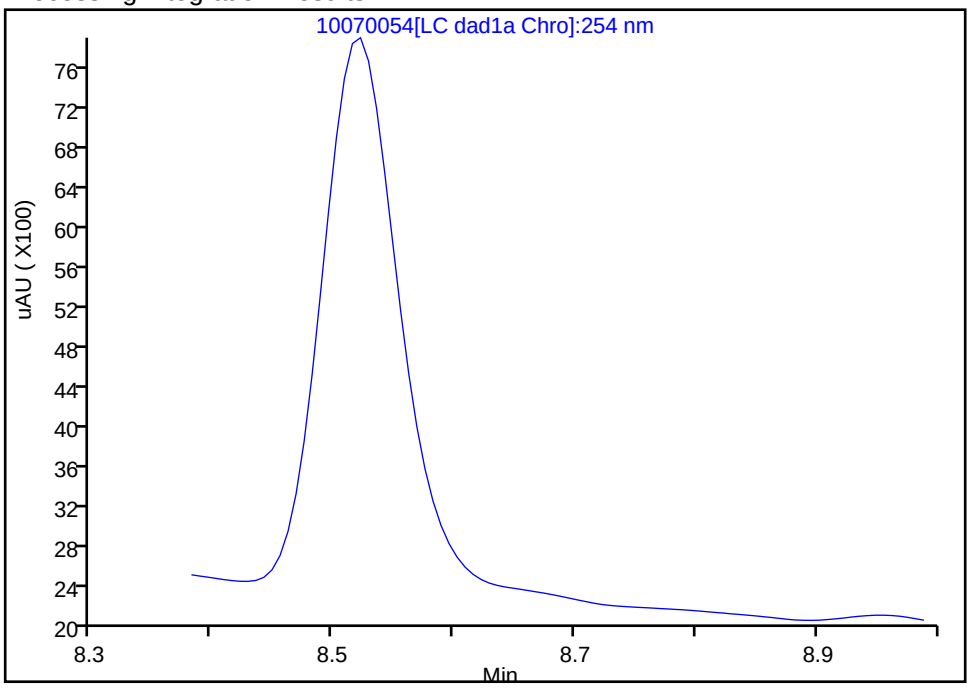
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070054.d				
Injection Date:	08-Oct-2023 07:26:23	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-A-1-A	Lab Sample ID:	280-181950-1		
Client ID:	FWGmw-010-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	54	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

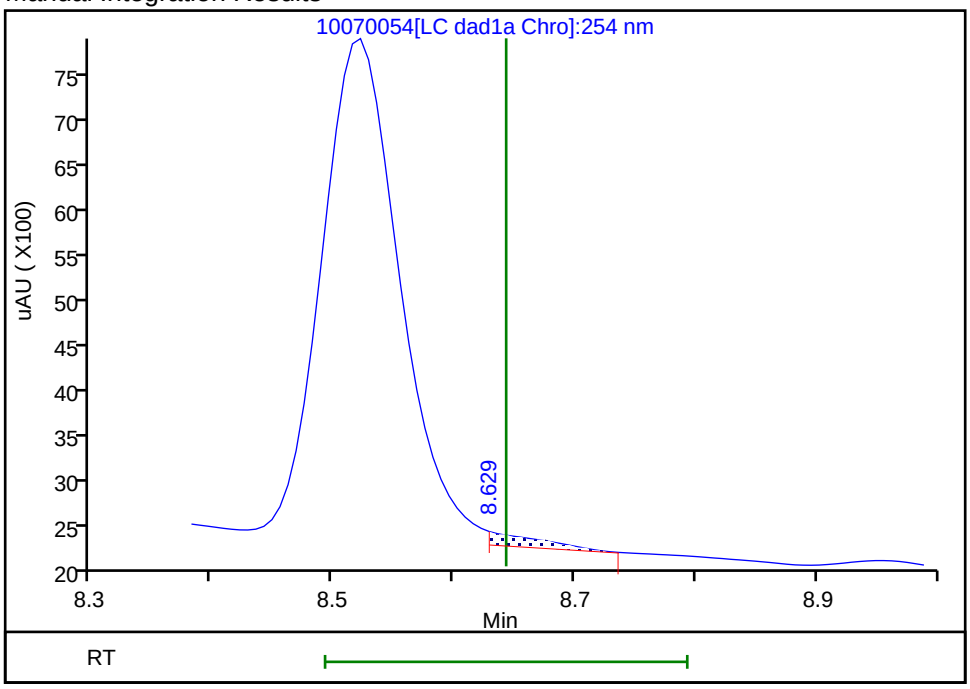
Not Detected
Expected RT: 8.64

Processing Integration Results



Manual Integration Results

RT: 8.63
Area: 414
Amount: 0.001916
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:12:21 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

User Disabled Compound Report

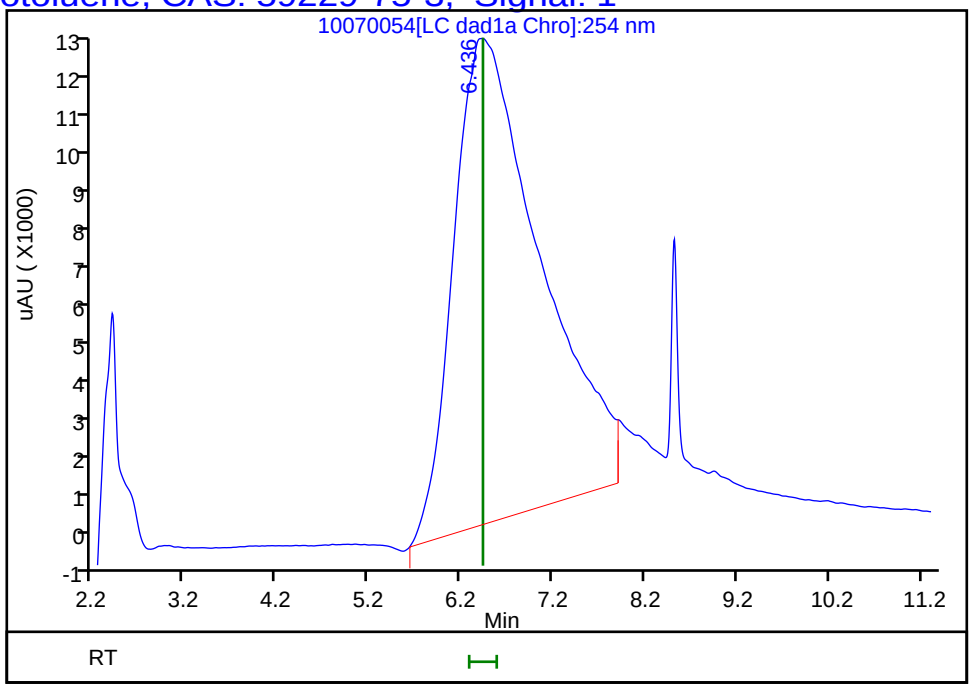
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070054.d
Injection Date: 08-Oct-2023 07:26:23 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-A-1-A Lab Sample ID: 280-181950-1
Client ID: FWGmw-010-230901-GW
Operator ID: JZ/JG ALS Bottle#: 54 Worklist Smp#: 54
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.44
Response: 786482
Amount: 3.486717



Reviewer: K8YG, 09-Oct-2023 11:12:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: LL1mw-064-230901-GW | Lab Sample ID: 280-181950-2

Matrix: Water | Lab File ID: 10070055.D

Analysis Method: 8330B | Date Collected: 09/25/2023 12:16

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 487(mL) | Date Analyzed: 10/08/2023 07:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.92	U Q	1.0	0.92	0.45
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.92	U Q	1.0	0.92	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
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 Q	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.51	0.26	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.090
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.093
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
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.51	0.26	0.081

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\20231007-126276.b\10070055.D
Lims ID: 280-181950-A-2-A
Client ID: LL1mw-064-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 07:49:16 ALS Bottle#: 55 Worklist Smp#: 55
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:14 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:13:08

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1		6.438			ND	
3	TNX	1		6.450			ND	
4	HMX	1		6.570			ND	U
5	2,4-diamino-6-nitrotoluene	1		6.625			ND	
6	DNX	1		6.776			ND	
7	MNX	1	7.208	7.196	0.012	1952	0.0141	M
8	RDX	1	7.602	7.576	0.026	2646	0.0239	M
$ 10	1,2-Dinitrobenzene	1	8.522	8.516	0.006	23213	0.1873	M
11	1,3,5-Trinitrobenzene	1		8.643			ND	
12	1,3-Dinitrobenzene	1		9.250			ND	U
13	Nitrobenzene	1		9.616			ND	7
14	3,5-Dinitroaniline	1		9.830			ND	
15	Tetryl	1		9.956			ND	
16	Nitroglycerin	2		10.410			ND	
17	2,4,6-Trinitrotoluene	1		10.843			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20	2,6-Dinitrotoluene	1		11.423			ND	
21	2,4-Dinitrotoluene	1		11.590			ND	
22	o-Nitrotoluene	1		12.390			ND	7
23	p-Nitrotoluene	1		12.796			ND	
24	m-Nitrotoluene	1		13.356			ND	
25	PETN	2		14.470			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

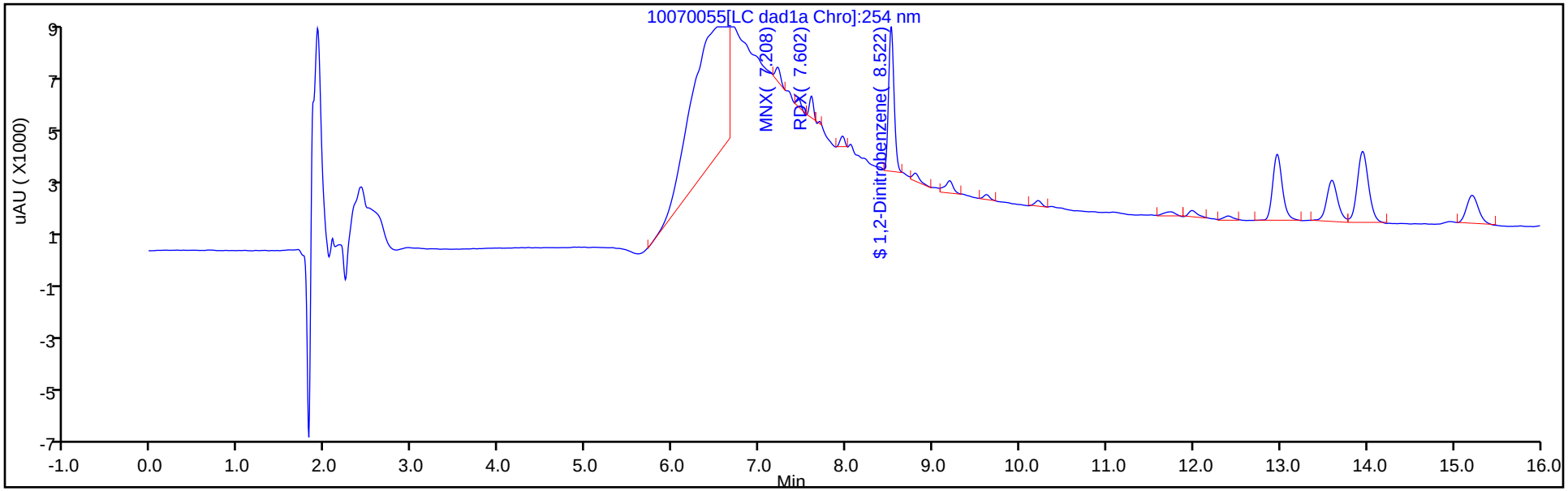
Report Date: 09-Oct-2023 11:17:20 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

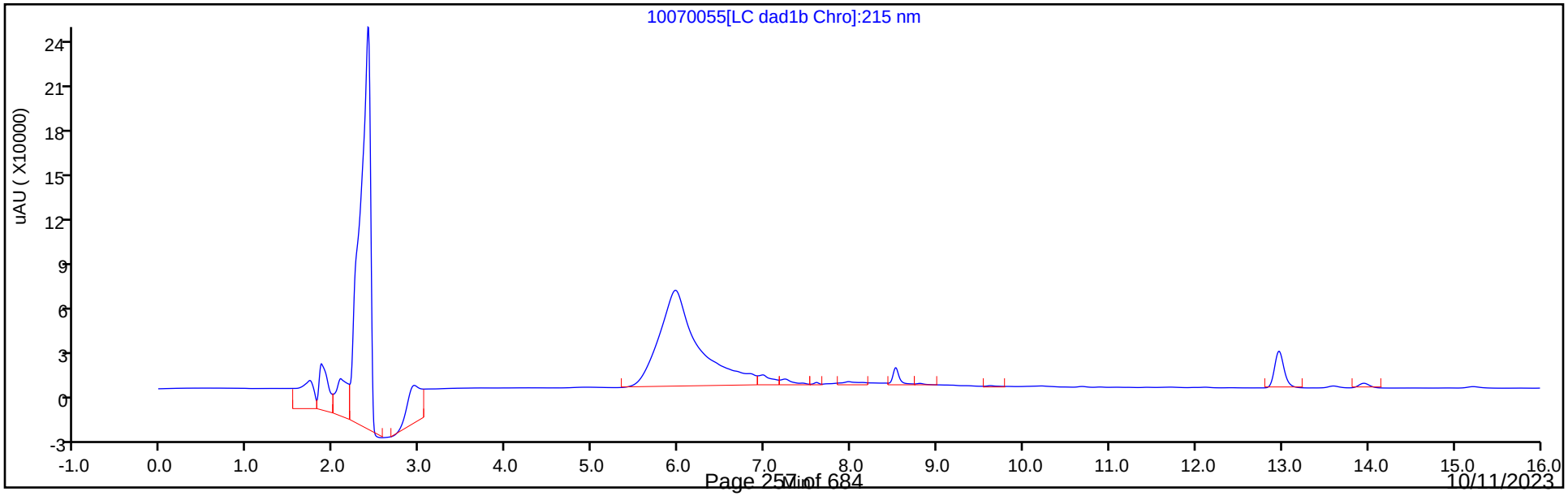
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070055.d

Injection Date:	08-Oct-2023 07:49:16	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2	Worklist Smp#:	55
Client ID:	LL1mw-064-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	55
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\20231007-126276.b\10070055.D				
Lims ID:	280-181950-A-2-A				
Client ID:	LL1mw-064-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 07:49:16	ALS Bottle#:	55	Worklist Smp#:	55
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-A-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:14	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 11:13:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1873	93.67

Manual Integration/User Assign Peak Report

Eurofins Denver

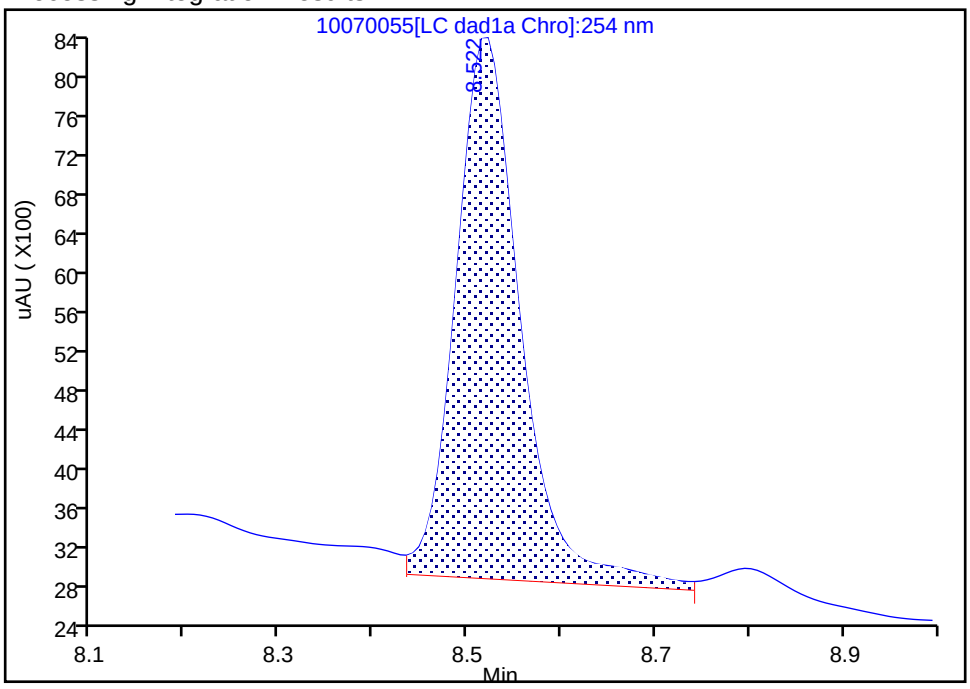
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Injection Date:	08-Oct-2023 07:49:16	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	55	Worklist Smp#:	55
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

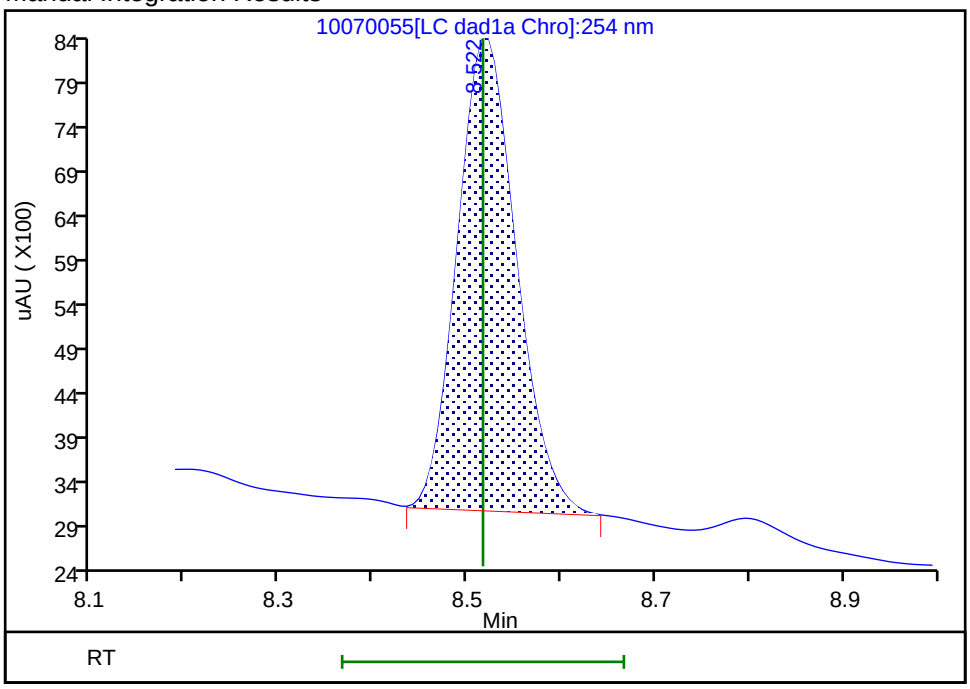
Processing Integration Results

RT: 8.52
Area: 26600
Amount: 0.214670
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 23213
Amount: 0.187336
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:12:34 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

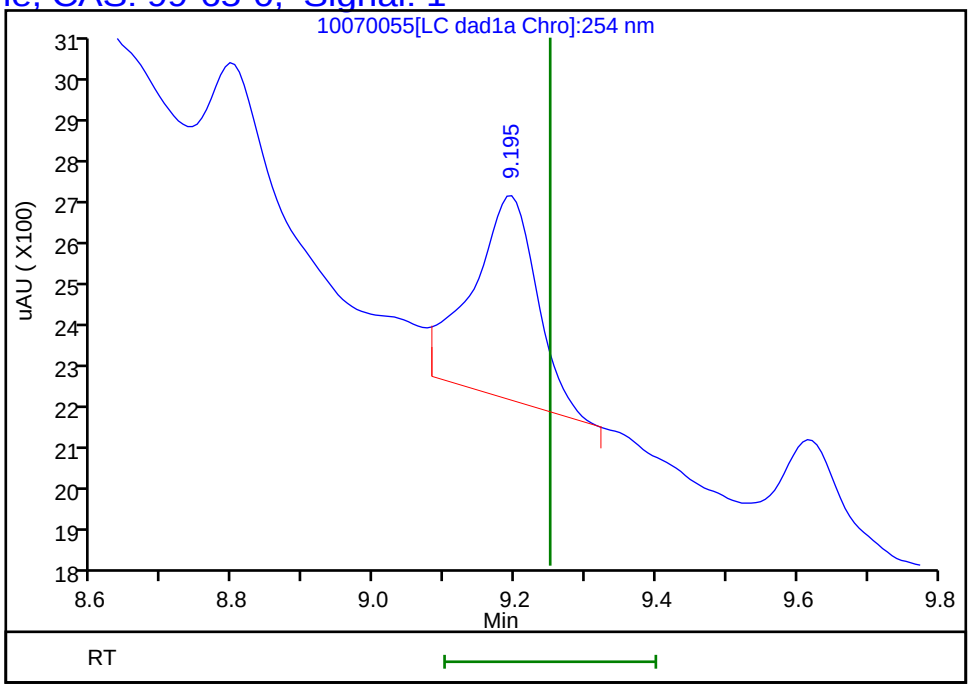
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070055.d
Injection Date: 08-Oct-2023 07:49:16 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-A-2-A Lab Sample ID: 280-181950-2
Client ID: LL1mw-064-230901-GW
Operator ID: JZ/JG ALS Bottle#: 55 Worklist Smp#: 55
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: 9.20
Response: 2753
Amount: 0.009385



Reviewer: K8YG, 09-Oct-2023 11:13:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

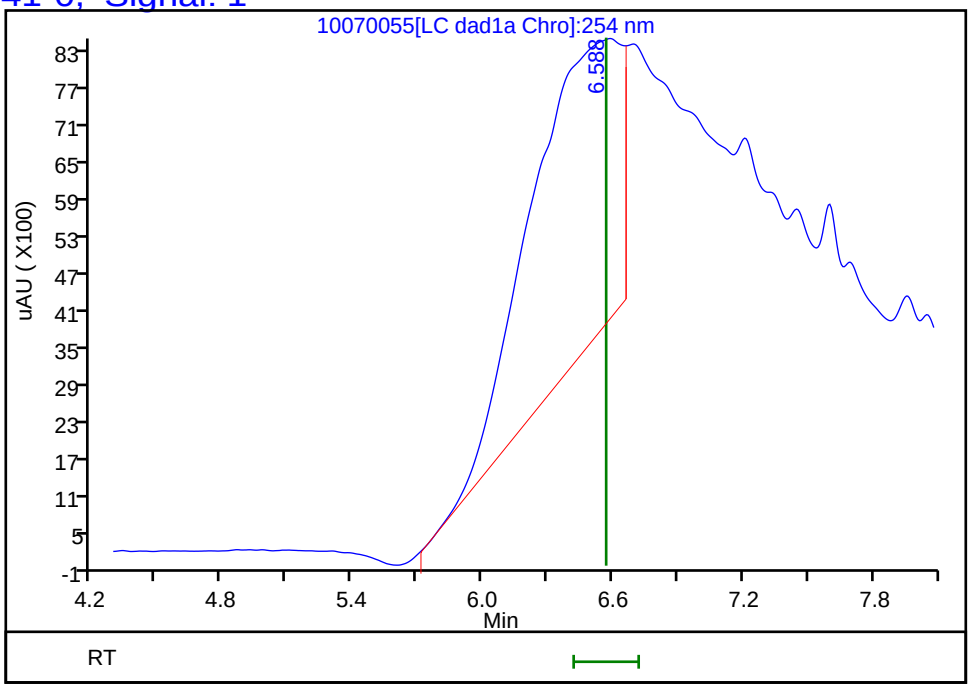
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070055.d
Injection Date: 08-Oct-2023 07:49:16 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-A-2-A Lab Sample ID: 280-181950-2
Client ID: LL1mw-064-230901-GW
Operator ID: JZ/JG ALS Bottle#: 55 Worklist Smp#: 55
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
Response: 146057
Amount: 1.549588



Reviewer: K8YG, 09-Oct-2023 11:13:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

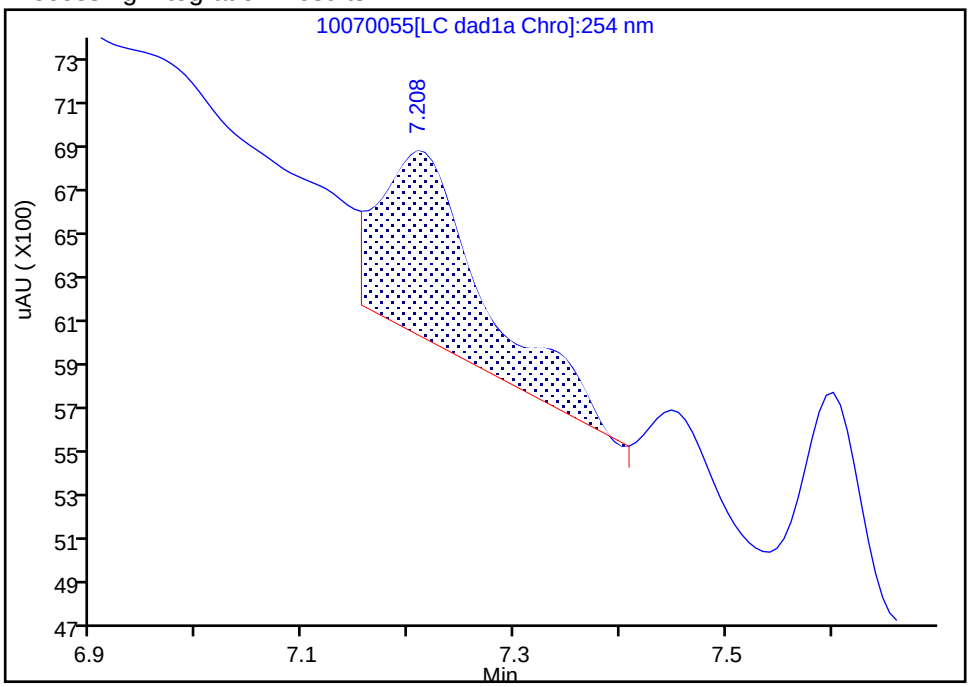
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Injection Date:	08-Oct-2023 07:49:16	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	55	Worklist Smp#:	55
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

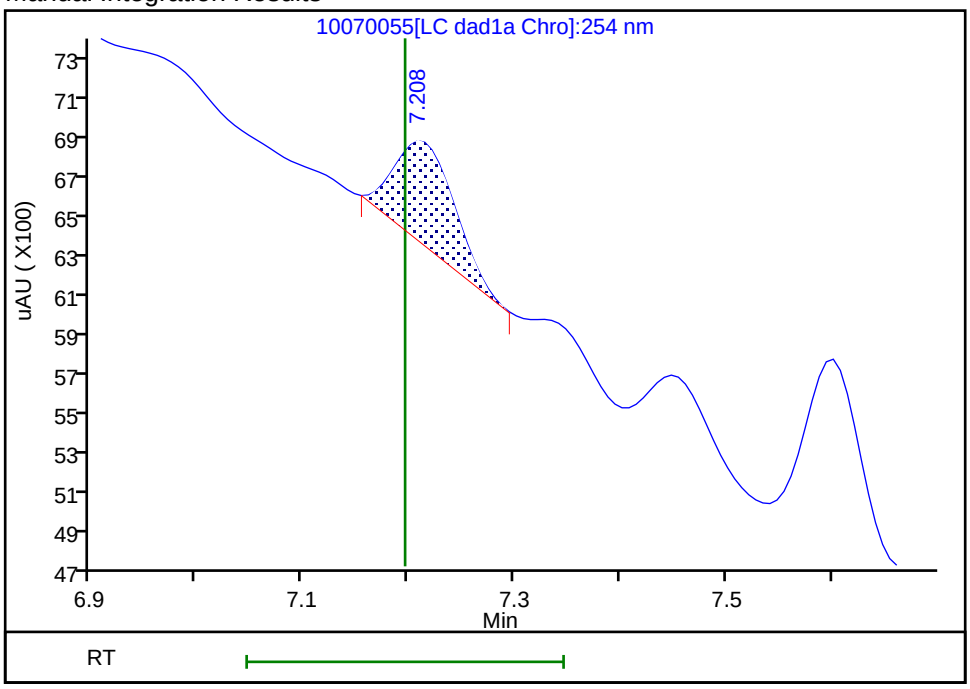
Processing Integration Results

RT: 7.21
Area: 5630
Amount: 0.040595
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 1952
Amount: 0.014075
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:12:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

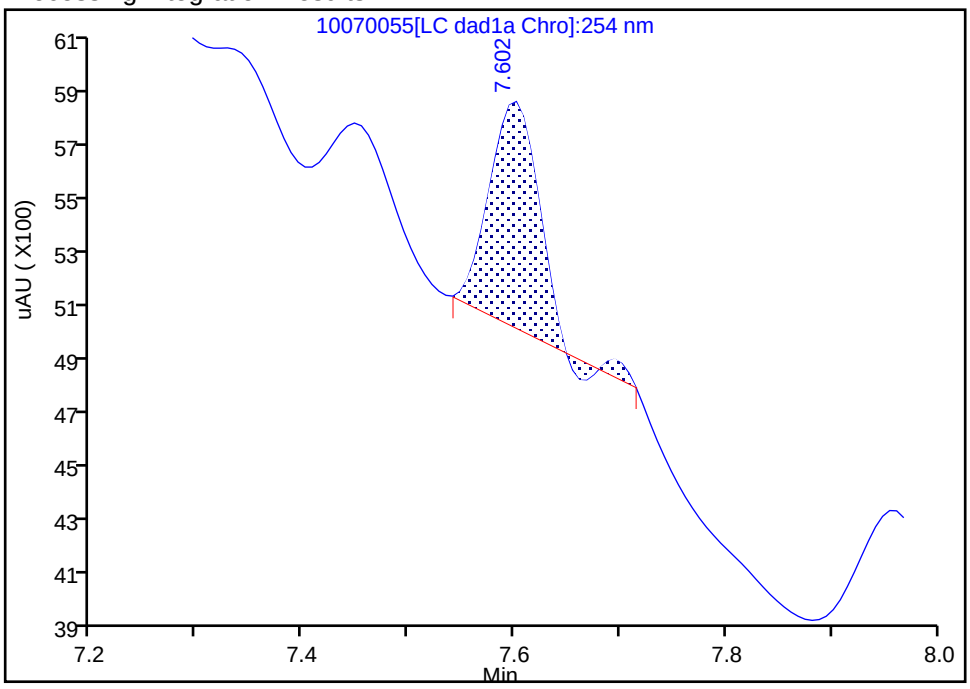
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Injection Date:	08-Oct-2023 07:49:16	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	55	Worklist Smp#:	55
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

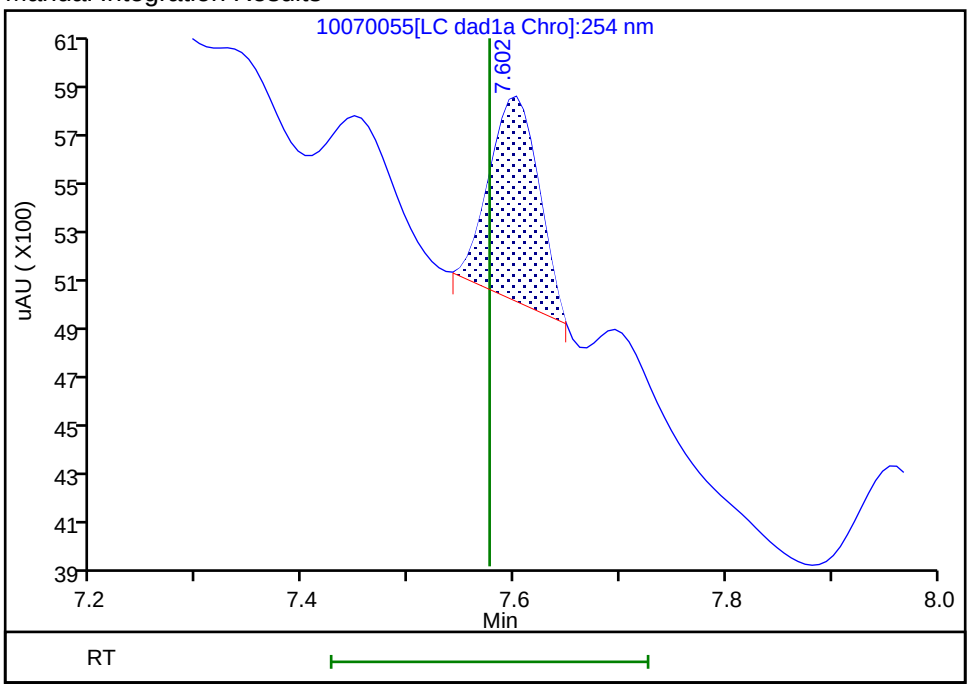
Processing Integration Results

RT: 7.60
Area: 2925
Amount: 0.026472
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 2646
Amount: 0.023947
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:13:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: LL1mw-064-230901-GW | Lab Sample ID: 280-181950-2

Matrix: Water | Lab File ID: 10090039.D

Analysis Method: 8330B | Date Collected: 09/25/2023 12:16

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 487(mL) | Date Analyzed: 10/10/2023 09:27

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.: 629022 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	0.30	U	0.51	0.30	0.095
121-82-4	RDX	0.21	U M	0.22	0.21	0.053

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D
Lims ID: 280-181950-A-2-A
Client ID: LL1mw-064-230901-GW
Sample Type: Client
Inject. Date: 10-Oct-2023 09:27:08 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:47 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 12:24:28

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1		4.237			ND	
2	2,4-diamino-6-nitrotoluene	1		4.864			ND	
3	TNX	1		5.310			ND	
4	DNX	1		6.190			ND	
5	HMX	1		6.864			ND	
6	MNX	1		7.730			ND	
8	RDX	1		9.157			ND	U
9	Nitrobenzene	1		11.750			ND	7
$ 10	1,2-Dinitrobenzene	1	12.749	12.743	0.006	47059	0.1764	
11	3,5-Dinitroaniline	1		14.597			ND	
12	1,3-Dinitrobenzene	1		14.857			ND	U
13	Nitroglycerin	2		15.423			ND	
14	o-Nitrotoluene	1		16.017			ND	U
16	p-Nitrotoluene	1		16.243			ND	
17	4-Amino-2,6-dinitrotoluene	1		16.777			ND	U
18	m-Nitrotoluene	1		17.103			ND	
19	2-Amino-4,6-dinitrotoluene	1		17.630			ND	U
20	1,3,5-Trinitrobenzene	1		17.663			ND	
21	2,6-Dinitrotoluene	1	18.989	18.923	0.066	7483	0.0273	
22	2,4-Dinitrotoluene	1		19.377			ND	
23	Tetryl	1		22.744			ND	
24	2,4,6-Trinitrotoluene	1		23.557			ND	
25	PETN	2		24.864			ND	U

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

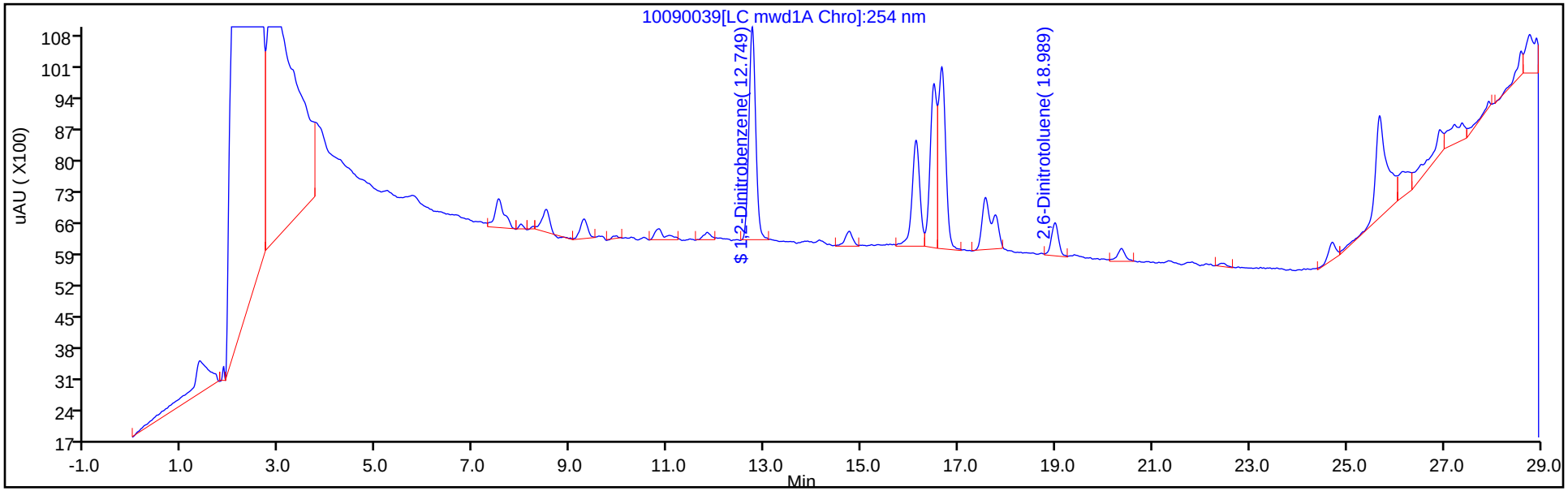
Report Date: 10-Oct-2023 15:18:48 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

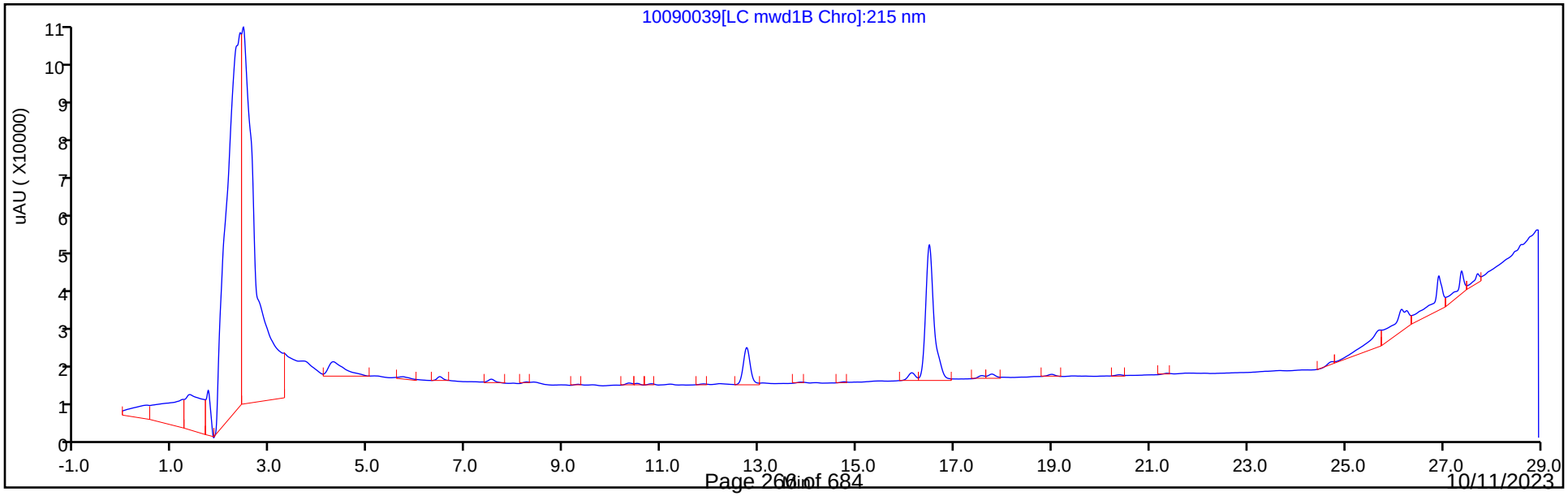
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D

Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2	Worklist Smp#:	39
Client ID:	LL1mw-064-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	39
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\20231009-126323.b\10090039.D				
Lims ID:	280-181950-A-2-A				
Client ID:	LL1mw-064-230901-GW				
Sample Type:	Client				
Inject. Date:	10-Oct-2023 09:27:08	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-A-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	10-Oct-2023 15:18:47	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1622				

First Level Reviewer: K8YG Date: 10-Oct-2023 12:24:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1764	88.21

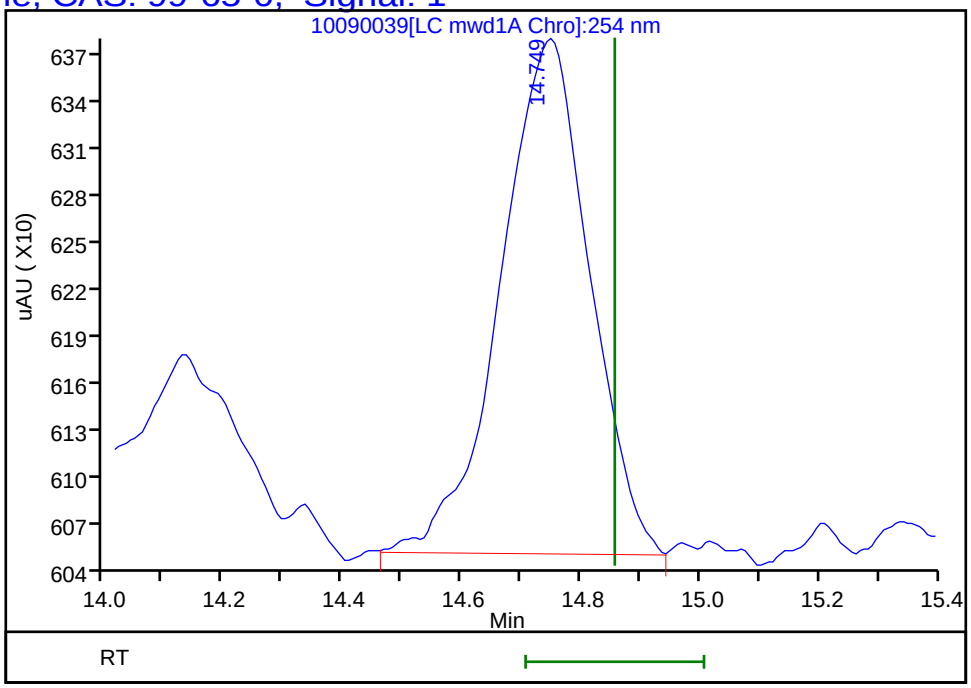
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D				
Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
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: 14.75
Response: 3325
Amount: 0.005679



Reviewer: K8YG, 10-Oct-2023 15:17:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

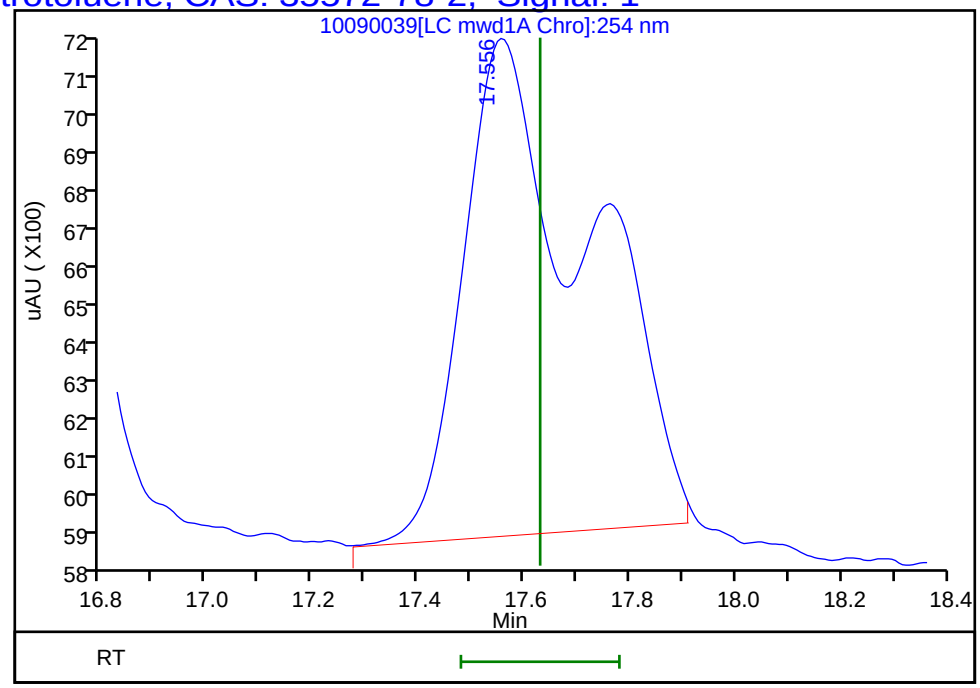
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D				
Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
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: 17.56
Response: 19422
Amount: 0.049568



Reviewer: K8YG, 10-Oct-2023 15:17:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

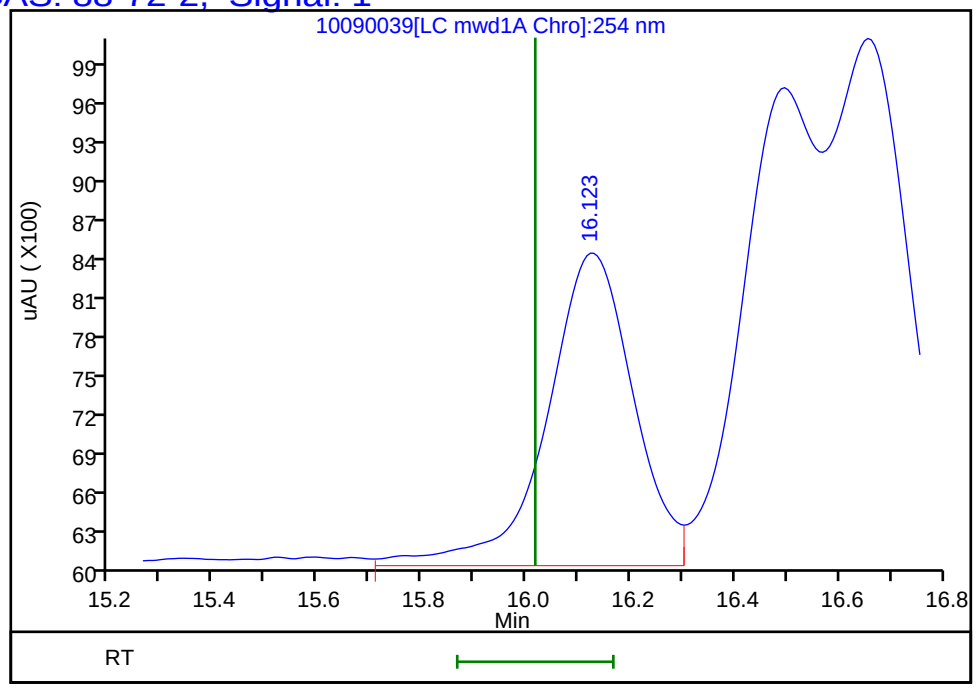
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D				
Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
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: 16.12
Response: 27670
Amount: 0.116458



Reviewer: K8YG, 10-Oct-2023 15:17:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

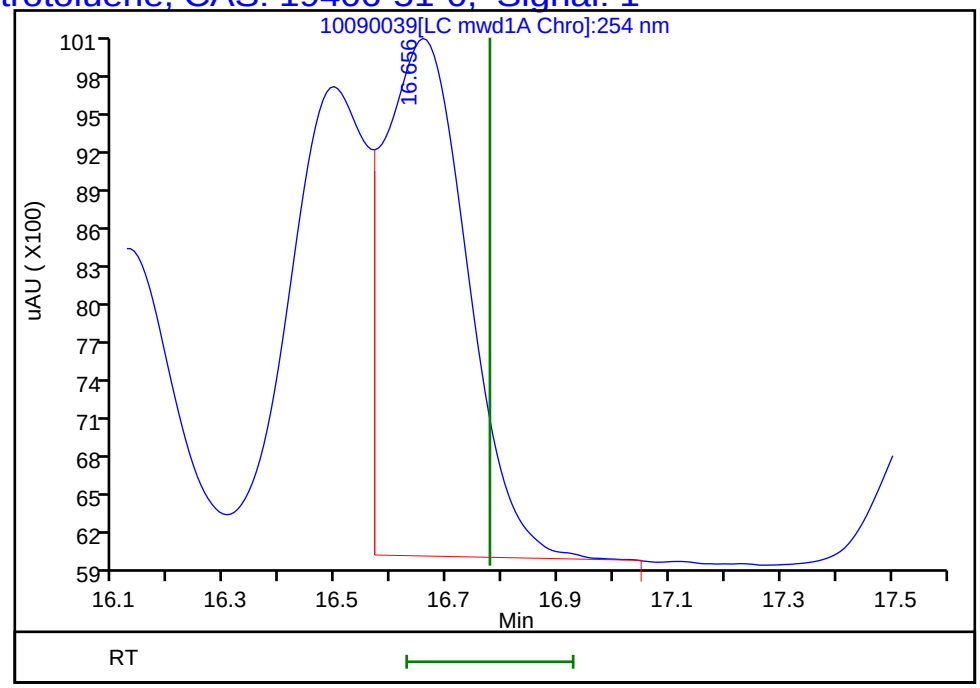
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D				
Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
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: 16.66
Response: 42080
Amount: 0.154686



Reviewer: K8YG, 10-Oct-2023 15:17:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

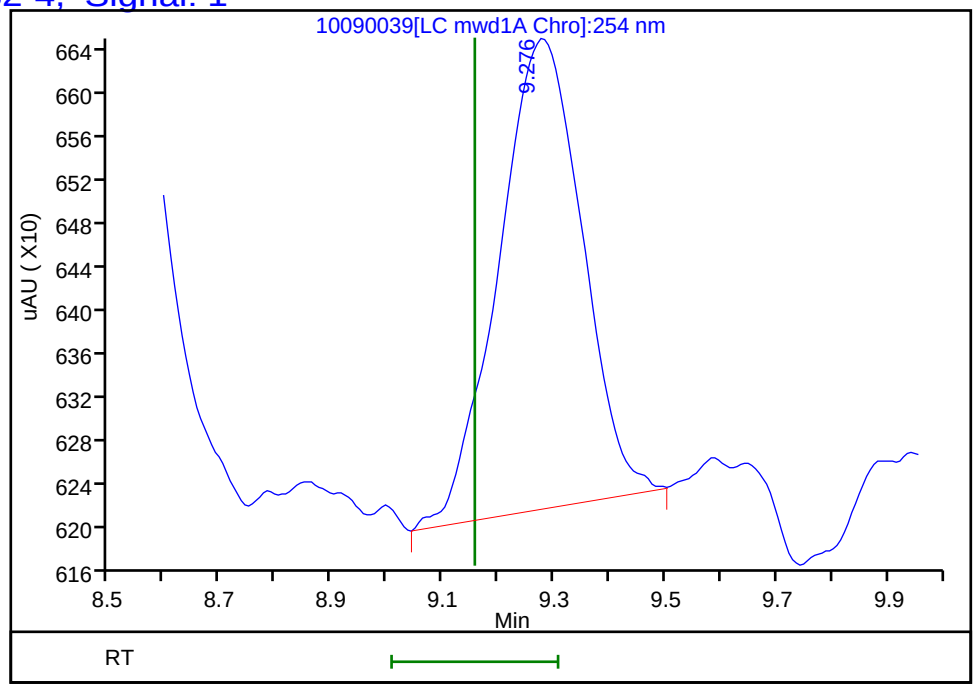
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090039.D				
Injection Date:	10-Oct-2023 09:27:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-A-2-A	Lab Sample ID:	280-181950-2		
Client ID:	LL1mw-064-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
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: 9.28
Response: 4495
Amount: 0.020387



Reviewer: K8YG, 10-Oct-2023 15:17:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: FWGmw-011-230901-GW | Lab Sample ID: 280-181950-3

Matrix: Water | Lab File ID: 10070056.D

Analysis Method: 8330B | Date Collected: 09/25/2023 13:00

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 476.3(mL) | Date Analyzed: 10/08/2023 08:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

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	0.12	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	0.090
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 Q	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U Q	0.43	0.42	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.096
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	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	88		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070056.D
Lims ID: 280-181950-A-3-A
Client ID: FWGmw-011-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 08:12:12 ALS Bottle#: 56 Worklist Smp#: 56
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-A-3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:14 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.570			ND	
8 RDX	1		7.576			ND	
$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	21905	0.1768	
11 1,3,5-Trinitrobenzene	1		8.643			ND	
12 1,3-Dinitrobenzene	1		9.250			ND	
13 Nitrobenzene	1		9.616			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.410			ND	
17 2,4,6-Trinitrotoluene	1		10.843			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.423			ND	
21 2,4-Dinitrotoluene	1		11.590			ND	
22 o-Nitrotoluene	1		12.390			ND	
23 p-Nitrotoluene	1		12.796			ND	7
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.470			ND	

QC Flag Legend

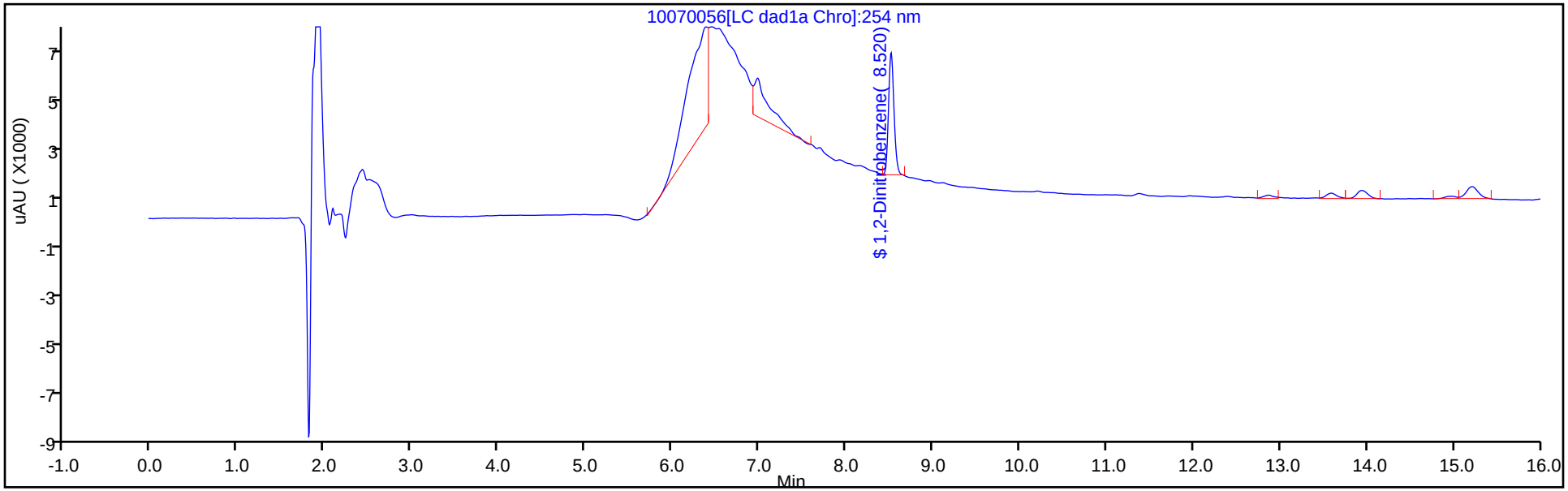
Processing Flags
7 - Failed Limit of Detection

Report Date: 09-Oct-2023 11:17:21 Chrom Revision: 2.3 22-Sep-2023 11:33:50

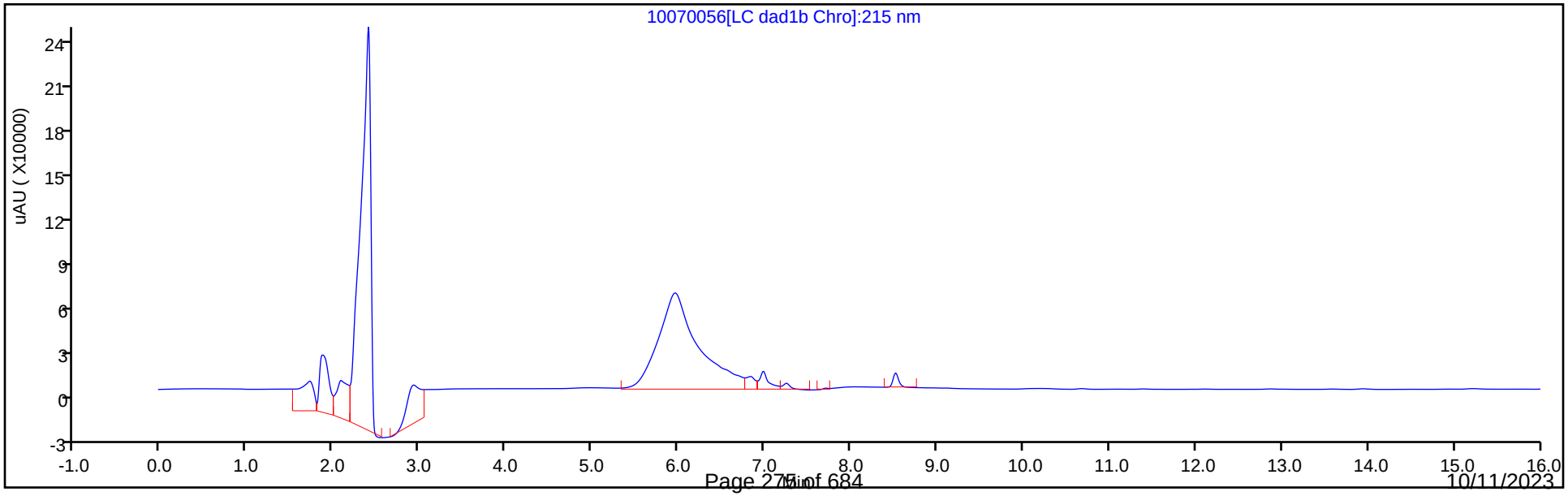
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070056.d				
Injection Date:	08-Oct-2023 08:12:12	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-A-3-A	Lab Sample ID:	280-181950-3	Worklist Smp#:	56
Client ID:	FWGmw-011-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	56
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\20231007-126276.b\10070056.D				
Lims ID:	280-181950-A-3-A				
Client ID:	FWGmw-011-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 08:12:12	ALS Bottle#:	56	Worklist Smp#:	56
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-A-3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:14	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:10

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1768	88.39

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: LL1mw-089-230901-GW | Lab Sample ID: 280-181950-4

Matrix: Water | Lab File ID: 10070059.D

Analysis Method: 8330B | Date Collected: 09/25/2023 13:26

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 490.9(mL) | Date Analyzed: 10/08/2023 09:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.086
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	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.92	U Q	1.0	0.92	0.44
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.92	U M Q	1.0	0.92	0.23
606-20-2	2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.087
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13
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 Q	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10
80251-29-2	DNX	0.25	U	0.51	0.25	0.099
2691-41-0	HMX	0.20	U	0.21	0.20	0.089
5755-27-1	MNX	0.30	U	0.51	0.30	0.095
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.093
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.94
78-11-5	PETN	1.0	U	1.1	1.0	0.46
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
13980-04-6	TNX	0.25	U	0.51	0.25	0.081

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070059.D
Lims ID: 280-181950-B-4-A
Client ID: LL1mw-089-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 09:21:00 ALS Bottle#: 59 Worklist Smp#: 59
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-B-4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:22 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:19

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1		6.438			ND	U
3	TNX	1		6.450			ND	
4	HMX	1		6.570			ND	
5	2,4-diamino-6-nitrotoluene	1		6.625			ND	
6	DNX	1		6.776			ND	
7	MNX	1		7.196			ND	
8	RDX	1		7.576			ND	
$ 10	1,2-Dinitrobenzene	1	8.520	8.516	0.004	22790	0.1839	M
11	1,3,5-Trinitrobenzene	1		8.643			ND	
12	1,3-Dinitrobenzene	1		9.250			ND	
13	Nitrobenzene	1		9.616			ND	
14	3,5-Dinitroaniline	1		9.830			ND	
15	Tetryl	1		9.956			ND	
16	Nitroglycerin	2		10.410			ND	
17	2,4,6-Trinitrotoluene	1		10.843			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20	2,6-Dinitrotoluene	1		11.423			ND	
21	2,4-Dinitrotoluene	1		11.590			ND	
22	o-Nitrotoluene	1		12.390			ND	
23	p-Nitrotoluene	1		12.796			ND	
24	m-Nitrotoluene	1		13.356			ND	
25	PETN	2		14.470			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

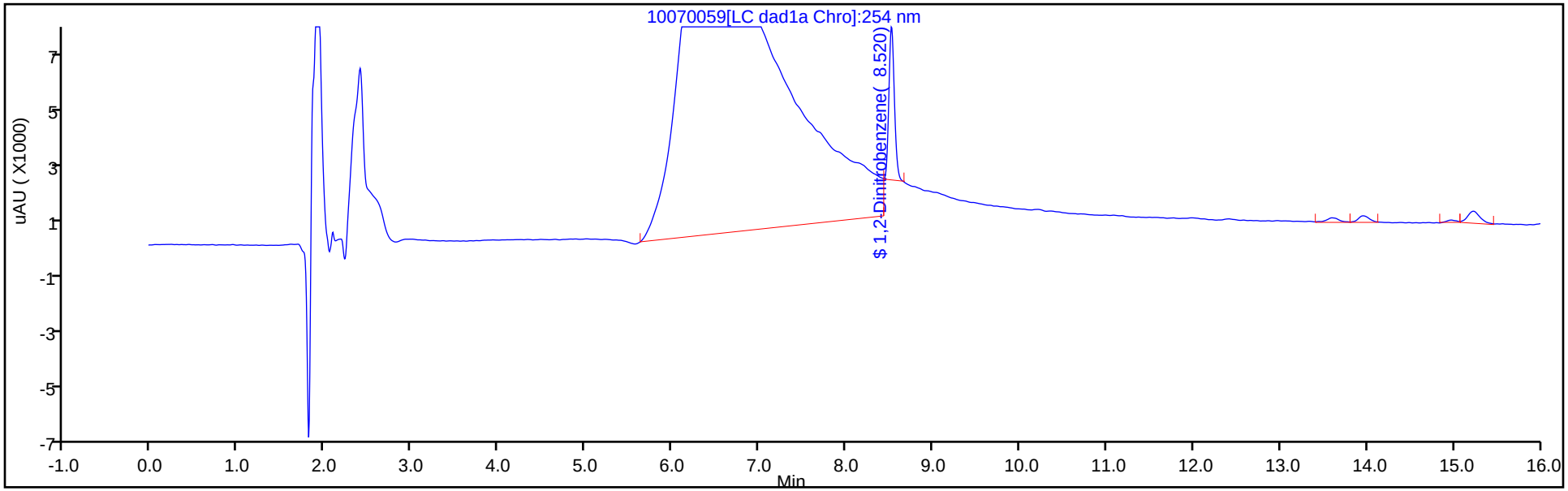
Report Date: 09-Oct-2023 11:17:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

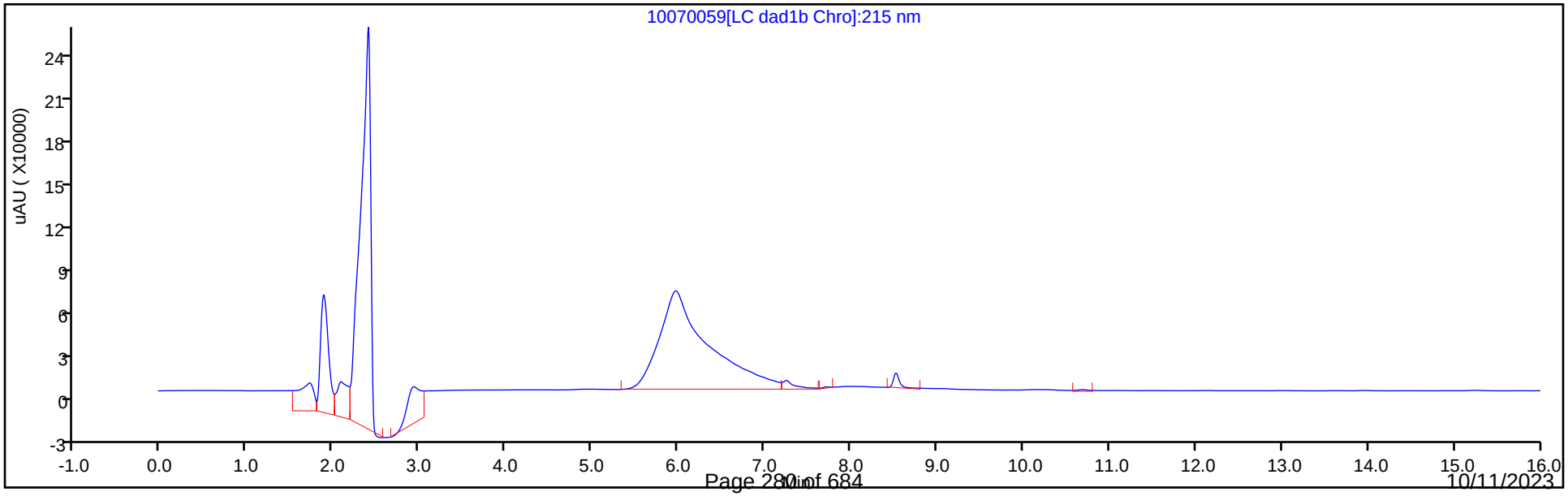
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070059.d

Injection Date:	08-Oct-2023 09:21:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-B-4-A	Lab Sample ID:	280-181950-4	Worklist Smp#:	59
Client ID:	LL1mw-089-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	59
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\20231007-126276.b\10070059.D				
Lims ID:	280-181950-B-4-A				
Client ID:	LL1mw-089-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 09:21:00	ALS Bottle#:	59	Worklist Smp#:	59
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-B-4-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:22	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1839	91.96

Manual Integration/User Assign Peak Report

Eurofins Denver

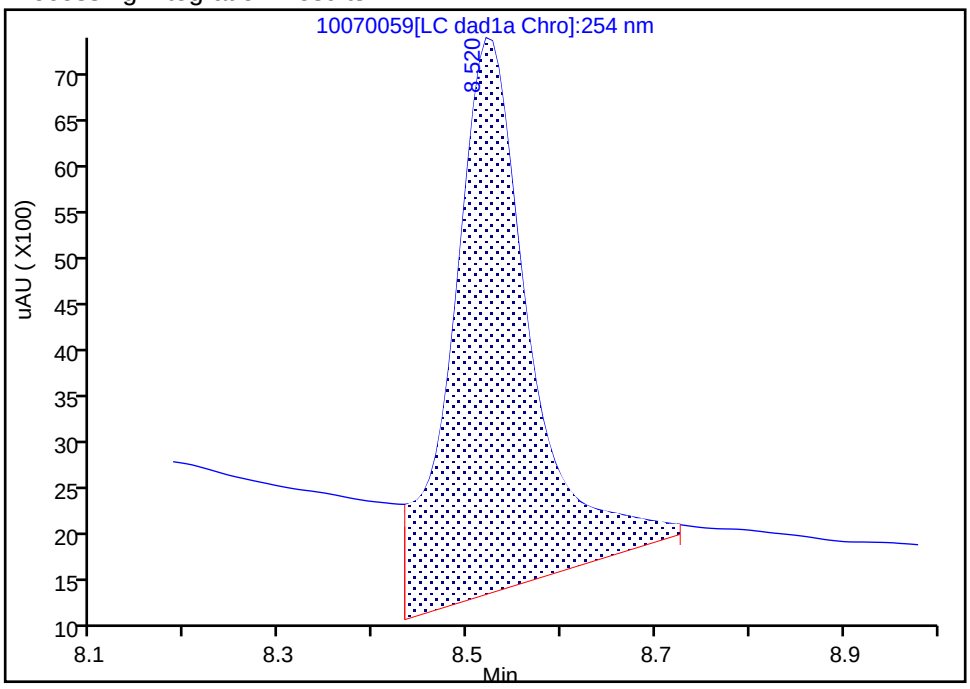
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070059.d				
Injection Date:	08-Oct-2023 09:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-B-4-A	Lab Sample ID:	280-181950-4		
Client ID:	LL1mw-089-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	59	Worklist Smp#:	59
Injection Vol:	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

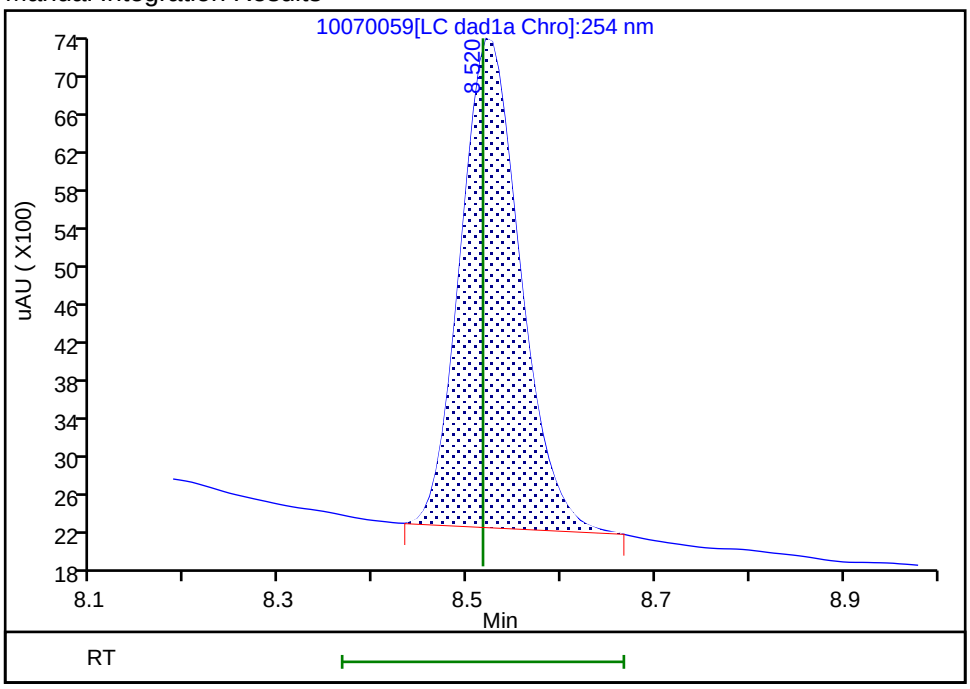
Processing Integration Results

RT: 8.52
Area: 35254
Amount: 0.284511
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 22790
Amount: 0.183923
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

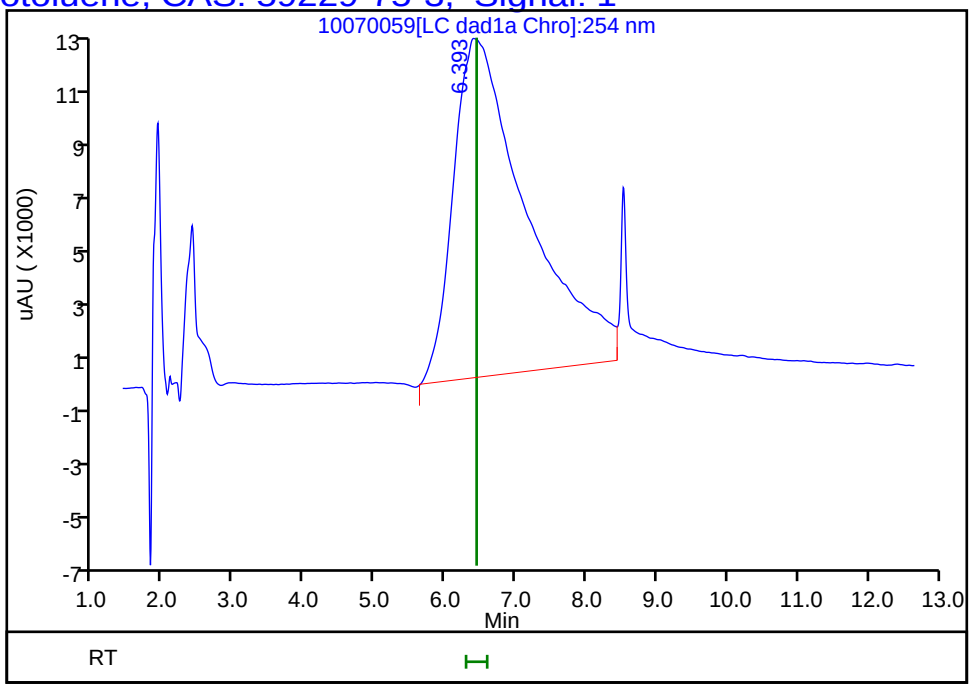
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070059.d
Injection Date: 08-Oct-2023 09:21:00 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-4-A Lab Sample ID: 280-181950-4
Client ID: LL1mw-089-230901-GW
Operator ID: JZ/JG ALS Bottle#: 59 Worklist Smp#: 59
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.39
Response: 901710
Amount: 3.997558



Reviewer: K8YG, 09-Oct-2023 11:14:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: LL1mw-089-230902-GW | Lab Sample ID: 280-181950-5

Matrix: Water | Lab File ID: 10070060.D

Analysis Method: 8330B | Date Collected: 09/25/2023 13:26

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 492.3(mL) | Date Analyzed: 10/08/2023 09:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.085
99-65-0	1,3-Dinitrobenzene	0.10	U M Q	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.91	U Q	1.0	0.91	0.44
121-14-2	2,4-Dinitrotoluene	0.081	U Q	0.10	0.081	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.91	U Q	1.0	0.91	0.22
606-20-2	2,6-Dinitrotoluene	0.081	U Q	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.051
618-87-1	3,5-Dinitroaniline	0.30	U Q	0.41	0.30	0.13
99-08-1	3-Nitrotoluene	0.36	U Q	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10
80251-29-2	DNX	0.25	U Q	0.51	0.25	0.099
2691-41-0	HMX	0.20	U M Q	0.21	0.20	0.089
55-63-0	Nitroglycerin	2.0	U Q	2.1	2.0	0.94
78-11-5	PETN	1.0	U Q	1.1	1.0	0.45
479-45-8	Tetryl	0.10	U Q	0.11	0.10	0.032
13980-04-6	TNX	0.25	U Q	0.51	0.25	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	80	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070060.D
Lims ID: 280-181950-B-5-A
Client ID: LL1mw-089-230902-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 09:44:00 ALS Bottle#: 60 Worklist Smp#: 60
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-B-5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:22 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:14:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.438			ND	
3 TNX	1		6.450			ND	
4 HMX	1		6.570			ND	U
5 2,4-diamino-6-nitrotoluene	1		6.625			ND	
6 DNX	1		6.776			ND	
7 MNX	1	7.208	7.196	0.012	1560	0.0112	M
8 RDX	1	7.601	7.576	0.025	1074	0.009720	M
$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	19926	0.1608	M
11 1,3,5-Trinitrobenzene	1		8.643			ND	
12 1,3-Dinitrobenzene	1		9.250			ND	U
13 Nitrobenzene	1	9.621	9.616	0.005	2937	0.0152	
14 3,5-Dinitroaniline	1		9.830			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.410			ND	
17 2,4,6-Trinitrotoluene	1		10.843			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.423			ND	
21 2,4-Dinitrotoluene	1		11.590			ND	
22 o-Nitrotoluene	1	12.394	12.390	0.004	1121	0.008888	
23 p-Nitrotoluene	1		12.796			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.470			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

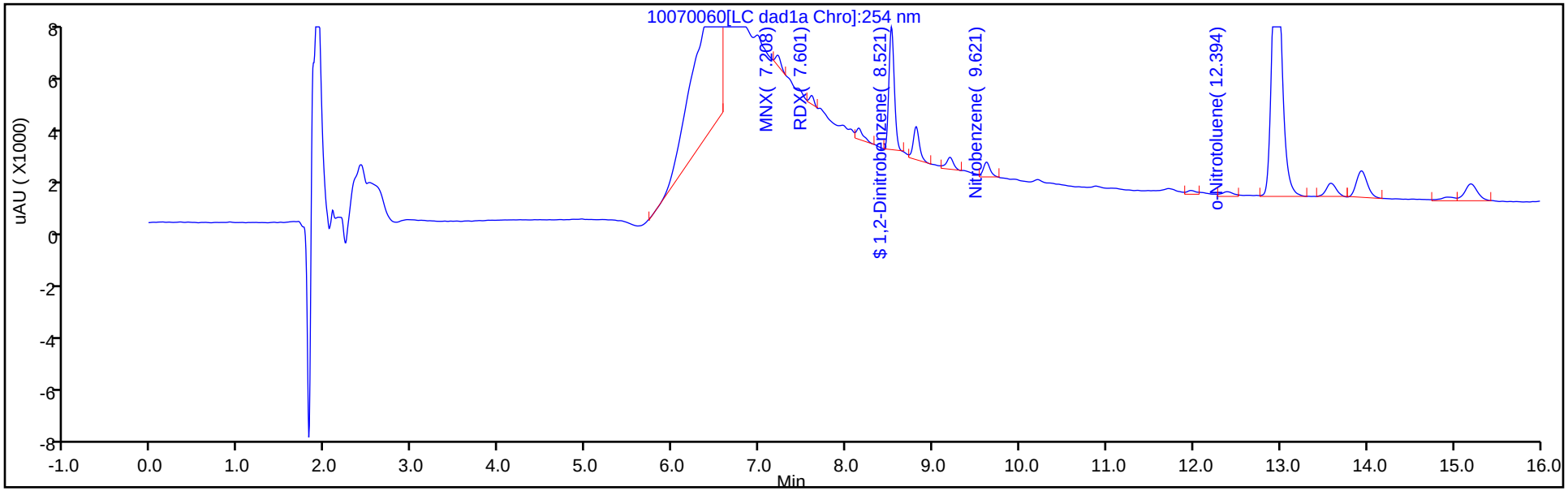
Report Date: 09-Oct-2023 11:17:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

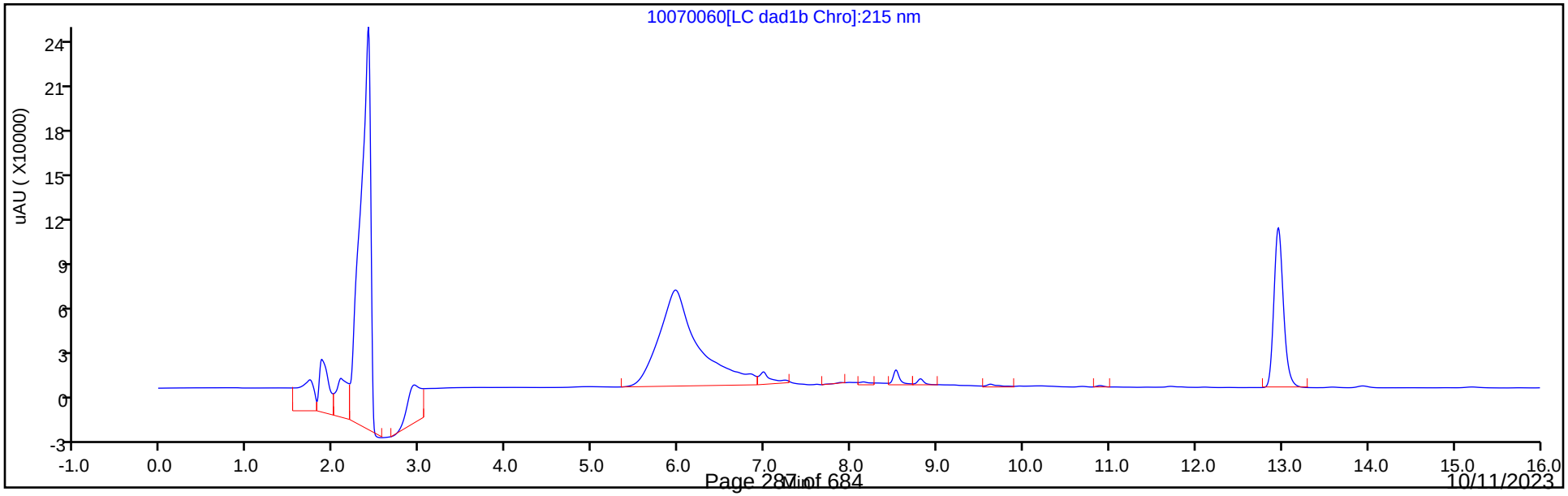
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070060.d

Injection Date:	08-Oct-2023 09:44:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5	Worklist Smp#:	60
Client ID:	LL1mw-089-230902-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	60
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



10/11/2023
10:32 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070060.D				
Lims ID:	280-181950-B-5-A				
Client ID:	LL1mw-089-230902-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 09:44:00	ALS Bottle#:	60	Worklist Smp#:	60
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-B-5-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:22	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 11:14:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1608	80.40

Manual Integration/User Assign Peak Report

Eurofins Denver

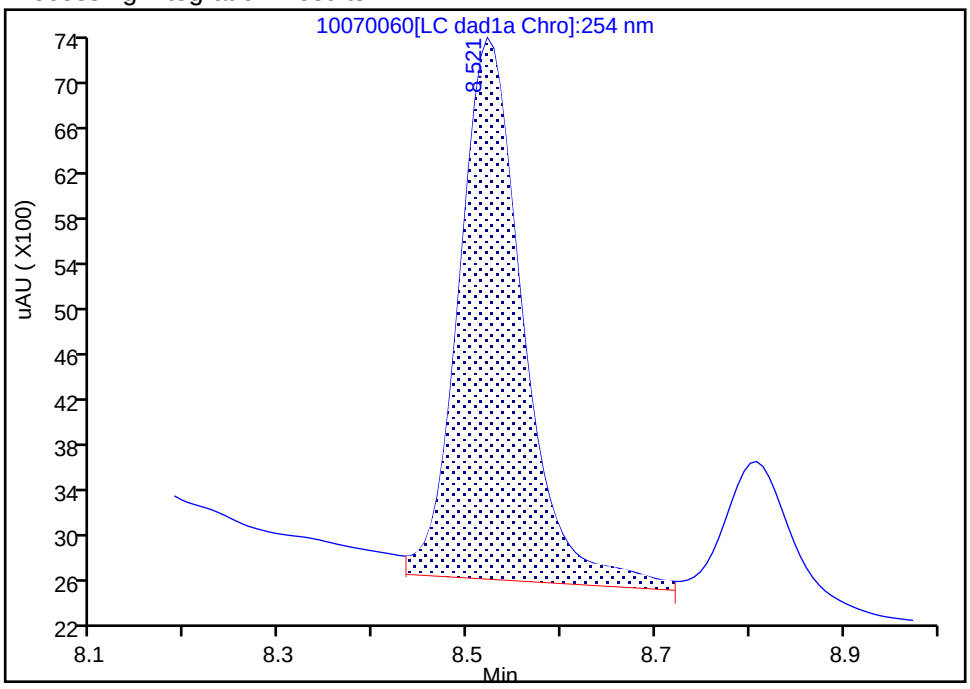
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Injection Date:	08-Oct-2023 09:44:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	60	Worklist Smp#:	60
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

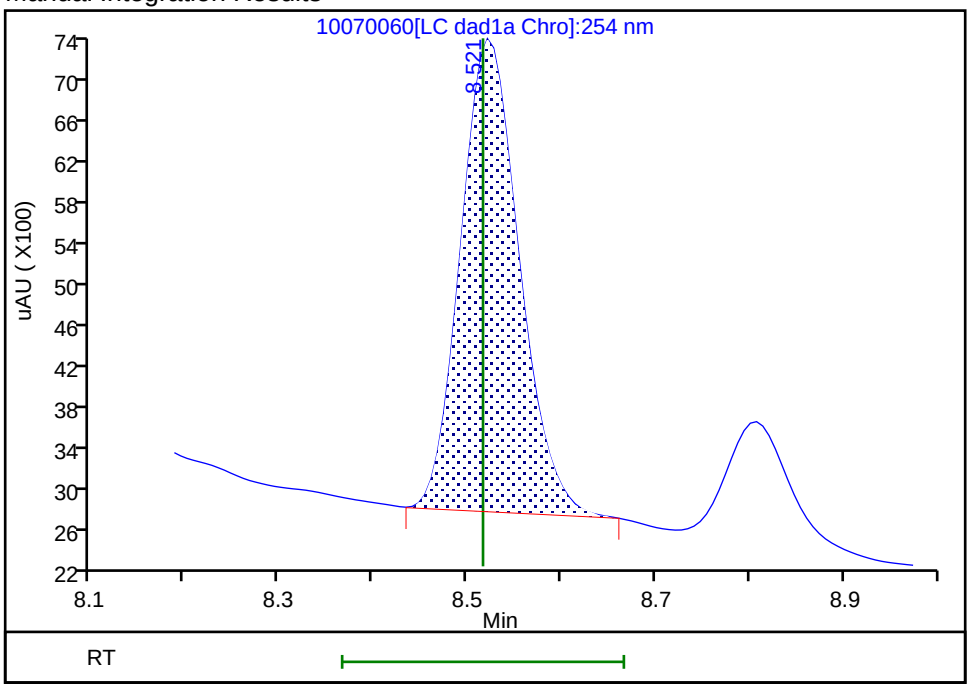
Processing Integration Results

RT: 8.52
Area: 22444
Amount: 0.181130
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 19926
Amount: 0.160809
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:47 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

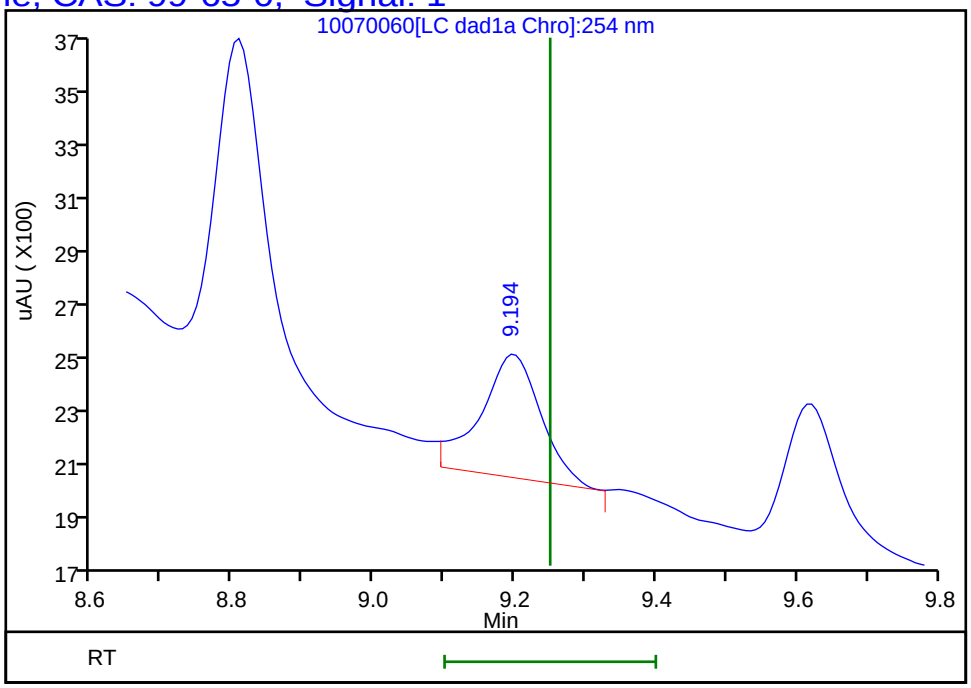
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070060.d
Injection Date: 08-Oct-2023 09:44:00 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-5-A Lab Sample ID: 280-181950-5
Client ID: LL1mw-089-230902-GW
Operator ID: JZ/JG ALS Bottle#: 60 Worklist Smp#: 60
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: 9.19
Response: 2619
Amount: 0.008928



Reviewer: K8YG, 09-Oct-2023 11:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

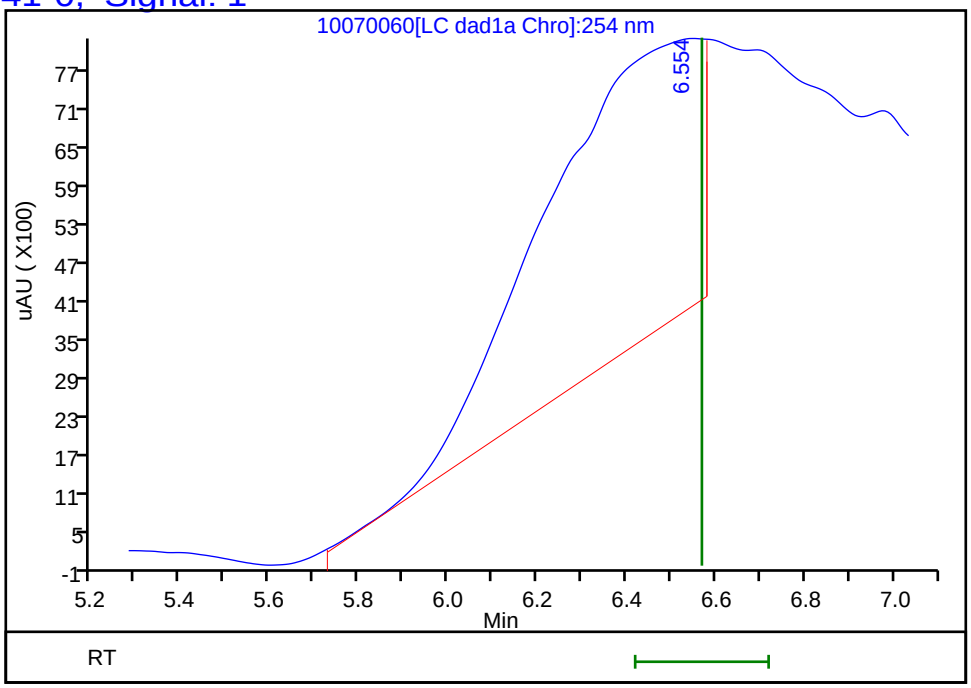
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070060.d
Injection Date: 08-Oct-2023 09:44:00 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-5-A Lab Sample ID: 280-181950-5
Client ID: LL1mw-089-230902-GW
Operator ID: JZ/JG ALS Bottle#: 60 Worklist Smp#: 60
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: 6.55
Response: 112271
Amount: 1.191137



Reviewer: K8YG, 09-Oct-2023 11:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

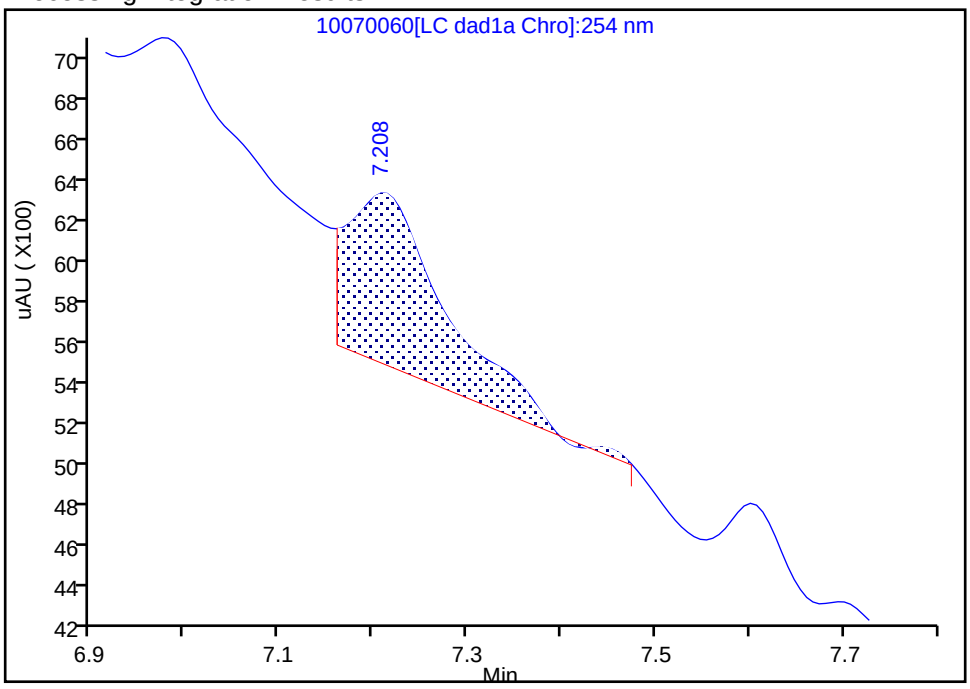
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Injection Date:	08-Oct-2023 09:44:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	60	Worklist Smp#:	60
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

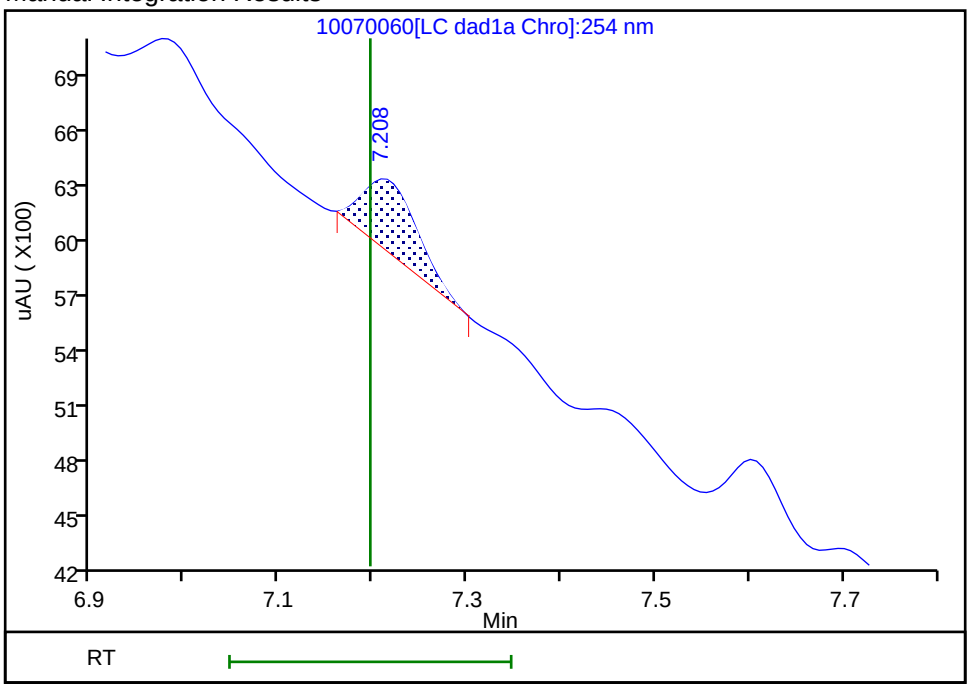
Processing Integration Results

RT: 7.21
Area: 6280
Amount: 0.045281
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 1560
Amount: 0.011248
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

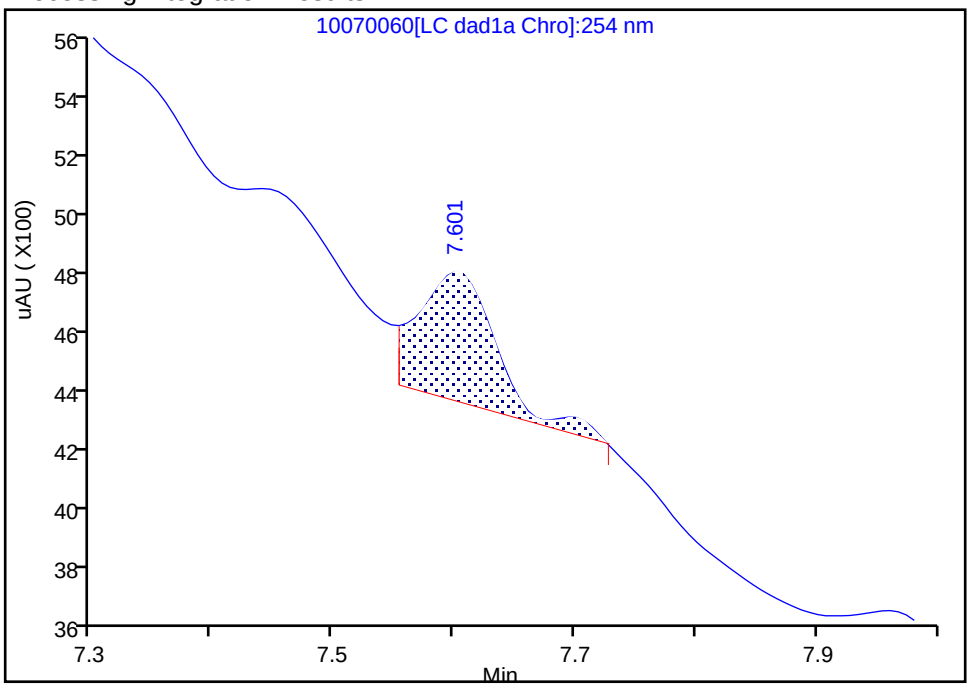
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Injection Date:	08-Oct-2023 09:44:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	60	Worklist Smp#:	60
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

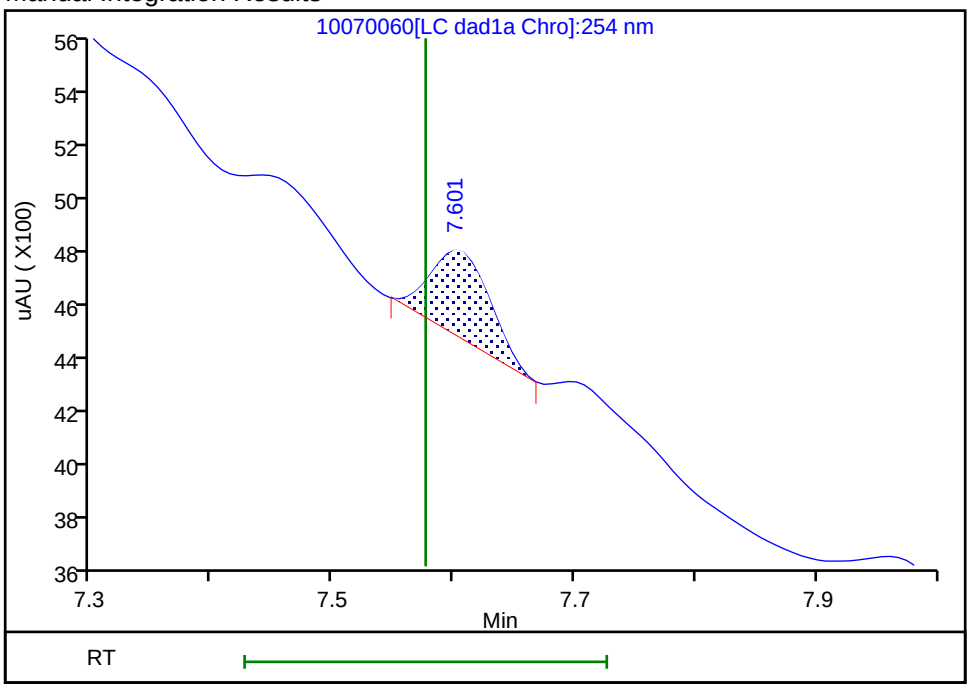
Processing Integration Results

RT: 7.60
Area: 1895
Amount: 0.017150
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 1074
Amount: 0.009720
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:38 -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.: 280-181950-1

SDG No.:

Client Sample ID: LL1mw-089-230902-GW | Lab Sample ID: 280-181950-5

Matrix: Water | Lab File ID: 10090040.D

Analysis Method: 8330B | Date Collected: 09/25/2023 13:26

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 492.3(mL) | Date Analyzed: 10/10/2023 10:02

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.: 629022 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.20	U Q M	0.21	0.20	0.087
5755-27-1	MNX	0.29	U Q	0.51	0.29	0.094
98-95-3	Nitrobenzene	0.20	U Q	0.21	0.20	0.092
121-82-4	RDX	0.20	U Q M	0.21	0.20	0.052

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	75	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090040.D
Lims ID: 280-181950-B-5-A
Client ID: LL1mw-089-230902-GW
Sample Type: Client
Inject. Date: 10-Oct-2023 10:02:06 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-B-5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:47 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 15:17:51

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1		4.237			ND	
2	2,4-diamino-6-nitrotoluene	1		4.864			ND	
3	TNX	1		5.310			ND	
4	DNX	1		6.190			ND	
5	HMX	1		6.864			ND	
6	MNX	1		7.730			ND	
8	RDX	1		9.157			ND	U
9	Nitrobenzene	1		11.750			ND	
$ 10	1,2-Dinitrobenzene	1	12.745	12.743	0.002	40171	0.1506	
11	3,5-Dinitroaniline	1		14.597			ND	
12	1,3-Dinitrobenzene	1		14.857			ND	7
13	Nitroglycerin	2		15.423			ND	
14	o-Nitrotoluene	1		16.017			ND	U
16	p-Nitrotoluene	1		16.243			ND	
17	4-Amino-2,6-dinitrotoluene	1		16.777			ND	
18	m-Nitrotoluene	1		17.103			ND	
19	2-Amino-4,6-dinitrotoluene	1		17.630			ND	U
20	1,3,5-Trinitrobenzene	1		17.663			ND	
21	2,6-Dinitrotoluene	1	18.972	18.923	0.049	5667	0.0207	
22	2,4-Dinitrotoluene	1		19.377			ND	
23	Tetryl	1		22.744			ND	
24	2,4,6-Trinitrotoluene	1		23.557			ND	
25	PETN	2		24.864			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

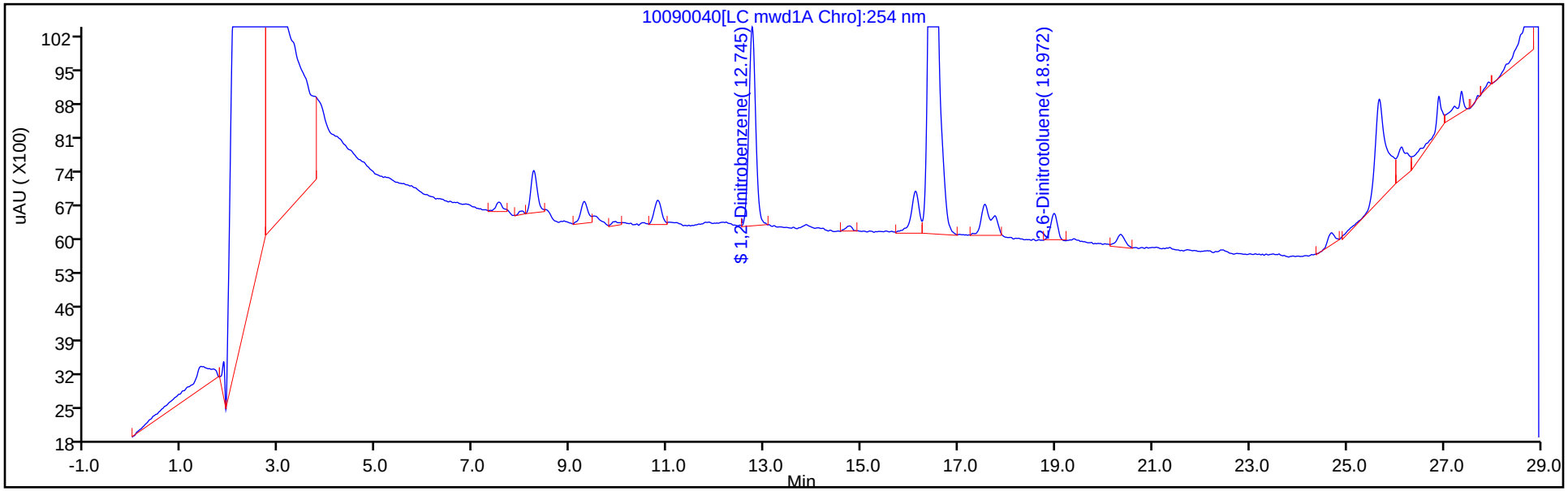
Report Date: 10-Oct-2023 15:18:49 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

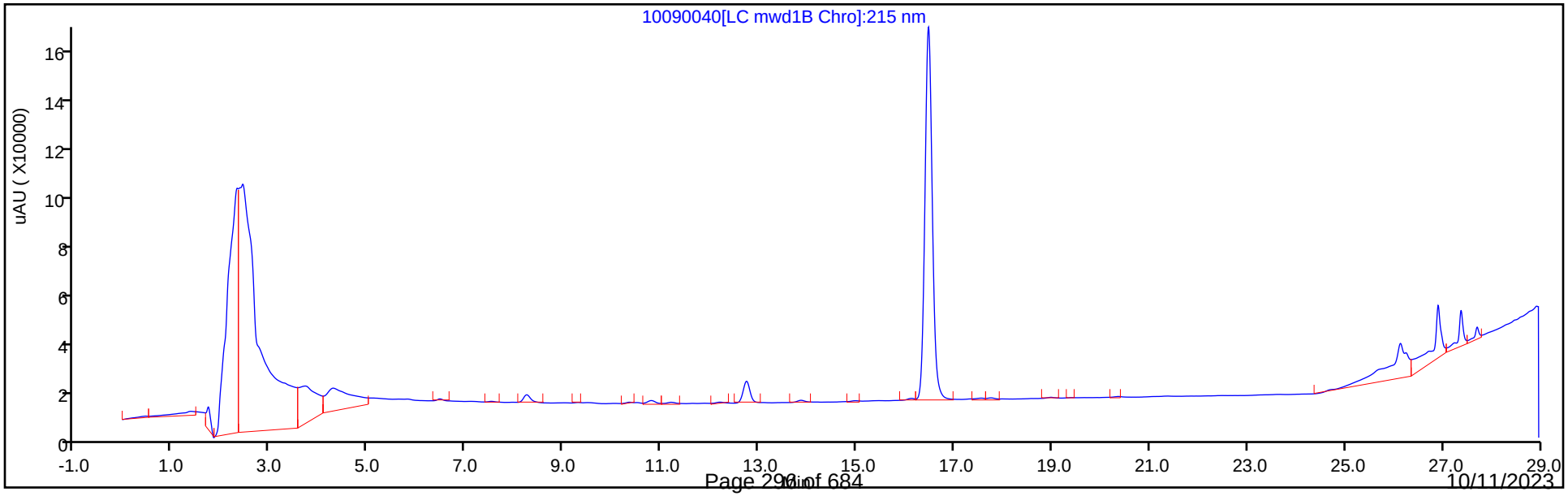
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090040.D

Injection Date:	10-Oct-2023 10:02:06	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5	Worklist Smp#:	40
Client ID:	LL1mw-089-230902-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
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\20231009-126323.b\10090040.D				
Lims ID:	280-181950-B-5-A				
Client ID:	LL1mw-089-230902-GW				
Sample Type:	Client				
Inject. Date:	10-Oct-2023 10:02:06	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-B-5-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	10-Oct-2023 15:18:47	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1622				

First Level Reviewer: K8YG Date: 10-Oct-2023 15:17:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1506	75.30

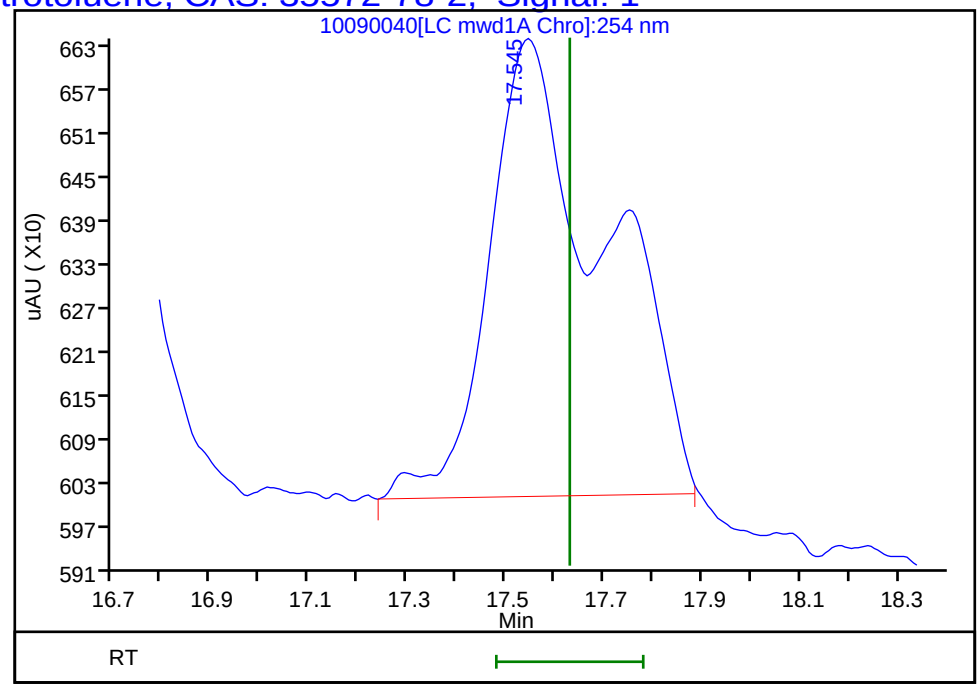
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090040.D				
Injection Date:	10-Oct-2023 10:02:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
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: 17.55
Response: 10361
Amount: 0.026443



Reviewer: K8YG, 10-Oct-2023 15:17:51
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

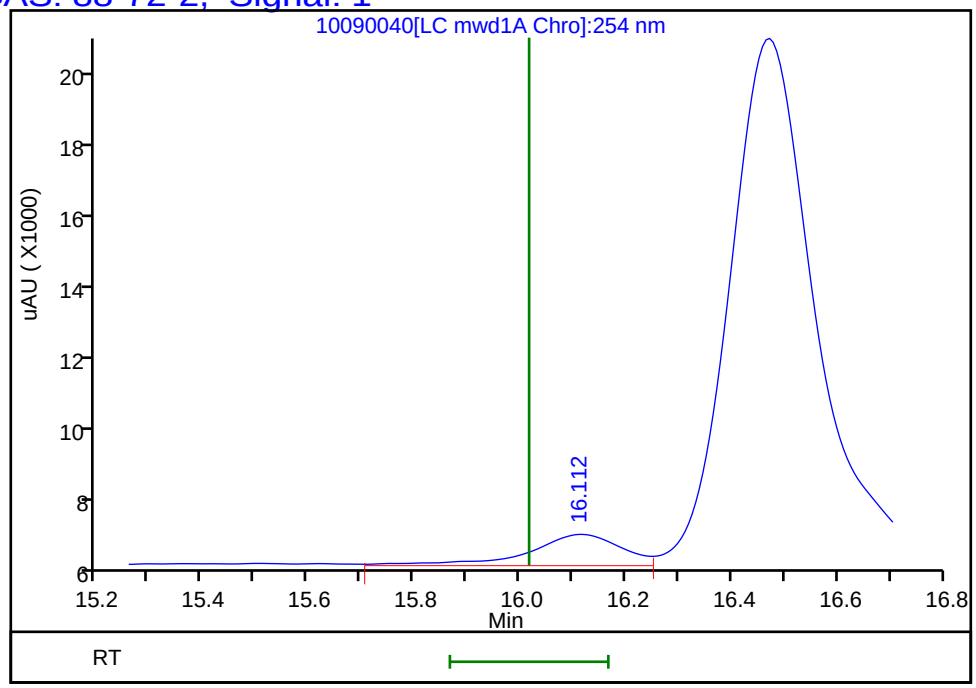
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090040.D				
Injection Date:	10-Oct-2023 10:02:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
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: 16.11
Response: 10470
Amount: 0.044066



Reviewer: K8YG, 10-Oct-2023 15:17:51
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

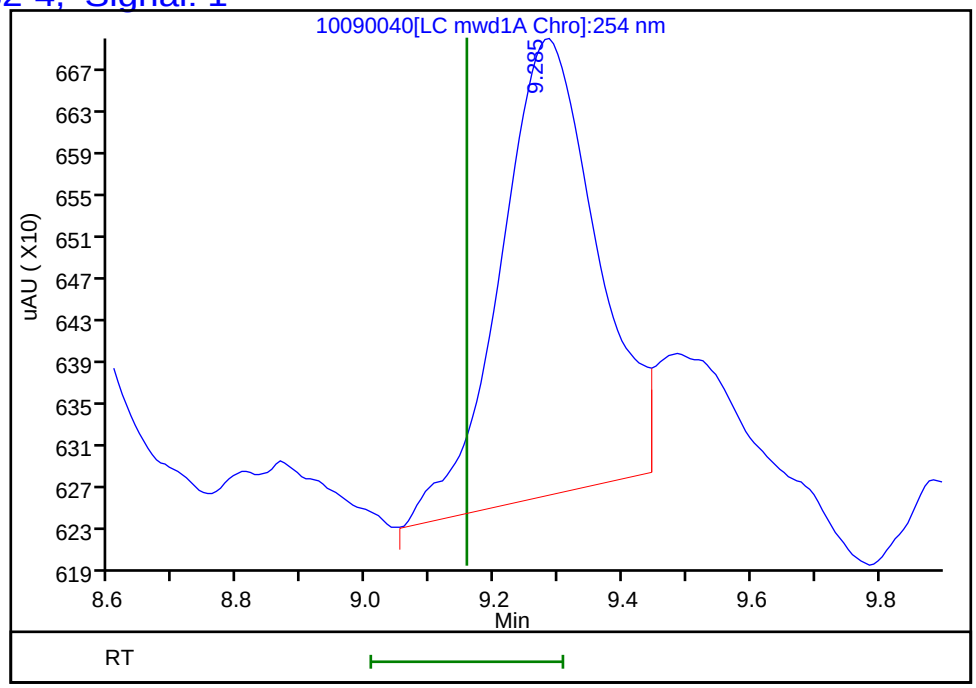
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090040.D				
Injection Date:	10-Oct-2023 10:02:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-181950-B-5-A	Lab Sample ID:	280-181950-5		
Client ID:	LL1mw-089-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
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: 9.29
Response: 4517
Amount: 0.020487



Reviewer: K8YG, 10-Oct-2023 15:17:51
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: FWGmw-012-230901-GW | Lab Sample ID: 280-181950-6

Matrix: Water | Lab File ID: 10070061.D

Analysis Method: 8330B | Date Collected: 09/25/2023 14:25

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 502.7(mL) | Date Analyzed: 10/08/2023 10:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.099	U	0.11	0.099	0.037
118-96-7	2,4,6-Trinitrotoluene	0.099	U	0.11	0.099	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.099	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.099	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.099	U	0.11	0.099	0.050
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.085
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.057
99-99-0	4-Nitrotoluene	0.40	U M Q	0.41	0.40	0.099
2691-41-0	HMX	0.20	U M	0.21	0.20	0.087
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	0.99	U	1.1	0.99	0.44
121-82-4	RDX	0.20	U	0.21	0.20	0.051
479-45-8	Tetryl	0.099	U	0.11	0.099	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	85		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070061.D
Lims ID: 280-181950-B-6-A
Client ID: FWGmw-012-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 10:06:55 ALS Bottle#: 61 Worklist Smp#: 61
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-B-6-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:22 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:22

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.570			ND	U
	8 RDX	1		7.576			ND	
$	10 1,2-Dinitrobenzene	1	8.514	8.516	-0.002	21121	0.1705	
	11 1,3,5-Trinitrobenzene	1		8.643			ND	
	12 1,3-Dinitrobenzene	1		9.250			ND	
	13 Nitrobenzene	1		9.616			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.410			ND	
	17 2,4,6-Trinitrotoluene	1		10.843			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.423			ND	
	21 2,4-Dinitrotoluene	1		11.590			ND	
	22 o-Nitrotoluene	1		12.390			ND	
	23 p-Nitrotoluene	1		12.796			ND	U
	24 m-Nitrotoluene	1		13.356			ND	
	25 PETN	2		14.470			ND	

QC Flag Legend

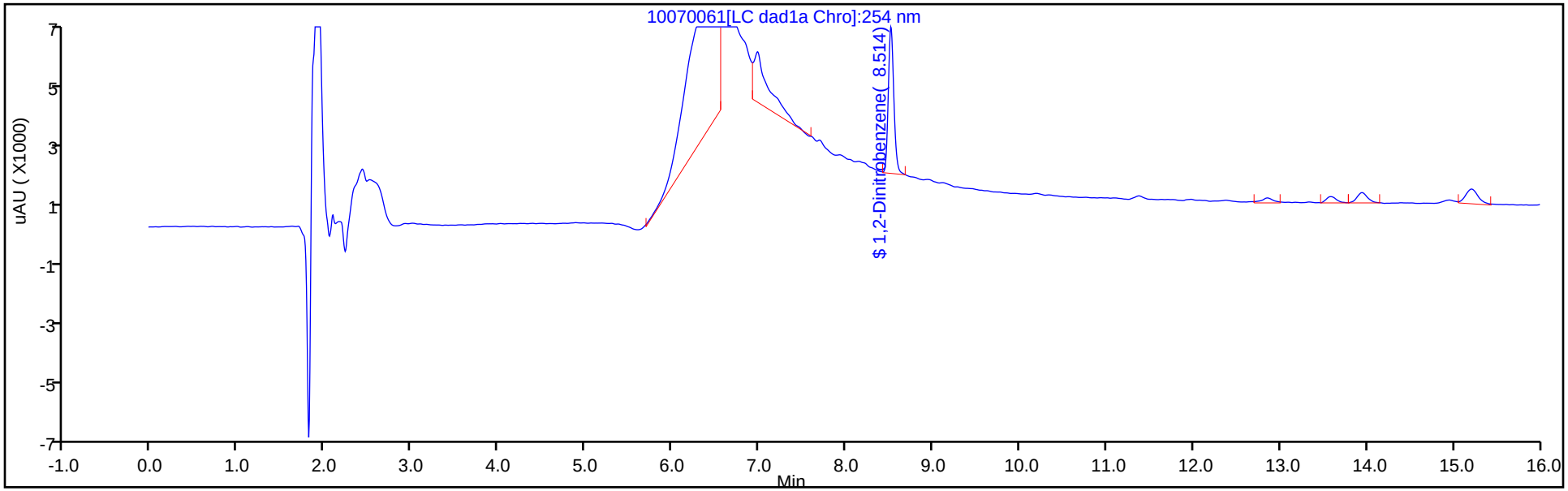
Processing Flags
Review Flags
U - Marked Undetected

Report Date: 09-Oct-2023 11:17:24 Chrom Revision: 2.3 22-Sep-2023 11:33:50

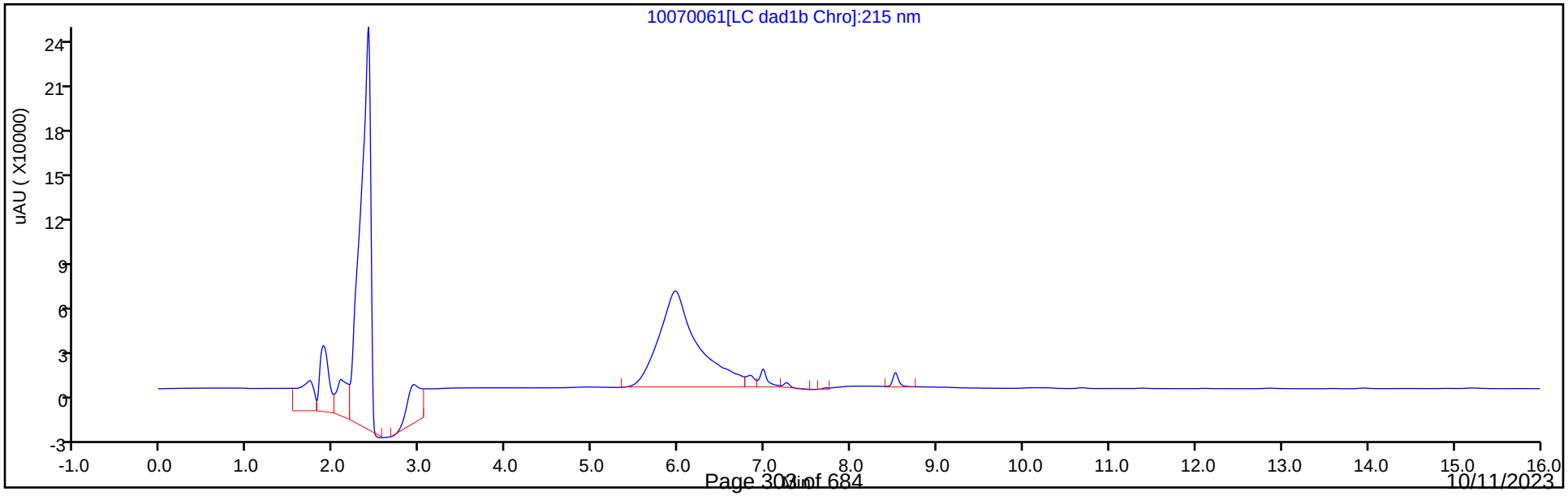
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070061.d				
Injection Date:	08-Oct-2023 10:06:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-B-6-A	Lab Sample ID:	280-181950-6	Worklist Smp#:	61
Client ID:	FWGmw-012-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	61
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\20231007-126276.b\10070061.D				
Lims ID:	280-181950-B-6-A				
Client ID:	FWGmw-012-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 10:06:55	ALS Bottle#:	61	Worklist Smp#:	61
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-B-6-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:22	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:22

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1705	85.23

User Disabled Compound Report

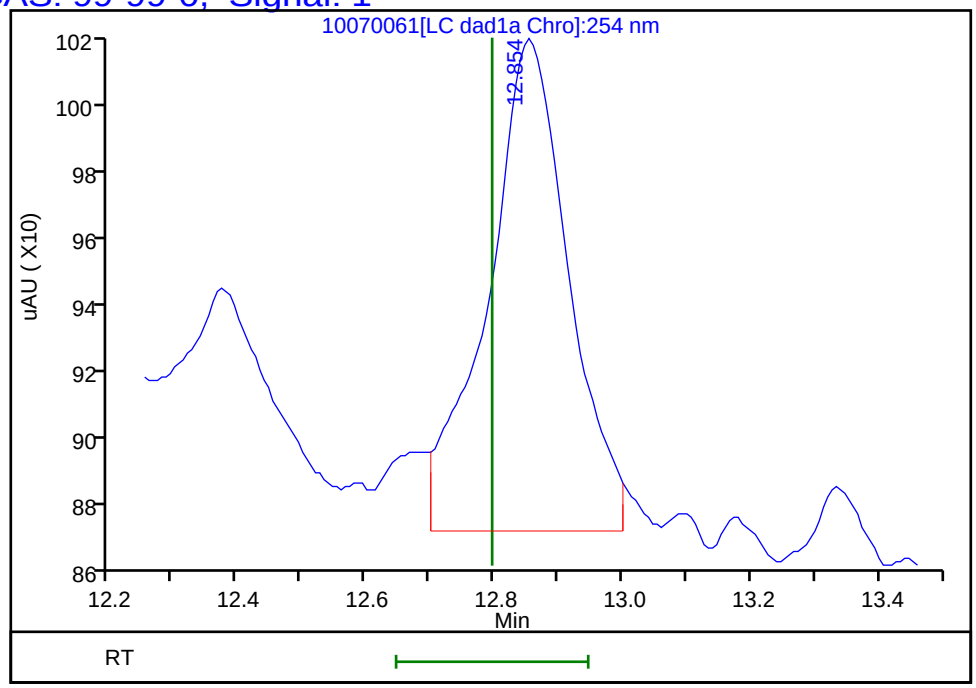
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070061.d
Injection Date: 08-Oct-2023 10:06:55 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-6-A Lab Sample ID: 280-181950-6
Client ID: FWGmw-012-230901-GW
Operator ID: JZ/JG ALS Bottle#: 61 Worklist Smp#: 61
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: 12.85
Response: 1262
Amount: 0.011464



Reviewer: K8YG, 09-Oct-2023 11:15:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

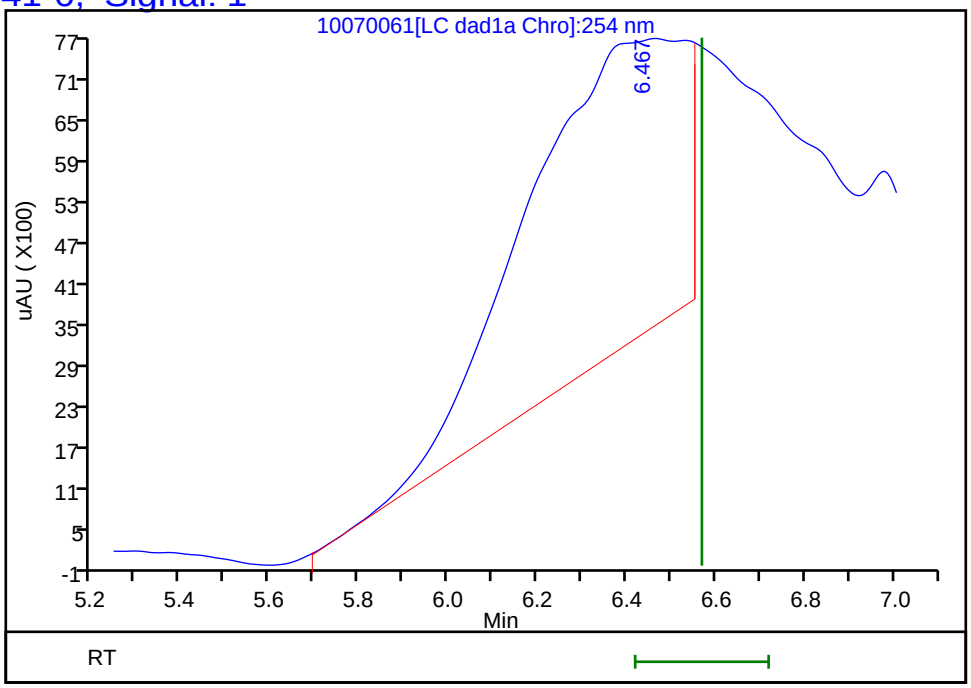
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070061.d
Injection Date: 08-Oct-2023 10:06:55 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-6-A Lab Sample ID: 280-181950-6
Client ID: FWGmw-012-230901-GW
Operator ID: JZ/JG ALS Bottle#: 61 Worklist Smp#: 61
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: 6.47
Response: 111679
Amount: 1.184856



Reviewer: K8YG, 09-Oct-2023 11:15:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: FWGmw-016-230901-GW | Lab Sample ID: 280-181950-7

Matrix: Water | Lab File ID: 10070062.D

Analysis Method: 8330B | Date Collected: 09/25/2023 14:58

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 474.8(mL) | Date Analyzed: 10/08/2023 10:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	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	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U Q	0.43	0.42	0.11
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	0.096
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.97
78-11-5	PETN	1.1	U	1.2	1.1	0.47
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.11	U	0.12	0.11	0.033

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070062.D
Lims ID: 280-181950-B-7-A
Client ID: FWGmw-016-230901-GW
Sample Type: Client
Inject. Date: 08-Oct-2023 10:29:51 ALS Bottle#: 62 Worklist Smp#: 62
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-181950-B-7-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:22 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:15:44

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.570			ND	U
	8 RDX	1		7.576			ND	
$	10 1,2-Dinitrobenzene	1	8.511	8.516	-0.005	20635	0.1665	M
	11 1,3,5-Trinitrobenzene	1		8.643			ND	
	12 1,3-Dinitrobenzene	1		9.250			ND	
	13 Nitrobenzene	1		9.616			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.410			ND	
	17 2,4,6-Trinitrotoluene	1		10.843			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.423			ND	
	21 2,4-Dinitrotoluene	1		11.590			ND	
	22 o-Nitrotoluene	1		12.390			ND	
	23 p-Nitrotoluene	1		12.796			ND	
	24 m-Nitrotoluene	1		13.356			ND	
	25 PETN	2		14.470			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

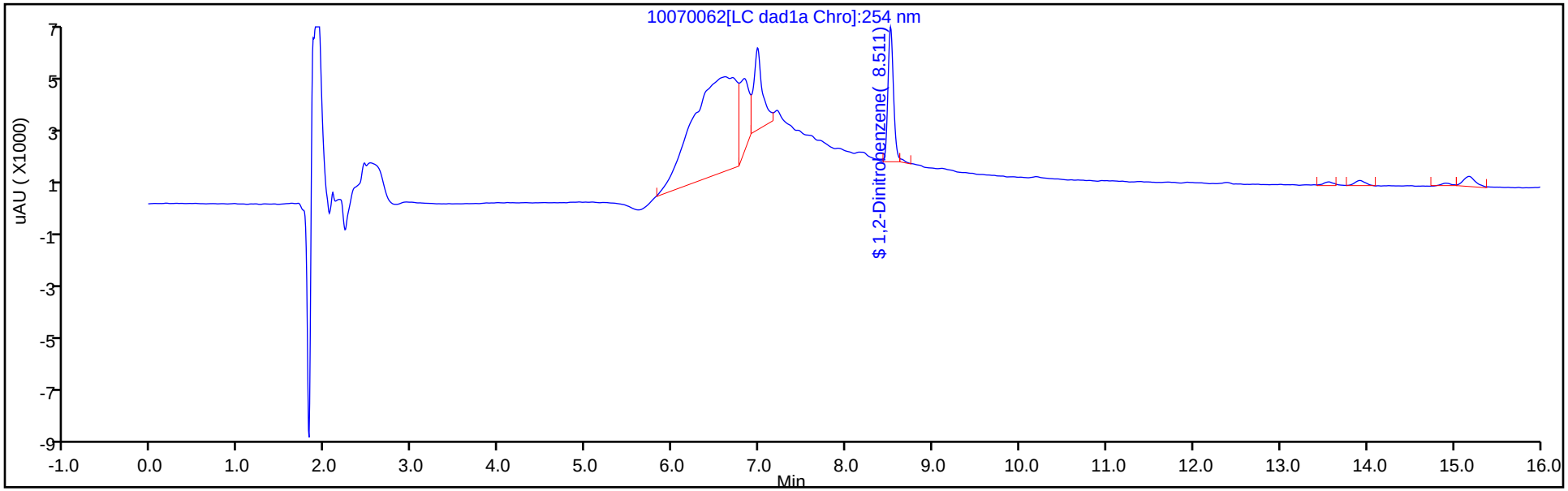
Report Date: 09-Oct-2023 11:17:25 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

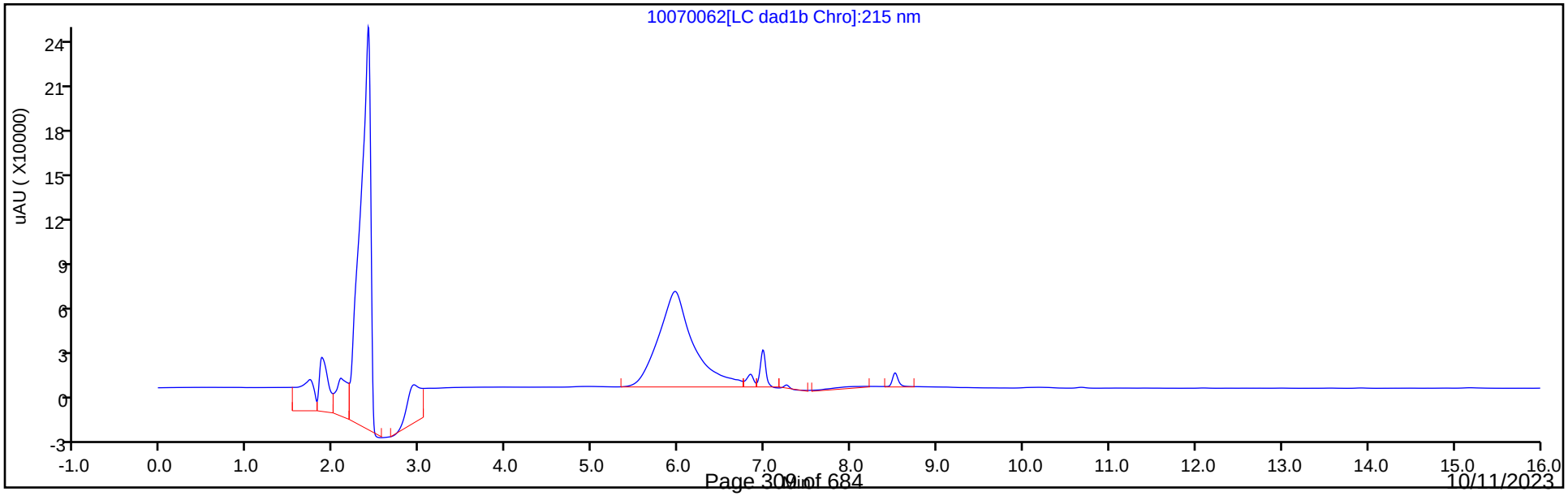
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070062.d

Injection Date:	08-Oct-2023 10:29:51	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-181950-B-7-A	Lab Sample ID:	280-181950-7	Worklist Smp#:	62
Client ID:	FWGmw-016-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	62
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\20231007-126276.b\10070062.D				
Lims ID:	280-181950-B-7-A				
Client ID:	FWGmw-016-230901-GW				
Sample Type:	Client				
Inject. Date:	08-Oct-2023 10:29:51	ALS Bottle#:	62	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-181950-B-7-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:22	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 11:15:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1665	83.27

Manual Integration/User Assign Peak Report

Eurofins Denver

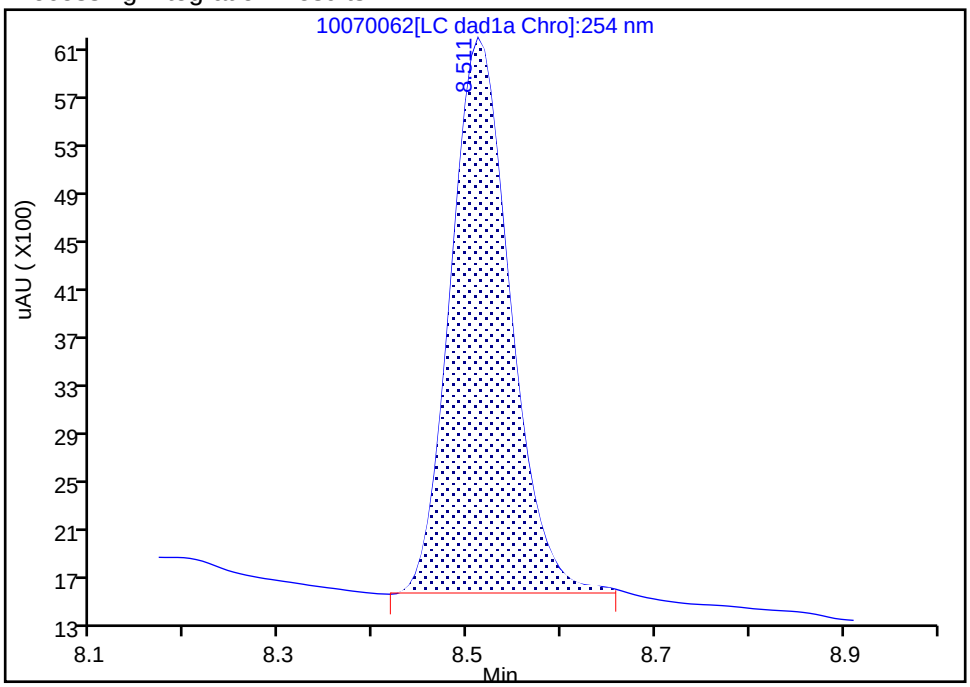
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Injection Date:	08-Oct-2023 10:29:51	Instrument ID:	CHHPLC_X3		
Lims ID:	280-181950-B-7-A	Lab Sample ID:	280-181950-7		
Client ID:	FWGmw-016-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	62	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

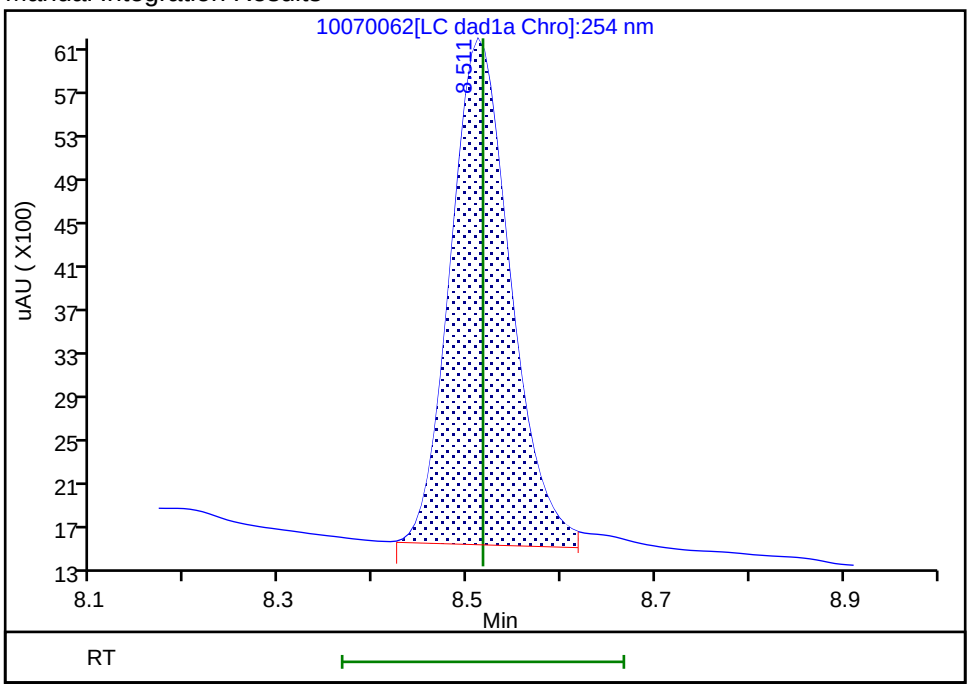
Processing Integration Results

RT: 8.51
Area: 20397
Amount: 0.164610
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 20635
Amount: 0.166531
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:15:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

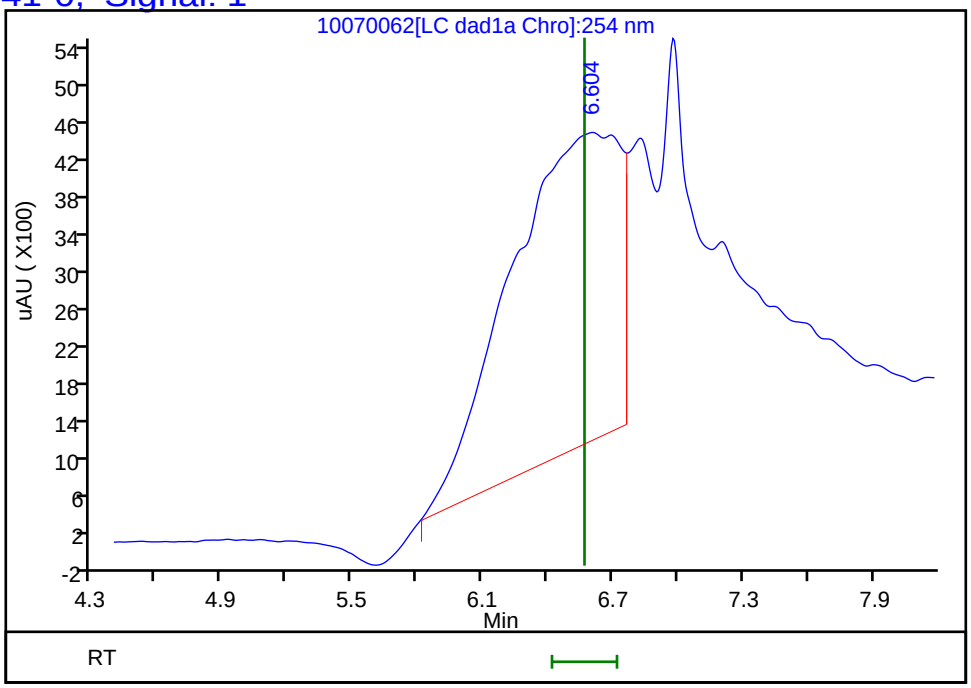
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070062.d
Injection Date: 08-Oct-2023 10:29:51 Instrument ID: CHHPLC_X3
Lims ID: 280-181950-B-7-A Lab Sample ID: 280-181950-7
Client ID: FWGmw-016-230901-GW
Operator ID: JZ/JG ALS Bottle#: 62 Worklist Smp#: 62
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: 118306
Amount: 1.255165



Reviewer: K8YG, 09-Oct-2023 11:15:53
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.: 280-181950-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.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	6.474	6.473	6.472	6.470	6.478	6.474	6.466	6.470	6.463		6.370 - 6.570	6.471
HMX	6.601	6.593	6.598	6.597	6.598	6.600	6.593	6.597	6.590		6.447 - 6.747	6.596
DNX	6.801	6.799	6.798	6.803	6.805	6.807	6.800	6.797	6.797		6.703 - 6.903	6.801
MNX	7.241	7.233	7.232	7.237	7.238	7.240	7.233	7.230	7.223		7.087 - 7.387	7.234
RDX	7.627	7.619	7.625	7.623	7.625	7.627	7.626	7.623	7.617		7.473 - 7.773	7.624
Picric acid	8.041	8.026	8.032	8.030	8.025	8.020	8.006	7.997	7.957		7.880 - 8.180	8.015
1,3,5-Trinitrobenzene	8.714	8.699	8.712	8.710	8.711	8.714	8.713	8.710	8.703		8.560 - 8.860	8.710
1,3-Dinitrobenzene	9.334	9.326	9.338	9.336	9.338	9.340	9.340	9.343	9.330		9.186 - 9.486	9.336
Nitrobenzene	9.714	9.699	9.711	9.710	9.711	9.713	9.713	9.716	9.703		9.560 - 9.860	9.710
3,5-Dinitroaniline	9.941	9.932	9.945	9.943	9.945	9.947	9.953	9.950	9.936		9.793 - 10.093	9.944
Tetryl	10.081	10.066	10.085	10.083	10.085	10.087	10.093	10.096	10.083		9.933 - 10.233	10.084
Nitroglycerin	10.534	10.526	10.538	10.536	10.545	10.540	10.546	10.550	10.530		10.386 - 10.686	10.538
2,4,6-Trinitrotoluene	10.974	10.959	10.978	10.976	10.985	10.980	10.986	10.990	10.976		10.876 - 11.076	10.978
4-Amino-2,6-dinitrotoluene	11.174	11.159	11.178	11.170	11.178	11.180	11.180	11.190	11.170		11.070 - 11.270	11.175
2-Amino-4,6-dinitrotoluene	11.421	11.412	11.431	11.423	11.431	11.433	11.433	11.443	11.423		11.323 - 11.523	11.428
2,6-Dinitrotoluene	11.574	11.566	11.585	11.576	11.585	11.587	11.586	11.603	11.576		11.476 - 11.676	11.582
2,4-Dinitrotoluene	11.741	11.732	11.751	11.743	11.758	11.753	11.753	11.770	11.750		11.643 - 11.843	11.750
2-Nitrotoluene	12.567	12.559	12.585	12.570	12.585	12.587	12.580	12.603	12.576		12.420 - 12.720	12.579
4-Nitrotoluene	12.994	12.979	13.005	12.983	13.011	13.007	13.000	13.023	12.996		12.833 - 13.133	13.000
3-Nitrotoluene	13.554	13.552	13.578	13.556	13.585	13.580	13.573	13.603	13.576		13.406 - 13.706	13.573
PETN	14.721	14.719	14.751	14.723	14.765	14.760	14.746	14.790	14.763		14.573 - 14.873	14.749
1,2-Dinitrobenzene	8.594	8.579	8.585	8.590	8.591	8.594	8.593	8.590	8.583		8.440 - 8.740	8.589

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.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	218345 199282 202810	194267 190950	198903 201995	199432 200863	Ave		200760.909				3.8		20.0			
HMX	104800 93284 93922	98000 89623	89920 93704	92010 93035	Ave		94255.3540				4.9		20.0			
DNX	141059 145443 150089	130869 142877	145834 149216	147113 147935	Ave		144492.787				4.1		20.0			
MNX	155184 135373 135234	135176 133762	139692 138336	138586 136855	Ave		138688.620				4.7		20.0			
RDX	122500 108156 107283	111700 106285	109440 107483	114570 107019	Ave		110492.851				4.7		20.0			
Picric acid	75600 77048 79416	72350 78670	79580 79549	79510 79045	Ave		77863.1079				3.2		20.0			
1,3,5-Trinitrobenzene	201900 220552 221605	204150 222658	216100 222134	216840 218769	Ave		216078.621				3.6		20.0			
1,3-Dinitrobenzene	290100 293424 298160	279950 295148	293680 295721	298900 295042	Ave		293347.214				1.9		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
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

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	202000 190284 194953	186550 191388	191220 192774	193090 192007	Ave		192696.176				2.2		20.0			
3,5-Dinitroaniline	215100 223884 228641	213100 226128	223360 223811	224860 223593	Lin2	-127.03053	225169.737							1.0000		0.9900
Tetryl	154600 168428 171425	162400 169073	164640 172947	169610 172187	Ave		167256.605				3.5		20.0			
Nitroglycerin	60470 64467 66333	63410 67620	62508 65912	65270 65866	Ave		64650.6462				3.4		20.0			
2,4,6-Trinitrotoluene	191800 206336 208465	199050 207430	205380 208274	209070 208313	Ave		204902.054				2.8		20.0			
4-Amino-2,6-dinitrotoluene	146400 147684 149596	155550 149973	148620 149269	150580 148367	Ave		149559.741				1.7		20.0			
2-Amino-4,6-dinitrotoluene	195000 192472 199138	193150 192890	192080 191494	193020 194204	Ave		193716.432				1.2		20.0			
2,6-Dinitrotoluene	137300 142012 139214	145800 143420	143200 144666	144950 143182	Ave		142638.190				1.9		20.0			
2,4-Dinitrotoluene	294100 292196 301304	291450 296063	296000 297416	298110 294715	Ave		295705.957				1.0		20.0			
2-Nitrotoluene	129100 123032 125800	127800 124178	128060 124377	129120 123644	Ave		126123.360				1.9		20.0			
4-Nitrotoluene	116500 104936 107763	120200 106565	110860 107116	110570 106286	Ave		110088.390				4.7		20.0			
3-Nitrotoluene	187000 135416 138231	167050 136003	145640 136367	140010 135553	Lin2	535.002088	135553.140							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.: 280-181950-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

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	73280 71671 73155	68185 72517	71842 72738	72200 72573	Ave		72017.9754				2.1		20.0			
1,2-Dinitrobenzene	117200 124272 124483	118950 125155	125000 125046	127830 127262	Ave		123910.879				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.: 280-181950-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.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	2190 76609	3897 141821	9975 201466	20003 508547	49970	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	1048 35849	1960 65593	4496 93035	9201 234806	23321	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1412 57208	2620 104556	7299 148083	14726 375597	36397	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
MNX	Ave	1811 62440	3155 113007	8151 159710	16173 394545	39495	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
RDX	Ave	1225 42514	2234 75238	5472 107019	11457 268207	27039	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	756 31468	1447 55684	3979 79045	7951 198541	19262	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2019 89063	4083 155494	10805 218769	21684 554012	55138	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	2901 118059	5599 207005	14684 295042	29890 745400	73356	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	2020 76555	3731 134942	9561 192007	19309 487382	47571	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2151 90451	4262 156668	11168 223593	22486 571603	55971	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1546 67629	3248 121063	8232 172187	16961 428562	42107	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6047 270481	12682 461386	31254 658658	65270 1658317	161167	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	1918 82972	3981 145792	10269 208313	20907 521163	51584	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1464 59989	3111 104488	7431 148367	15058 373989	36921	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1950	3863	9604	19302	48118	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.: 280-181950-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

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
		77156	134046	194204	497844		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1373 57368	2916 101266	7160 143182	14495 348035	35503	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2941 118425	5829 208191	14800 294715	29811 753261	73049	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Ave	1291 49671	2556 87064	6403 123644	12912 314499	30758	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1165 42626	2404 74981	5543 106286	11057 269407	26234	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	1870 54401	3341 95457	7282 135553	14001 345577	33854	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7328 290067	13637 509169	35921 725734	72200 1828875	179178	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	1172 50062	2379 87532	6250 127262	12783 311208	31068	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230011.D
Lims ID: IC INT/DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 23-Jun-2023 17:53:55 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:47 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 18:20:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.463	6.470	-0.007	508547	2.51	2.53	Ma
4 HMX	1	6.590	6.597	-0.007	234806	2.50	2.49	M
6 DNX	1	6.797	6.803	-0.006	375597	2.50	2.60	M
7 MNX	1	7.223	7.237	-0.014	394545	2.92	2.84	M
8 RDX	1	7.617	7.623	-0.006	268207	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.957	8.030	-0.073	198541	2.50	2.55	
$ 10 1,2-Dinitrobenzene	1	8.583	8.590	-0.007	311208	2.50	2.51	
11 1,3,5-Trinitrobenzene	1	8.703	8.710	-0.007	554012	2.50	2.56	
12 1,3-Dinitrobenzene	1	9.330	9.336	-0.006	745400	2.50	2.54	
13 Nitrobenzene	1	9.703	9.710	-0.007	487382	2.50	2.53	
14 3,5-Dinitroaniline	1	9.936	9.943	-0.007	571603	2.50	2.54	
15 Tetryl	1	10.083	10.083	0.000	428562	2.50	2.56	
16 Nitroglycerin	2	10.530	10.536	-0.006	1658317	25.0	25.7	
17 2,4,6-Trinitrotoluene	1	10.976	10.976	0.000	521163	2.50	2.54	
18 4-Amino-2,6-dinitrotoluene	1	11.170	11.170	0.000	373989	2.50	2.50	
19 2-Amino-4,6-dinitrotoluene	1	11.423	11.423	0.000	497844	2.50	2.57	
20 2,6-Dinitrotoluene	1	11.576	11.576	0.000	348035	2.50	2.44	
21 2,4-Dinitrotoluene	1	11.750	11.743	0.007	753261	2.50	2.55	
22 o-Nitrotoluene	1	12.576	12.570	0.006	314499	2.50	2.49	
23 p-Nitrotoluene	1	12.996	12.983	0.013	269407	2.50	2.45	
24 m-Nitrotoluene	1	13.576	13.556	0.020	345577	2.50	2.55	
25 PETN	2	14.763	14.723	0.040	1828875	25.0	25.4	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00077	Amount Added: 250.00	Units: uL
8330 DMT_00013	Amount Added: 125.00	Units: uL

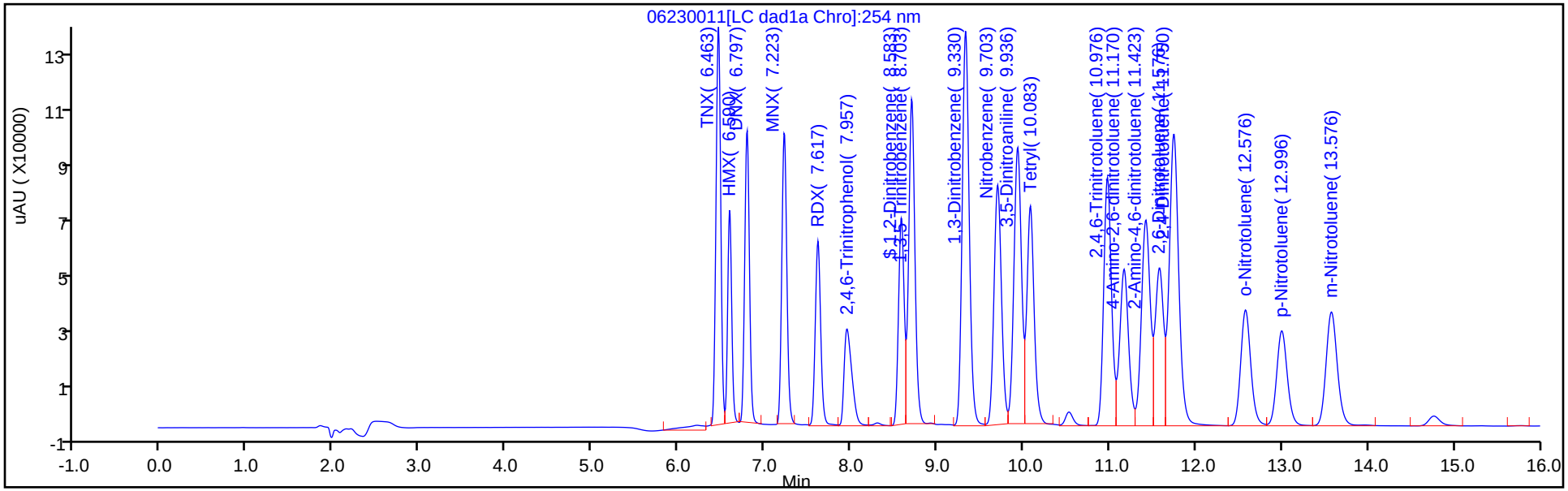
Report Date: 24-Jun-2023 12:55:47 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

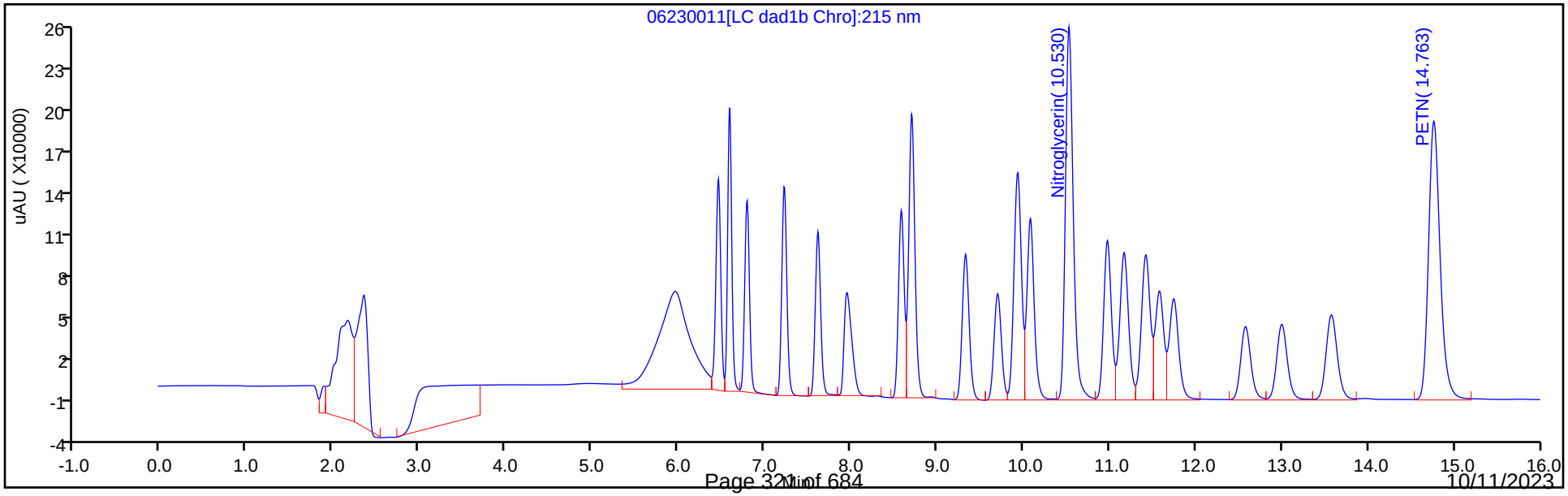
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d

Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

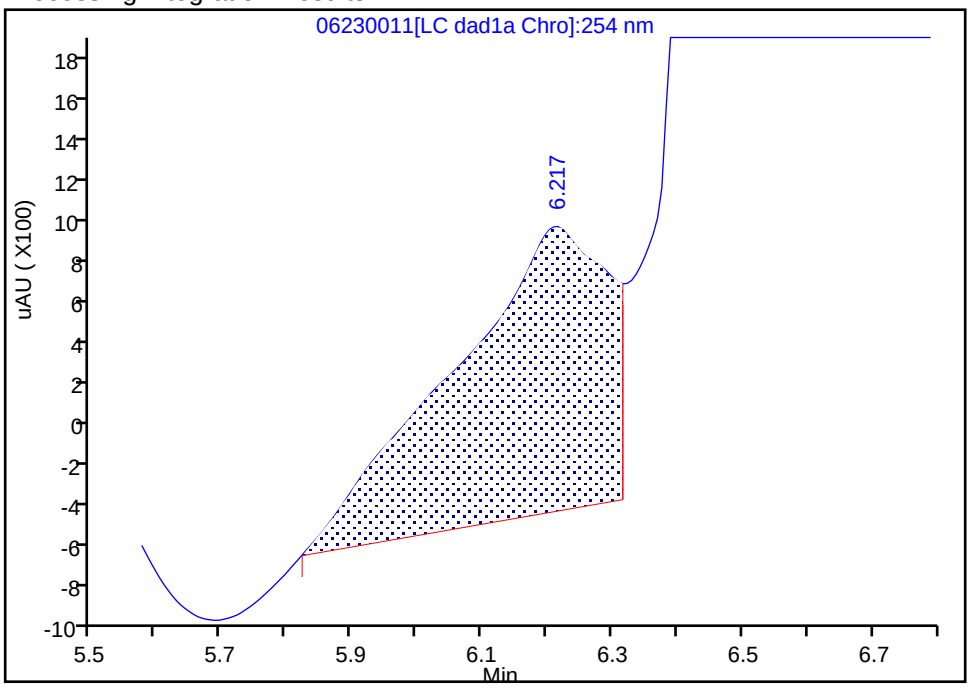
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

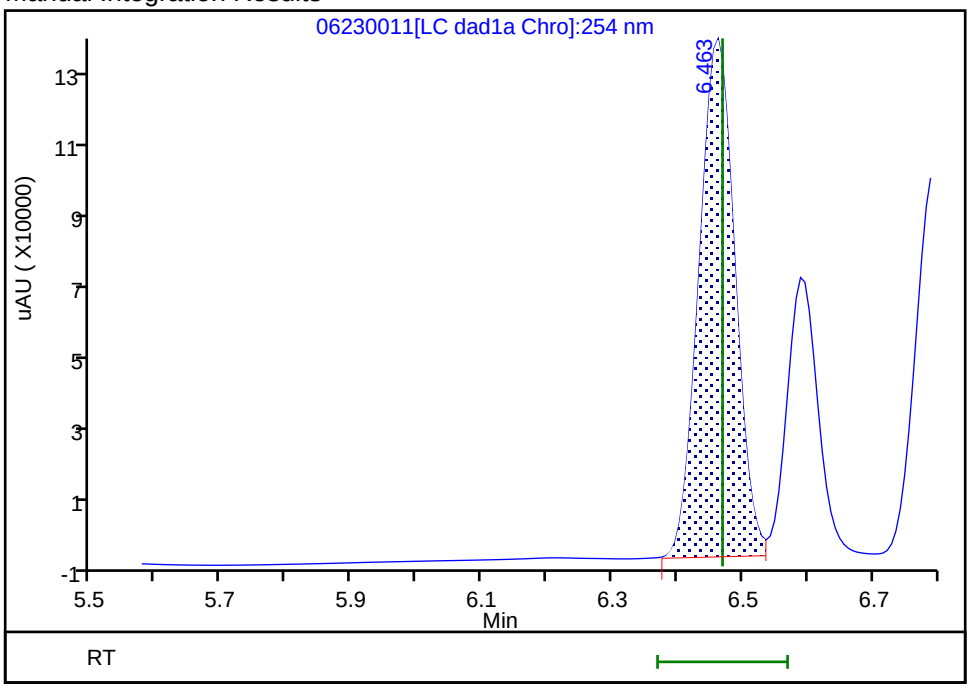
Processing Integration Results

RT: 6.22
Area: 22780
Amount: 0.128896
Amount Units: ug/mL



Manual Integration Results

RT: 6.46
Area: 508547
Amount: 2.533098
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:12 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

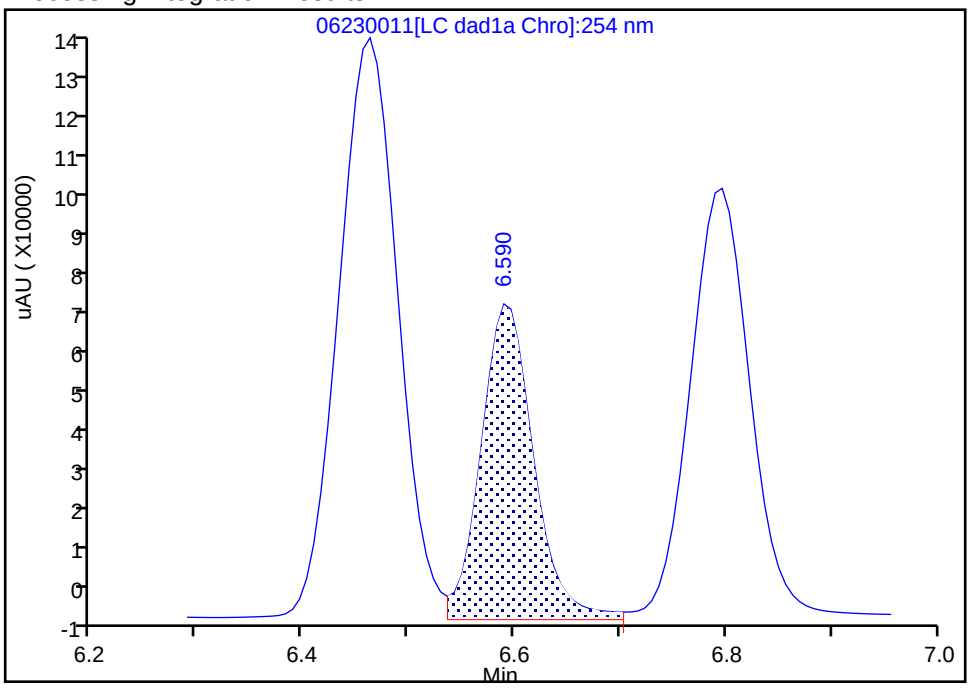
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

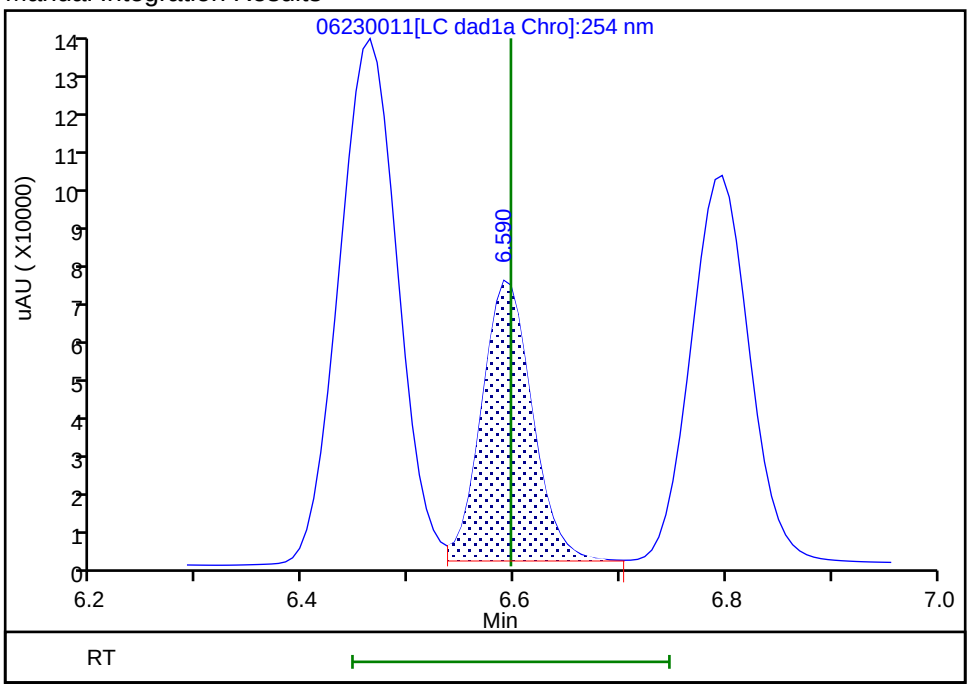
Processing Integration Results

RT: 6.59
Area: 250801
Amount: 2.654489
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 234806
Amount: 2.491169
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:04 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

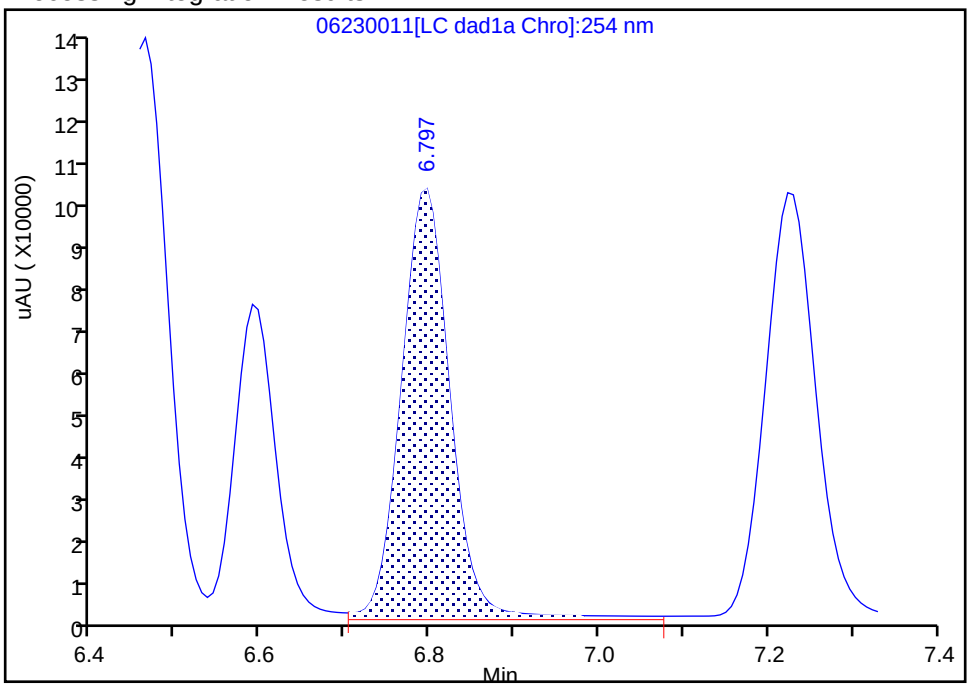
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

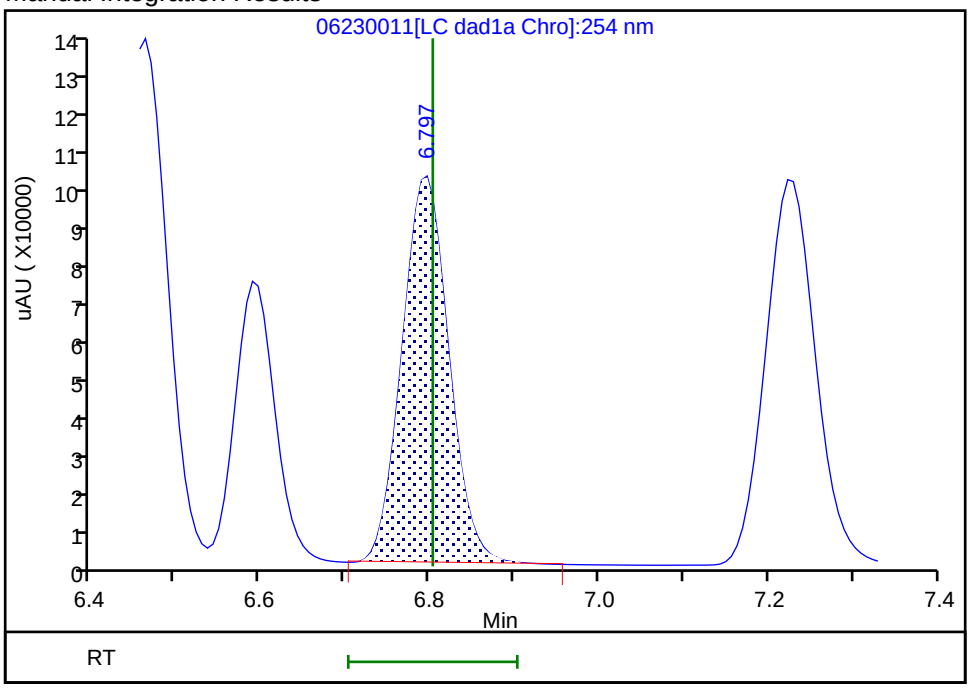
Processing Integration Results

RT: 6.80
Area: 401390
Amount: 2.744869
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 375597
Amount: 2.599417
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:19:56 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

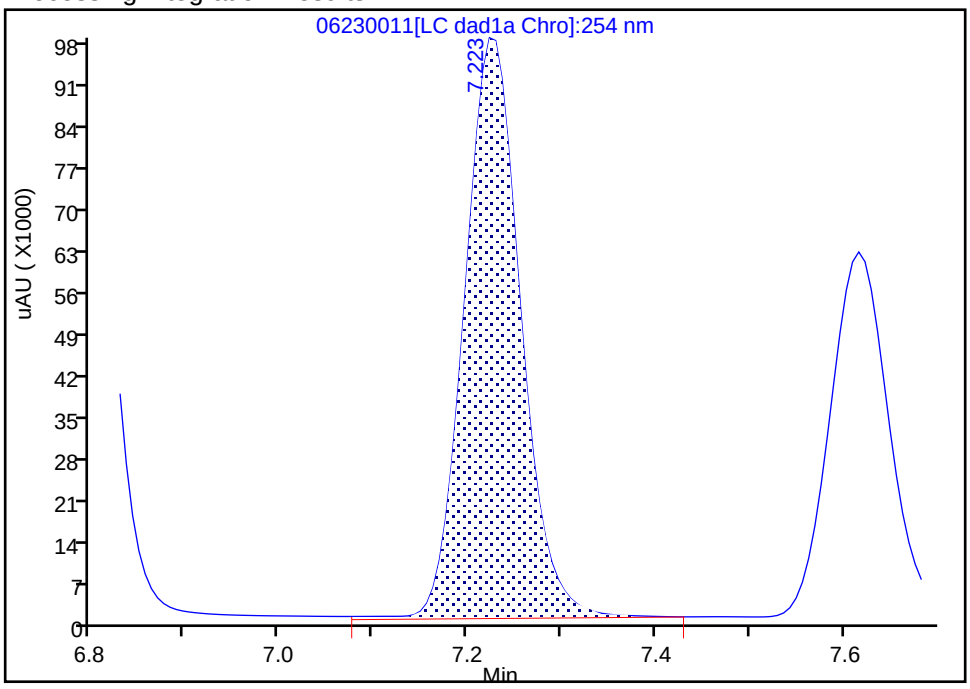
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Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

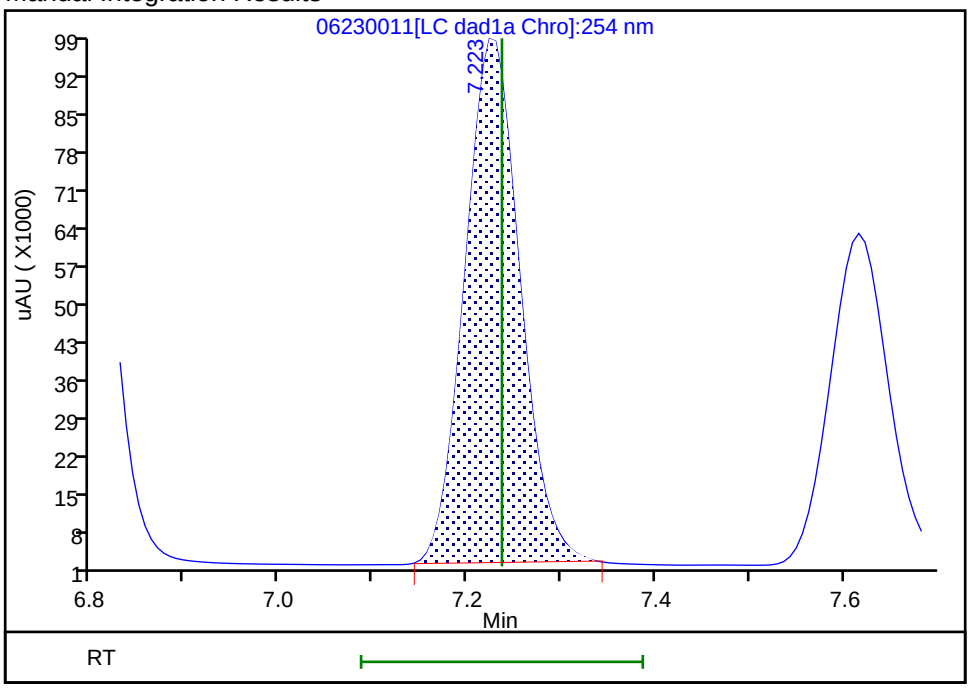
Processing Integration Results

RT: 7.22
Area: 409944
Amount: 3.100717
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 394545
Amount: 2.844826
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230012.D
Lims ID: IC INT/DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Jun-2023 18:16:50 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:48 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 18:54:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.470	6.470	0.000	201466	1.00	1.00	M
4 HMX	1	6.597	6.597	0.000	93035	1.00	0.9871	M
6 DNX	1	6.797	6.803	-0.006	148083	1.00	1.02	M
7 MNX	1	7.230	7.237	-0.007	159710	1.17	1.15	
8 RDX	1	7.623	7.623	0.000	107019	1.00	0.9686	
9 2,4,6-Trinitrophenol	1	7.997	8.030	-0.033	79045	1.00	1.02	
$ 10 1,2-Dinitrobenzene	1	8.590	8.590	0.000	127262	1.00	1.03	
11 1,3,5-Trinitrobenzene	1	8.710	8.710	0.000	218769	1.00	1.01	
12 1,3-Dinitrobenzene	1	9.343	9.336	0.007	295042	1.00	1.01	
13 Nitrobenzene	1	9.716	9.710	0.006	192007	1.00	1.00	
14 3,5-Dinitroaniline	1	9.950	9.943	0.007	223593	1.00	0.99	
15 Tetryl	1	10.096	10.083	0.013	172187	1.00	1.03	
16 Nitroglycerin	2	10.550	10.536	0.014	658658	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.990	10.976	0.014	208313	1.00	1.02	
18 4-Amino-2,6-dinitrotoluene	1	11.190	11.170	0.020	148367	1.00	0.99	
19 2-Amino-4,6-dinitrotoluene	1	11.443	11.423	0.020	194204	1.00	1.00	
20 2,6-Dinitrotoluene	1	11.603	11.576	0.027	143182	1.00	1.00	
21 2,4-Dinitrotoluene	1	11.770	11.743	0.027	294715	1.00	1.00	
22 o-Nitrotoluene	1	12.603	12.570	0.033	123644	1.00	0.9803	
23 p-Nitrotoluene	1	13.023	12.983	0.040	106286	1.00	0.9655	
24 m-Nitrotoluene	1	13.603	13.556	0.047	135553	1.00	1.00	
25 PETN	2	14.790	14.723	0.067	725734	10.0	10.1	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added: 50.00	Units: uL
8330IntermStk_00077	Amount Added: 100.00	Units: uL

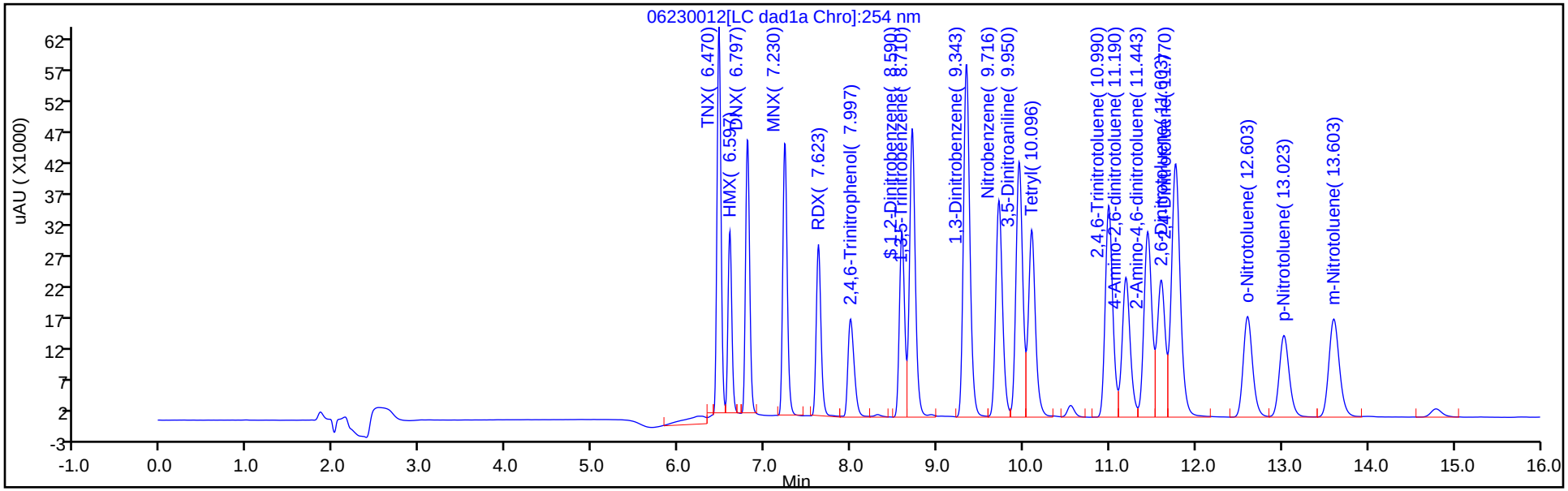
Report Date: 24-Jun-2023 12:55:48 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

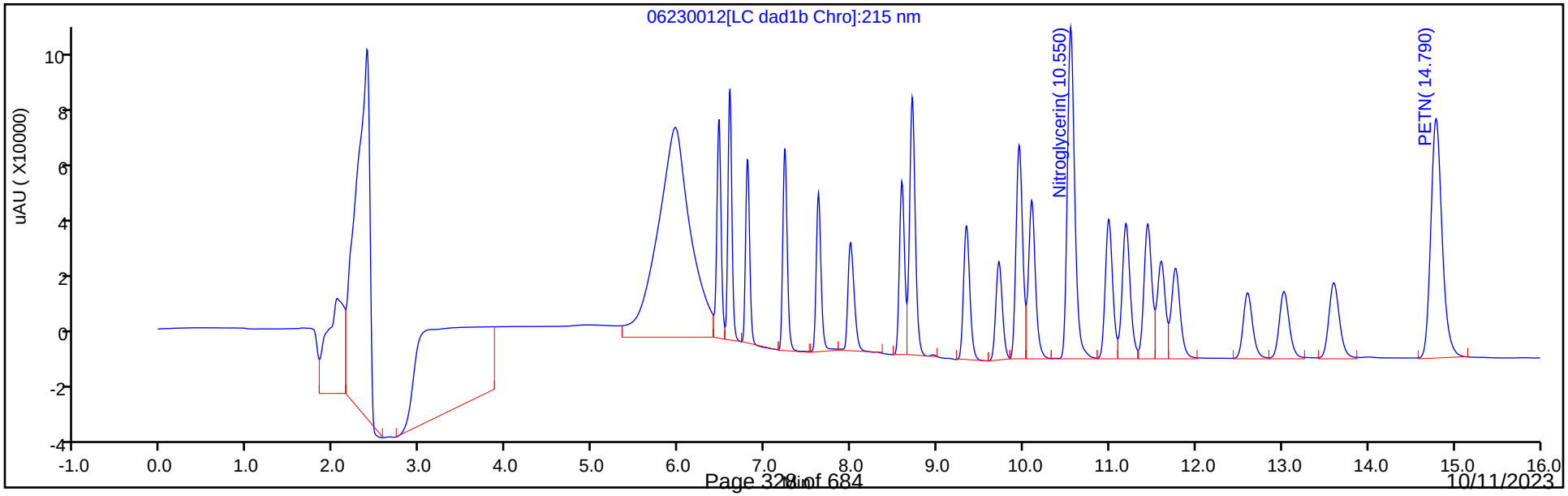
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d

Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

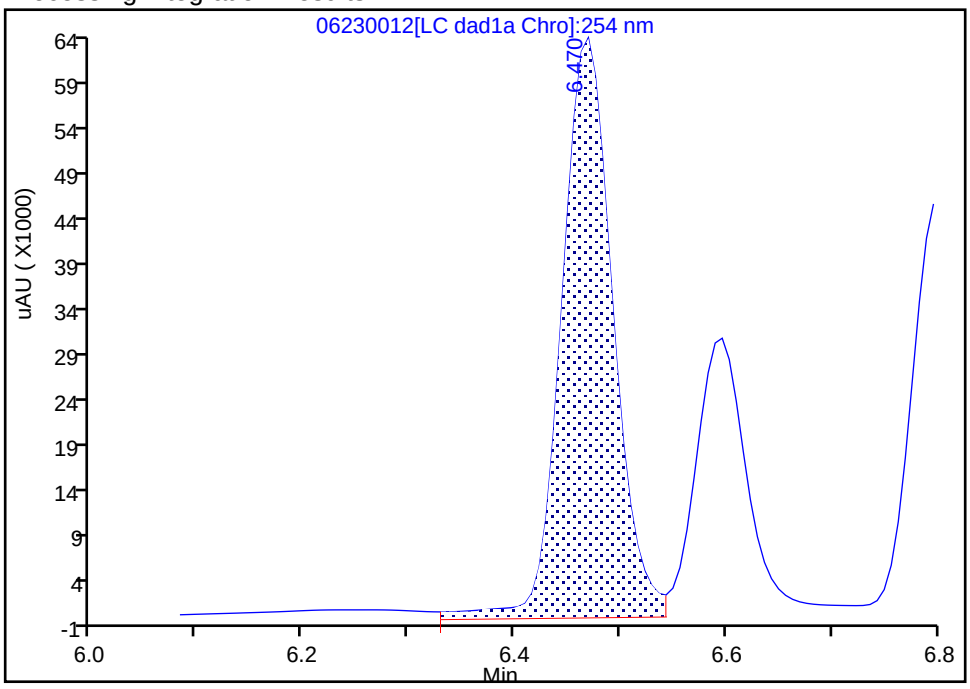
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Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

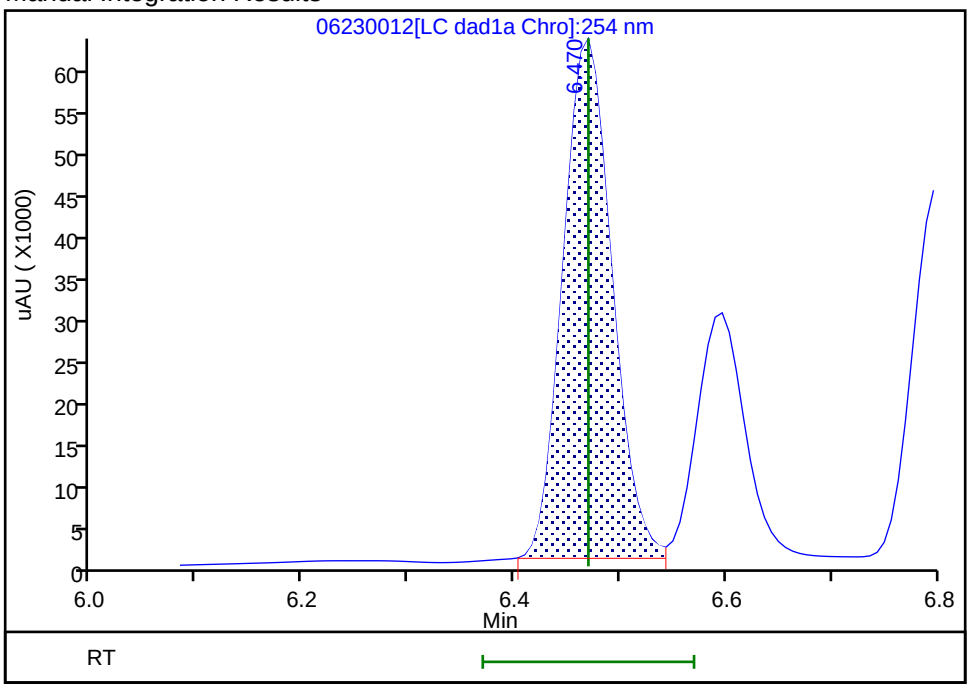
Processing Integration Results

RT: 6.47
Area: 216616
Amount: 1.084797
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 201466
Amount: 1.003512
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:07 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

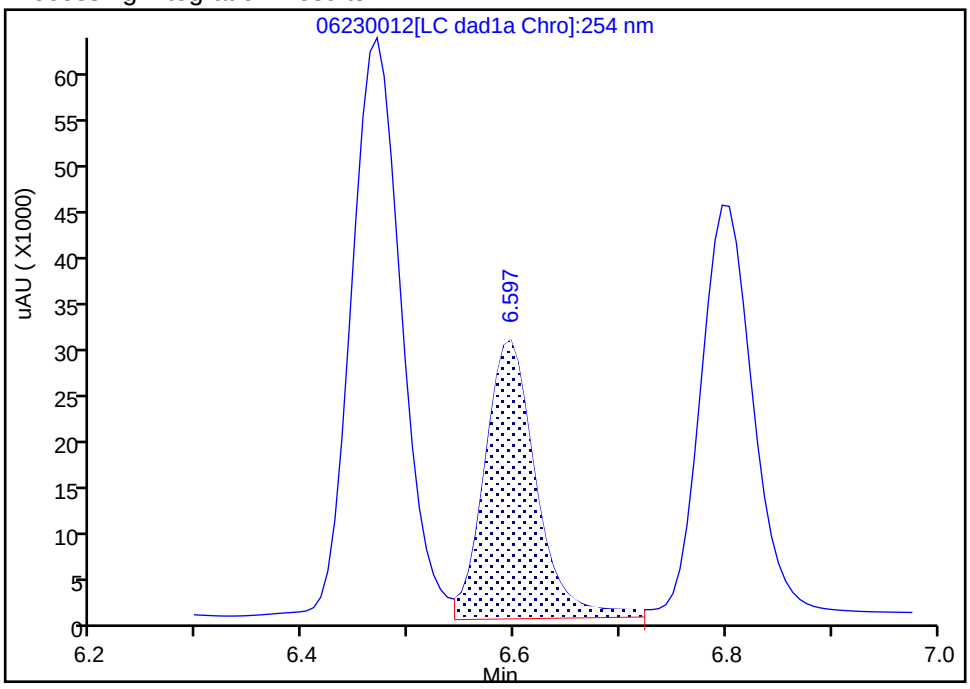
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d				
Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

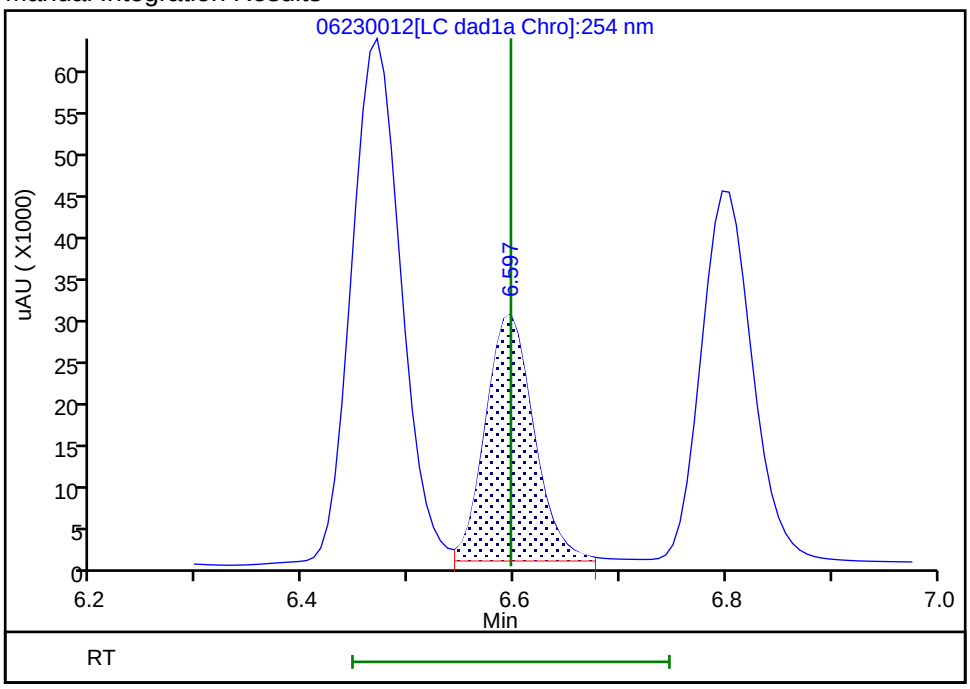
Processing Integration Results

RT: 6.60
Area: 103827
Amount: 1.091337
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 93035
Amount: 0.987053
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:08 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

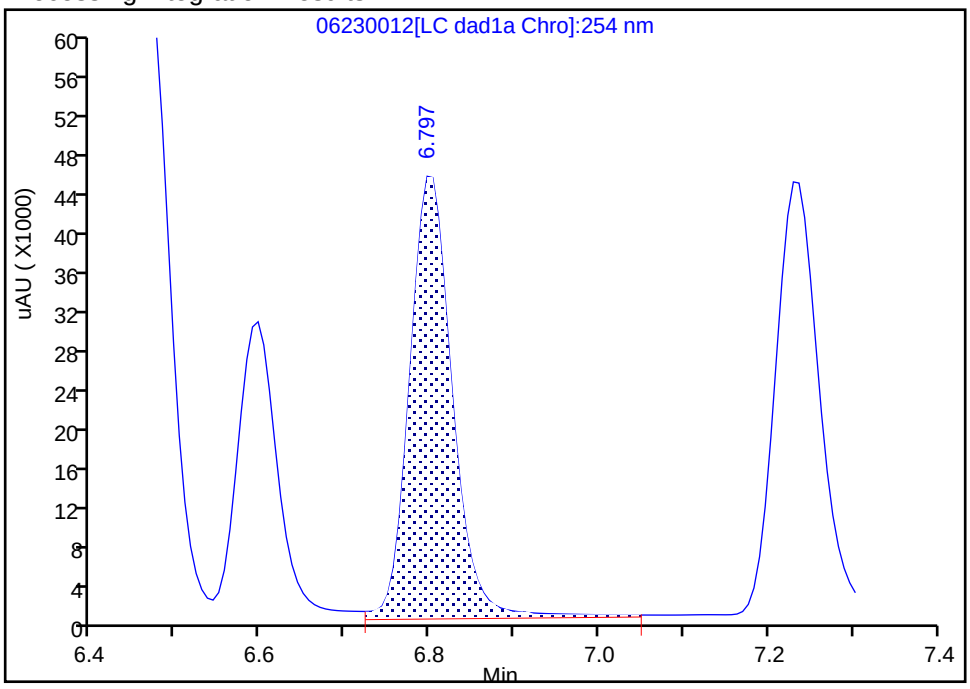
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d
Injection Date: 23-Jun-2023 18:16:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

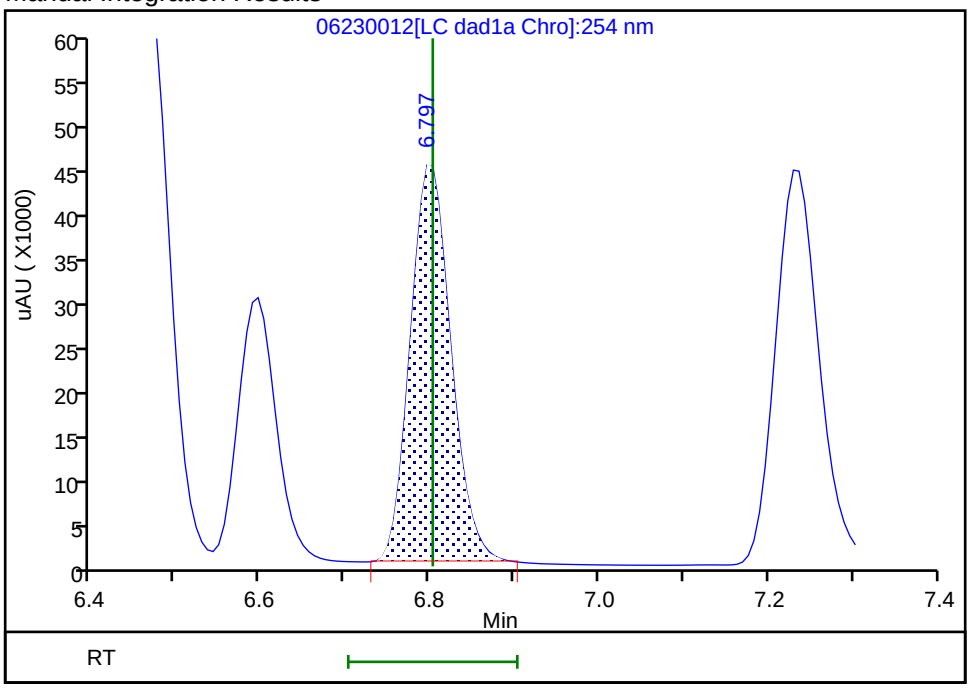
Processing Integration Results

RT: 6.80
Area: 160299
Amount: 1.093419
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 148083
Amount: 1.024847
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:10 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230013.D
Lims ID: IC INT/DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Jun-2023 18:39:49 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:48 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 19:10:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.466	6.470	-0.004	141821	0.7021	0.7064	M
4 HMX	1	6.593	6.597	-0.004	65593	0.7000	0.6959	M
6 DNX	1	6.800	6.803	-0.003	104556	0.7007	0.7236	M
7 MNX	1	7.233	7.237	-0.004	113007	0.8169	0.8148	
8 RDX	1	7.626	7.623	0.003	75238	0.7000	0.6809	
9 2,4,6-Trinitrophenol	1	8.006	8.030	-0.024	55684	0.7000	0.7152	
$ 10 1,2-Dinitrobenzene	1	8.593	8.590	0.003	87532	0.7000	0.7064	
11 1,3,5-Trinitrobenzene	1	8.713	8.710	0.003	155494	0.7000	0.7196	
12 1,3-Dinitrobenzene	1	9.340	9.336	0.004	207005	0.7000	0.7057	
13 Nitrobenzene	1	9.713	9.710	0.003	134942	0.7000	0.7003	
14 3,5-Dinitroaniline	1	9.953	9.943	0.010	156668	0.7000	0.6963	
15 Tetryl	1	10.093	10.083	0.010	121063	0.7000	0.7238	
16 Nitroglycerin	2	10.546	10.536	0.010	461386	7.00	7.14	
17 2,4,6-Trinitrotoluene	1	10.986	10.976	0.010	145792	0.7000	0.7115	
18 4-Amino-2,6-dinitrotoluene	1	11.180	11.170	0.010	104488	0.7000	0.6986	
19 2-Amino-4,6-dinitrotoluene	1	11.433	11.423	0.010	134046	0.7000	0.6920	
20 2,6-Dinitrotoluene	1	11.586	11.576	0.010	101266	0.7000	0.7100	
21 2,4-Dinitrotoluene	1	11.753	11.743	0.010	208191	0.7000	0.7040	
22 o-Nitrotoluene	1	12.580	12.570	0.010	87064	0.7000	0.6903	
23 p-Nitrotoluene	1	13.000	12.983	0.017	74981	0.7000	0.6811	
24 m-Nitrotoluene	1	13.573	13.556	0.017	95457	0.7000	0.7003	
25 PETN	2	14.746	14.723	0.023	509169	7.00	7.07	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	35.00	Units: uL
8330IntermStk_00077	Amount Added:	70.00	Units: uL

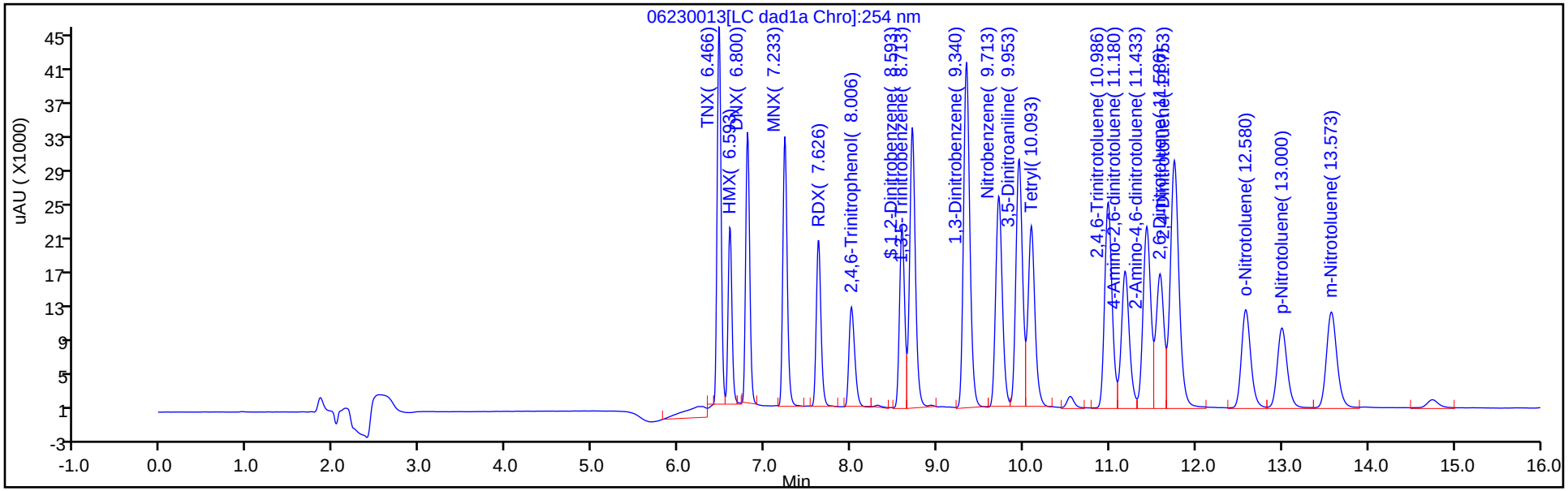
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Eurofins Denver

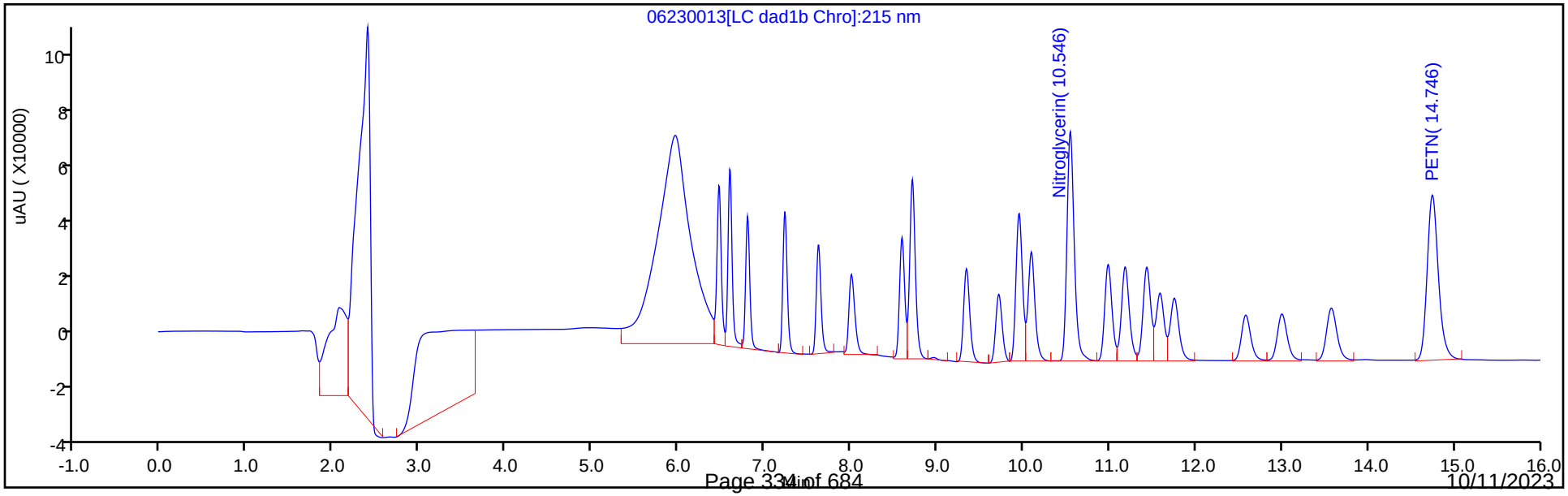
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d

Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

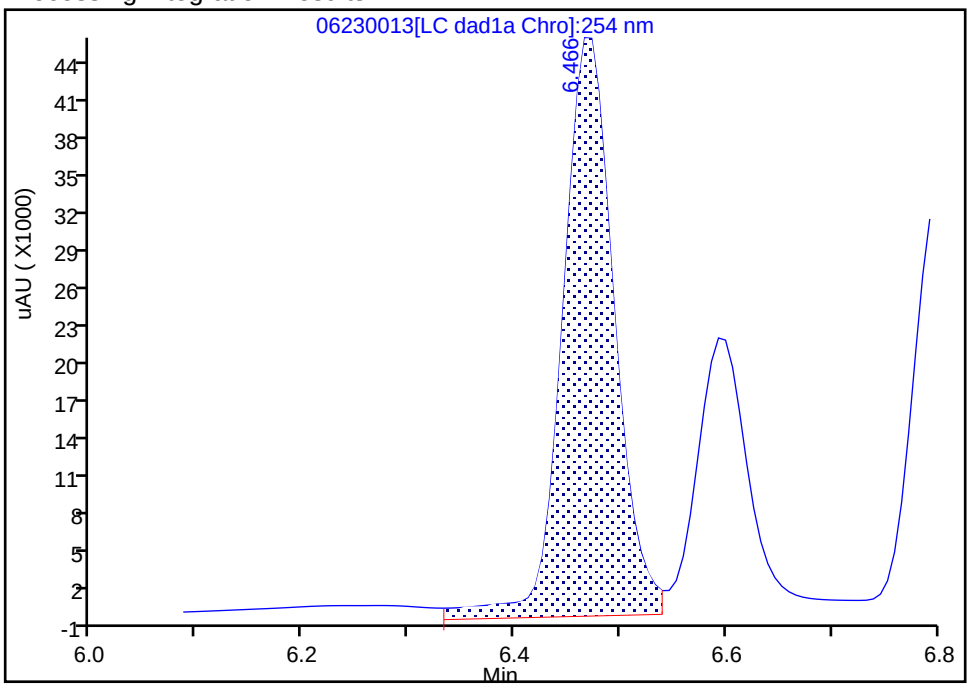
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d				
Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

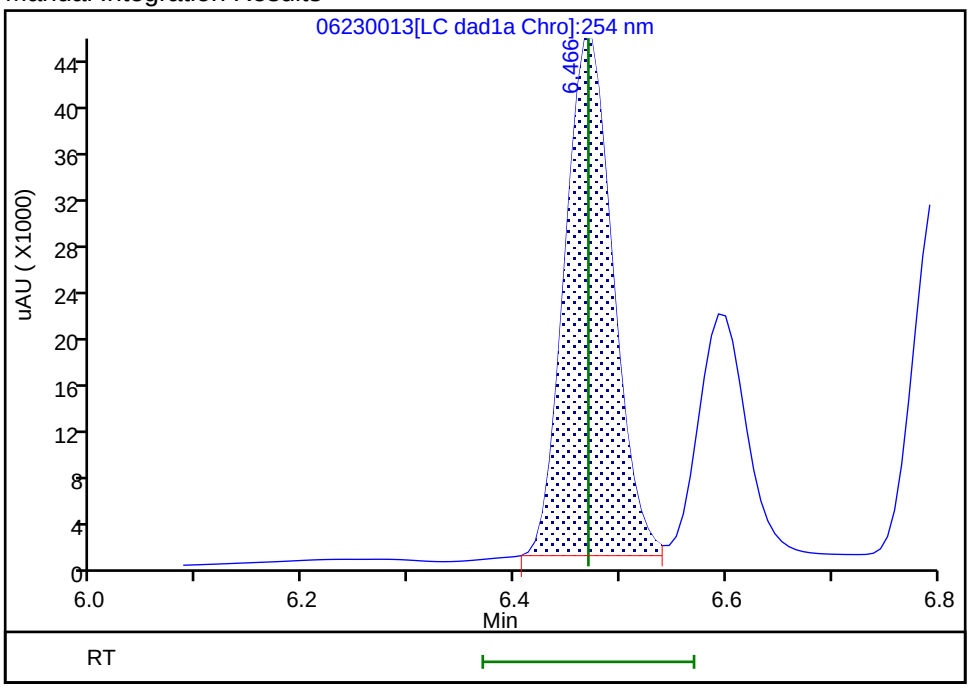
Processing Integration Results

RT: 6.47
Area: 155955
Amount: 0.779468
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 141821
Amount: 0.706417
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:12 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

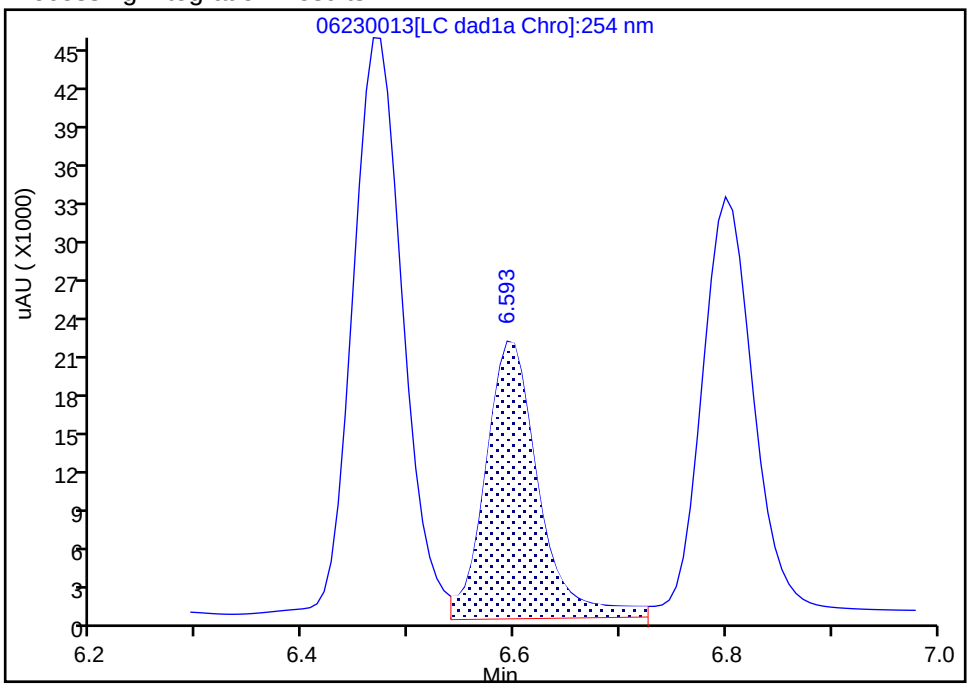
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Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

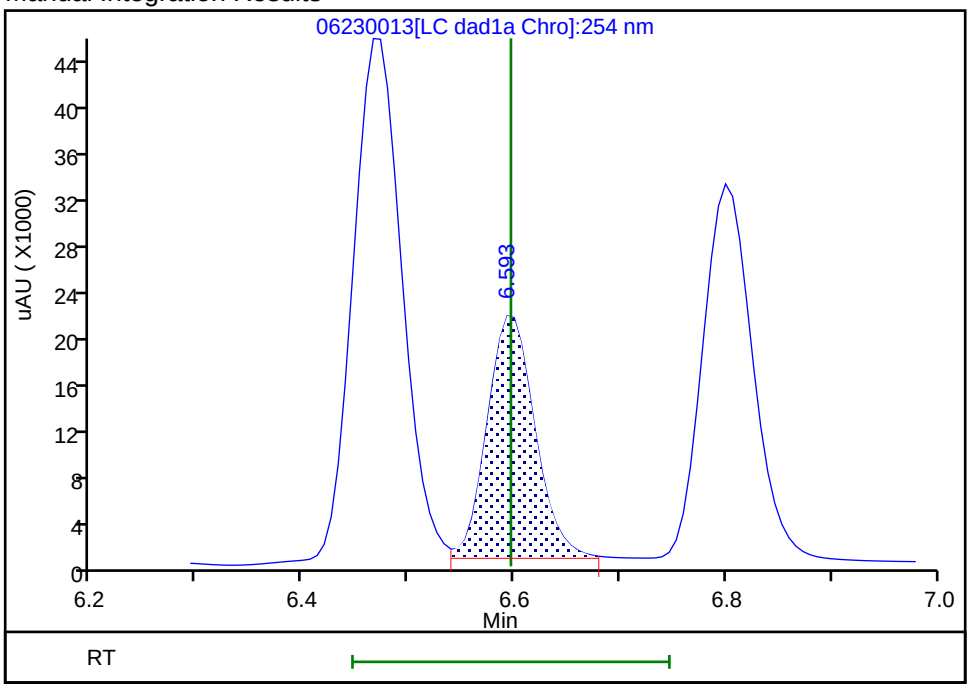
Processing Integration Results

RT: 6.59
Area: 75772
Amount: 0.790781
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 65593
Amount: 0.695907
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:13 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

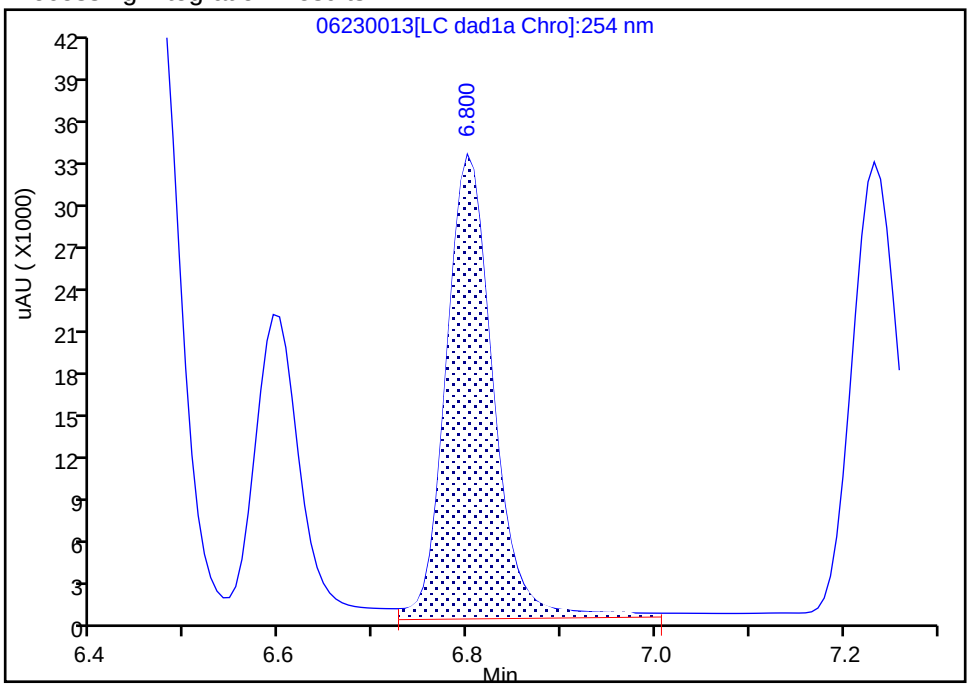
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d				
Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

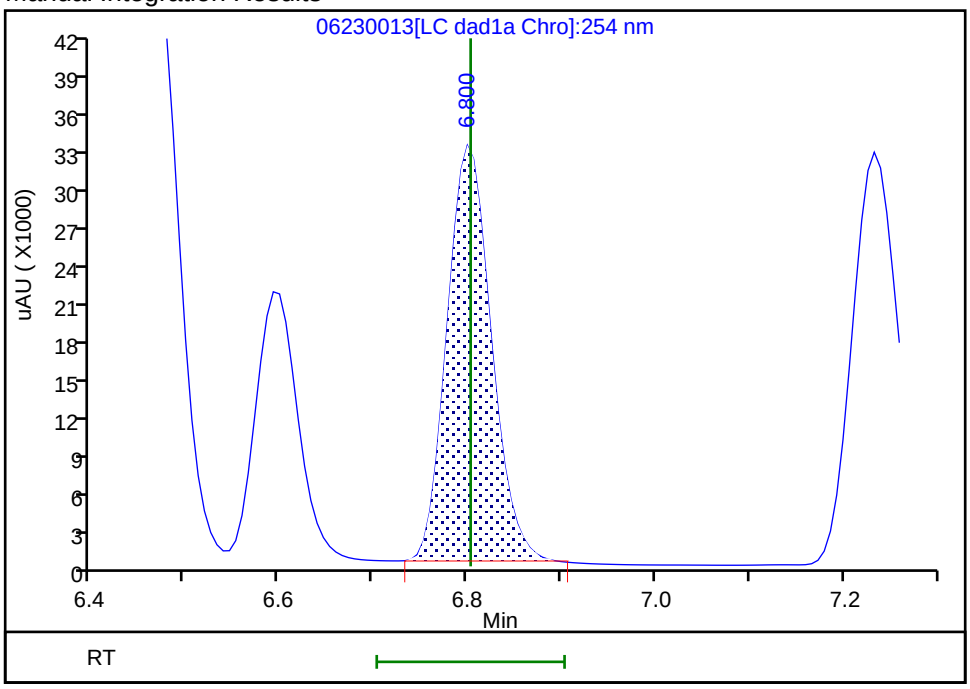
Processing Integration Results

RT: 6.80
Area: 113702
Amount: 0.773362
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 104556
Amount: 0.723607
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230014.D
Lims ID: IC INT/DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Jun-2023 19:02:45 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:49 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 19:38:20

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.470	0.004	76609	0.4012	0.3816	M
4 HMX	1	6.600	6.597	0.003	35849	0.4000	0.3803	M
6 DNX	1	6.807	6.803	0.004	57208	0.4004	0.3959	M
7 MNX	1	7.240	7.237	0.003	62440	0.4668	0.4502	
8 RDX	1	7.627	7.623	0.004	42514	0.4000	0.3848	
9 2,4,6-Trinitrophenol	1	8.020	8.030	-0.010	31468	0.4000	0.4041	
$ 10 1,2-Dinitrobenzene	1	8.594	8.590	0.004	50062	0.4000	0.4040	
11 1,3,5-Trinitrobenzene	1	8.714	8.710	0.004	89063	0.4000	0.4122	
12 1,3-Dinitrobenzene	1	9.340	9.336	0.004	118059	0.4000	0.4025	
13 Nitrobenzene	1	9.713	9.710	0.003	76555	0.4000	0.3973	
14 3,5-Dinitroaniline	1	9.947	9.943	0.004	90451	0.4000	0.4023	
15 Tetryl	1	10.087	10.083	0.004	67629	0.4000	0.4043	
16 Nitroglycerin	2	10.540	10.536	0.004	270481	4.00	4.18	
17 2,4,6-Trinitrotoluene	1	10.980	10.976	0.004	82972	0.4000	0.4049	
18 4-Amino-2,6-dinitrotoluene	1	11.180	11.170	0.010	59989	0.4000	0.4011	
19 2-Amino-4,6-dinitrotoluene	1	11.433	11.423	0.010	77156	0.4000	0.3983	
20 2,6-Dinitrotoluene	1	11.587	11.576	0.011	57368	0.4000	0.4022	
21 2,4-Dinitrotoluene	1	11.753	11.743	0.010	118425	0.4000	0.4005	
22 o-Nitrotoluene	1	12.587	12.570	0.017	49671	0.4000	0.3938	
23 p-Nitrotoluene	1	13.007	12.983	0.024	42626	0.4000	0.3872	
24 m-Nitrotoluene	1	13.580	13.556	0.024	54401	0.4000	0.3974	
25 PETN	2	14.760	14.723	0.037	290067	4.00	4.03	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	40.00	Units: uL
8330 DMT_00013	Amount Added:	20.00	Units: uL

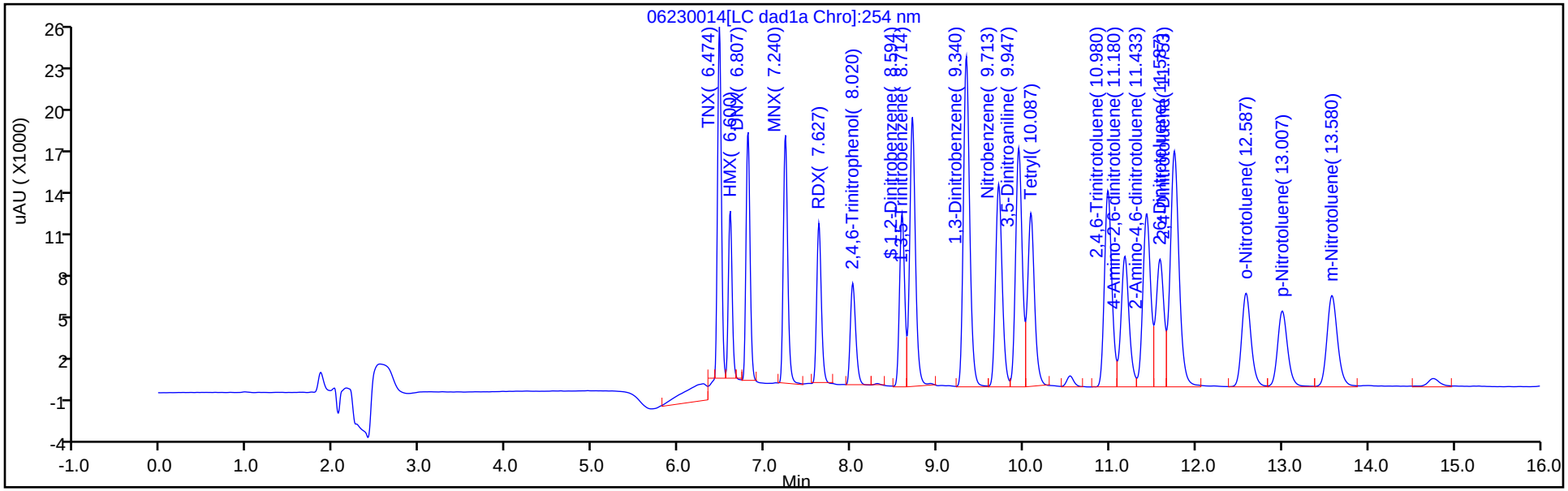
Report Date: 24-Jun-2023 12:55:49 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

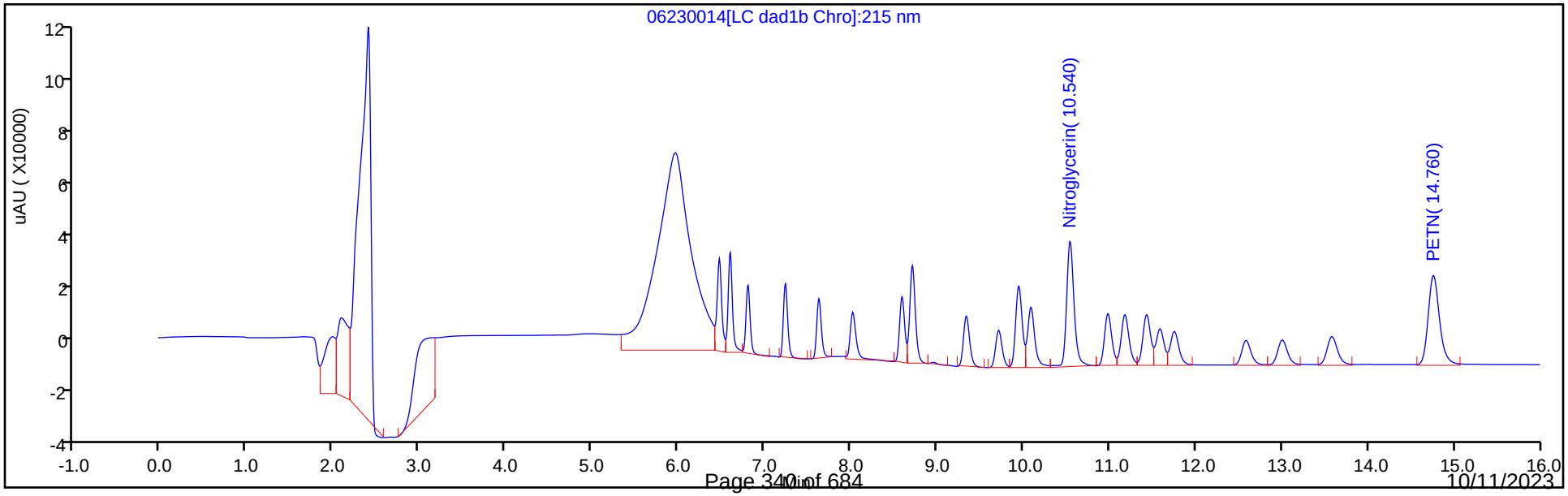
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d

Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

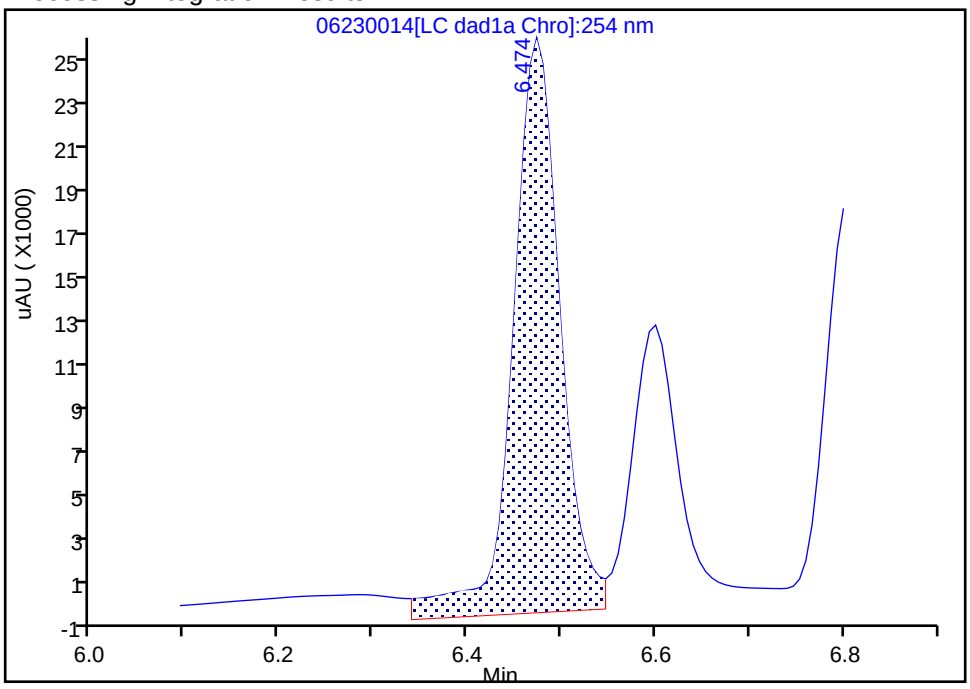
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

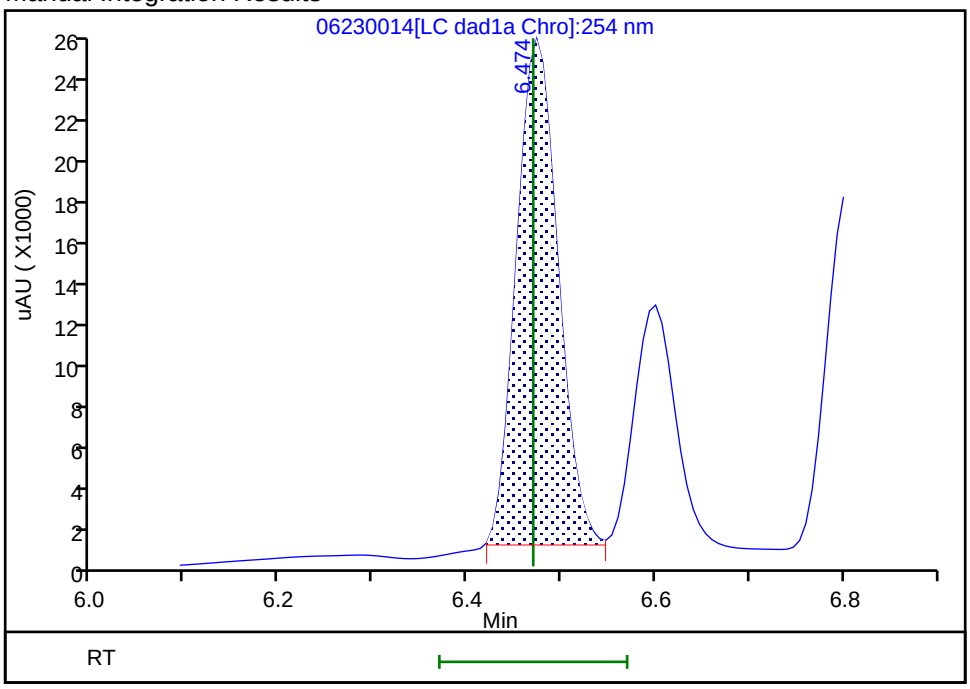
Processing Integration Results

RT: 6.47
Area: 91599
Amount: 0.456417
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 76609
Amount: 0.381593
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

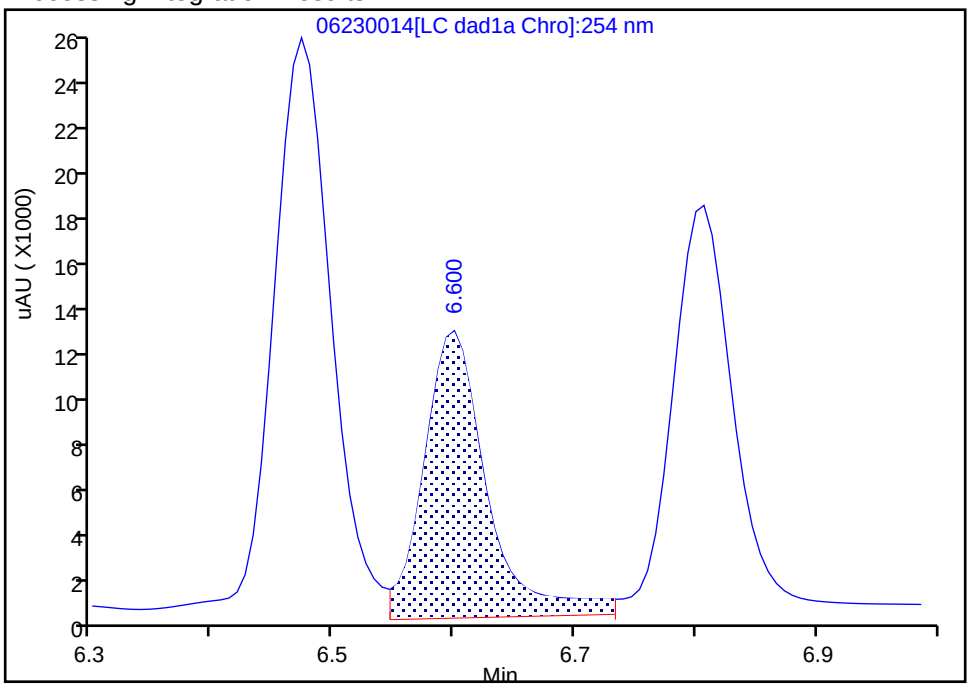
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

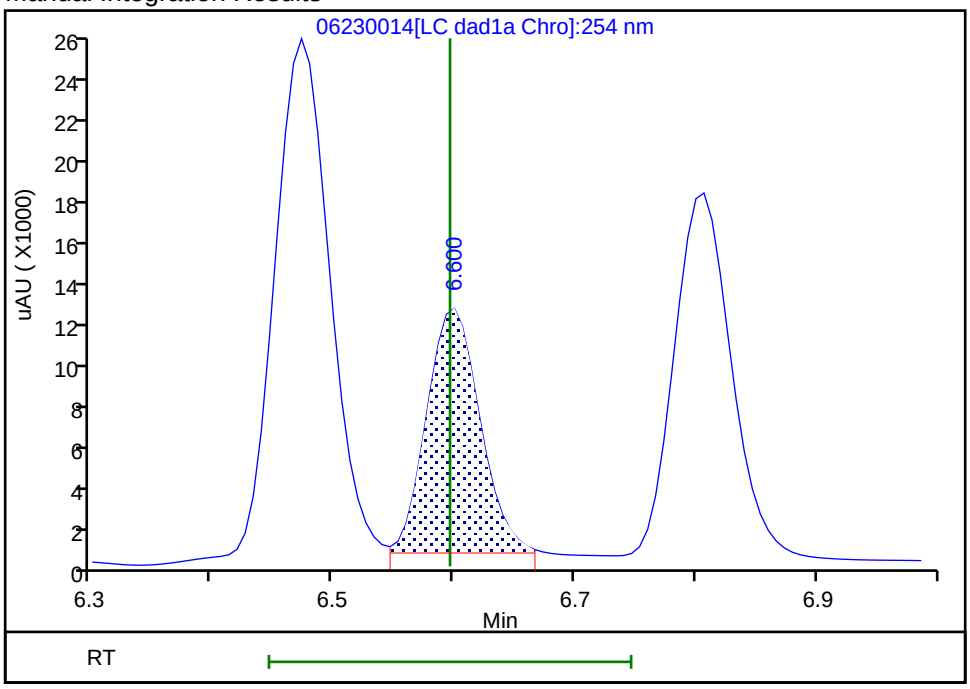
Processing Integration Results

RT: 6.60
Area: 46317
Amount: 0.478320
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 35849
Amount: 0.380339
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:10 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

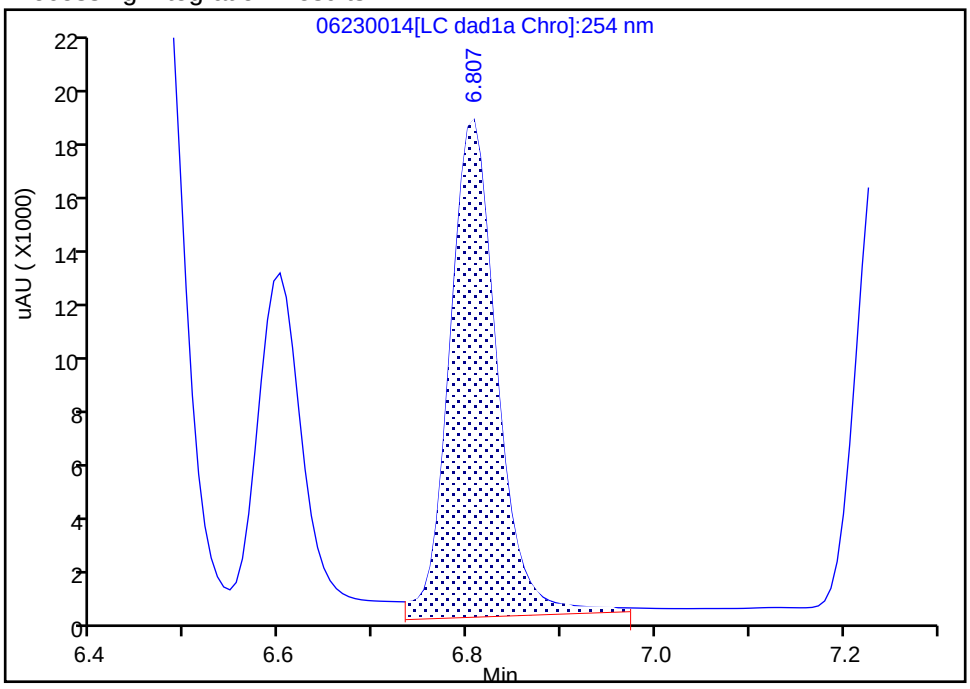
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

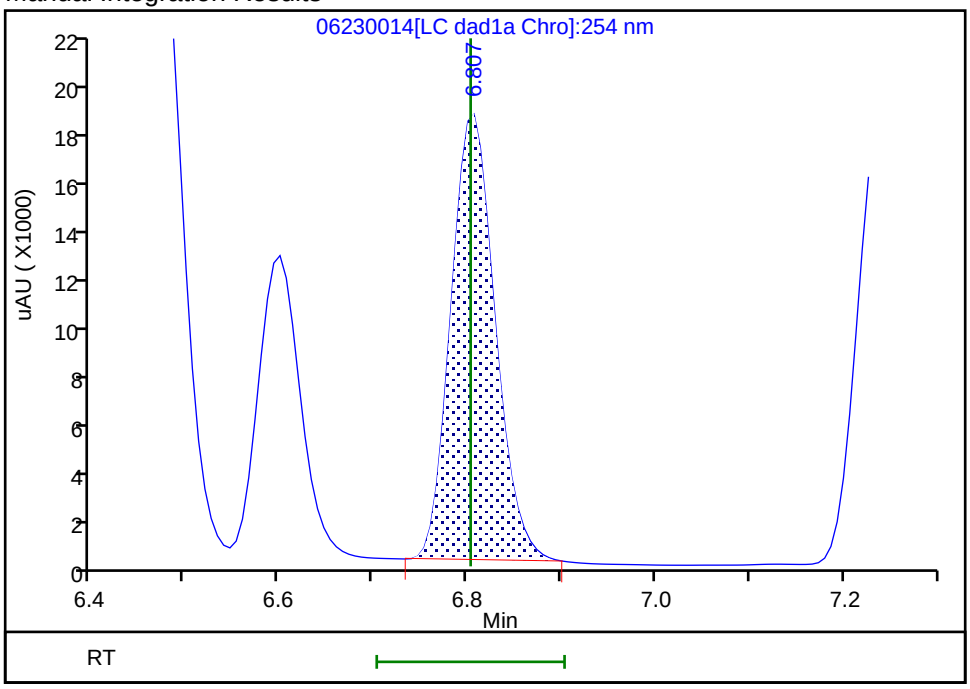
Processing Integration Results

RT: 6.81
Area: 63610
Amount: 0.433034
Amount Units: ug/mL



Manual Integration Results

RT: 6.81
Area: 57208
Amount: 0.395923
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:16 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230015.D
Lims ID: IC INT/DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Jun-2023 19:25:40 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:49 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:05:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.470	0.008	49970	0.2508	0.2489	M
4 HMX	1	6.598	6.597	0.001	23321	0.2500	0.2474	M
6 DNX	1	6.805	6.803	0.002	36397	0.2503	0.2519	M
7 MNX	1	7.238	7.237	0.001	39495	0.2918	0.2848	
8 RDX	1	7.625	7.623	0.002	27039	0.2500	0.2447	
9 2,4,6-Trinitrophenol	1	8.025	8.030	-0.005	19262	0.2500	0.2474	
$ 10 1,2-Dinitrobenzene	1	8.591	8.590	0.001	31068	0.2500	0.2507	
11 1,3,5-Trinitrobenzene	1	8.711	8.710	0.001	55138	0.2500	0.2552	
12 1,3-Dinitrobenzene	1	9.338	9.336	0.002	73356	0.2500	0.2501	
13 Nitrobenzene	1	9.711	9.710	0.001	47571	0.2500	0.2469	
14 3,5-Dinitroaniline	1	9.945	9.943	0.002	55971	0.2500	0.2491	
15 Tetryl	1	10.085	10.083	0.002	42107	0.2500	0.2518	
16 Nitroglycerin	2	10.545	10.536	0.009	161167	2.50	2.49	
17 2,4,6-Trinitrotoluene	1	10.985	10.976	0.009	51584	0.2500	0.2517	
18 4-Amino-2,6-dinitrotoluene	1	11.178	11.170	0.008	36921	0.2500	0.2469	
19 2-Amino-4,6-dinitrotoluene	1	11.431	11.423	0.008	48118	0.2500	0.2484	
20 2,6-Dinitrotoluene	1	11.585	11.576	0.009	35503	0.2500	0.2489	
21 2,4-Dinitrotoluene	1	11.758	11.743	0.015	73049	0.2500	0.2470	
22 o-Nitrotoluene	1	12.585	12.570	0.015	30758	0.2500	0.2439	
23 p-Nitrotoluene	1	13.011	12.983	0.028	26234	0.2500	0.2383	
24 m-Nitrotoluene	1	13.585	13.556	0.029	33854	0.2500	0.2458	
25 PETN	2	14.765	14.723	0.042	179178	2.50	2.49	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	25.00	Units: uL
8330 DMT_00013	Amount Added:	12.50	Units: uL

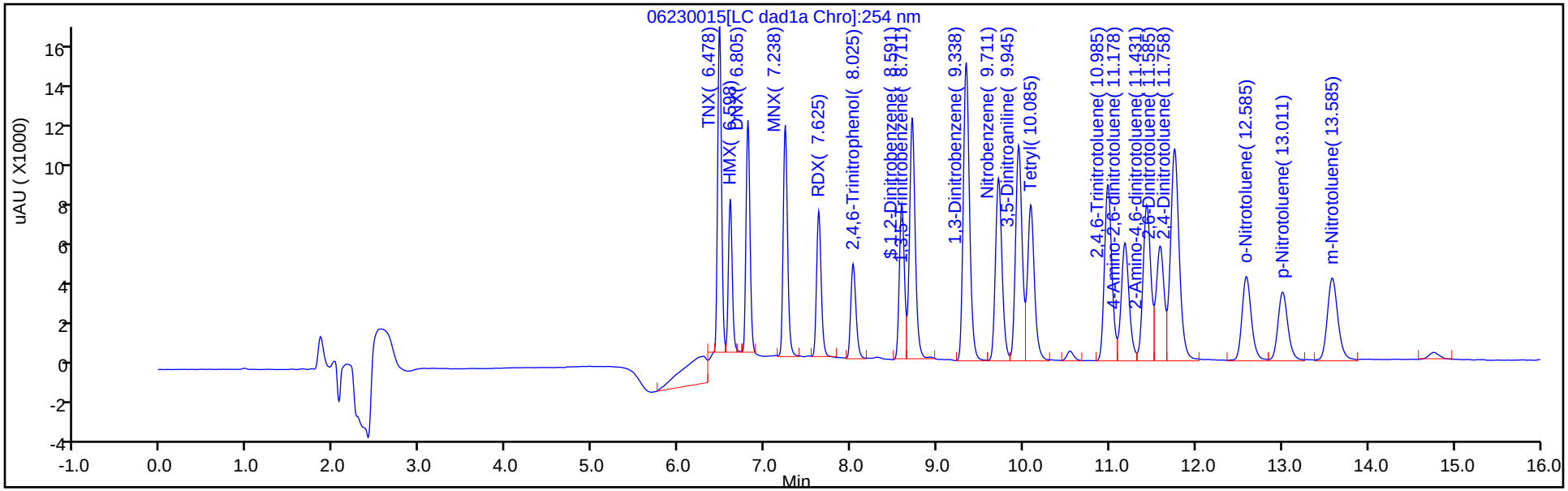
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Eurofins Denver

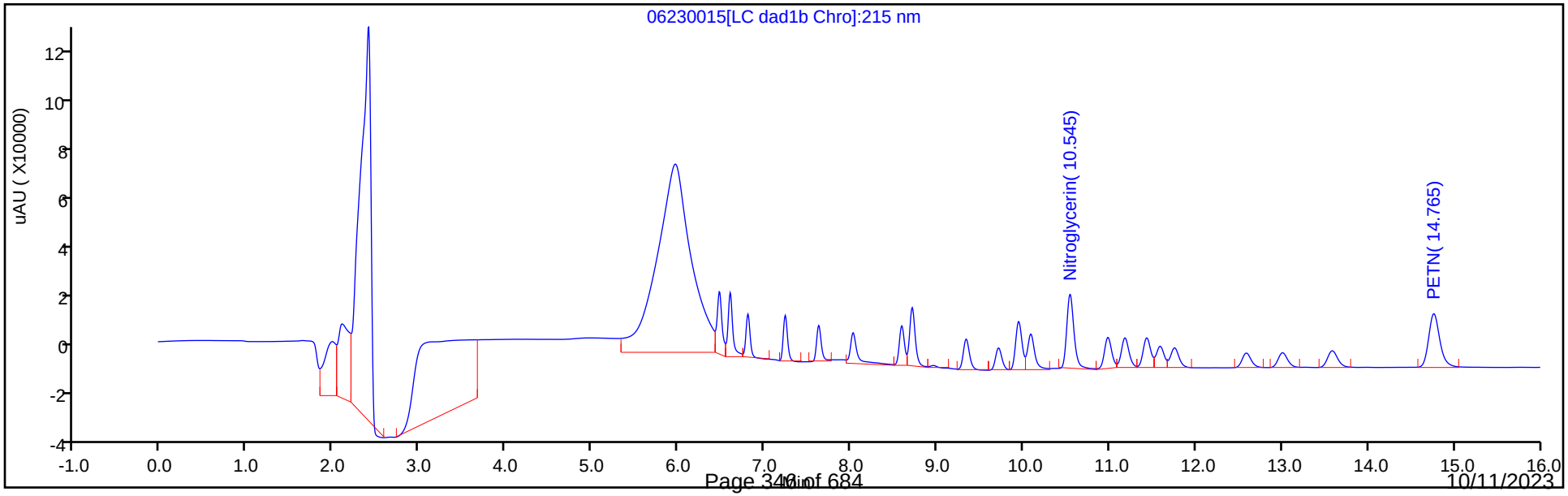
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Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 5			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

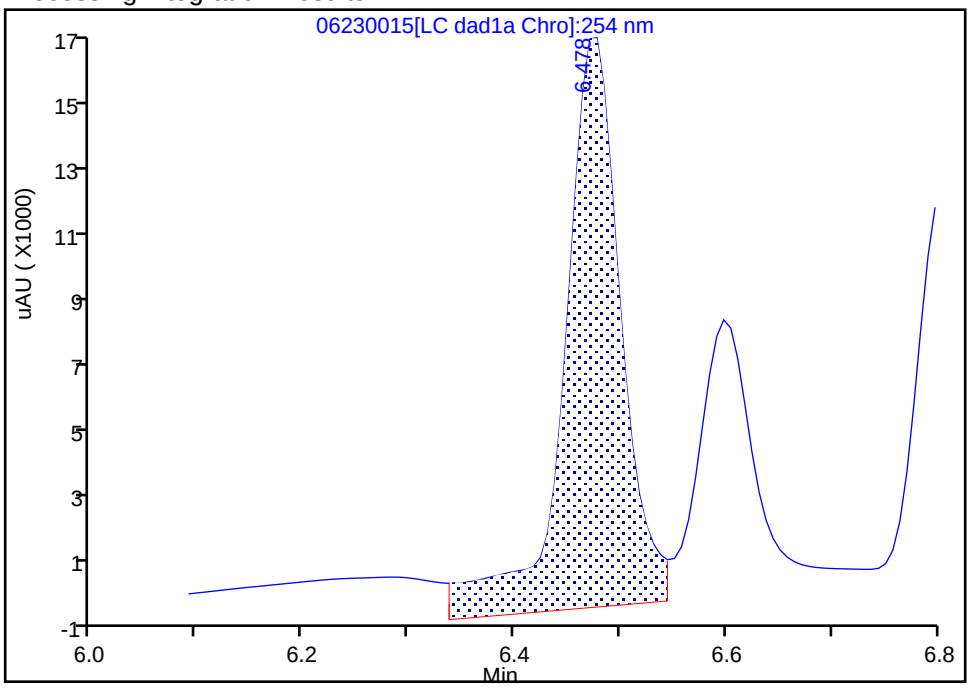
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d				
Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

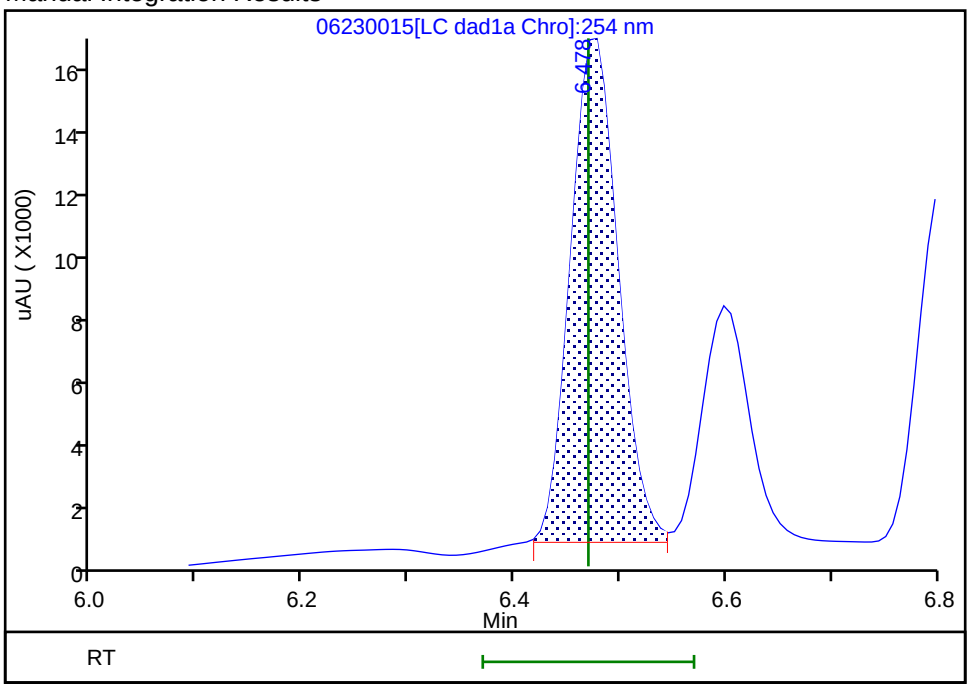
Processing Integration Results

RT: 6.48
Area: 64305
Amount: 0.315734
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 49970
Amount: 0.248903
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:50 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

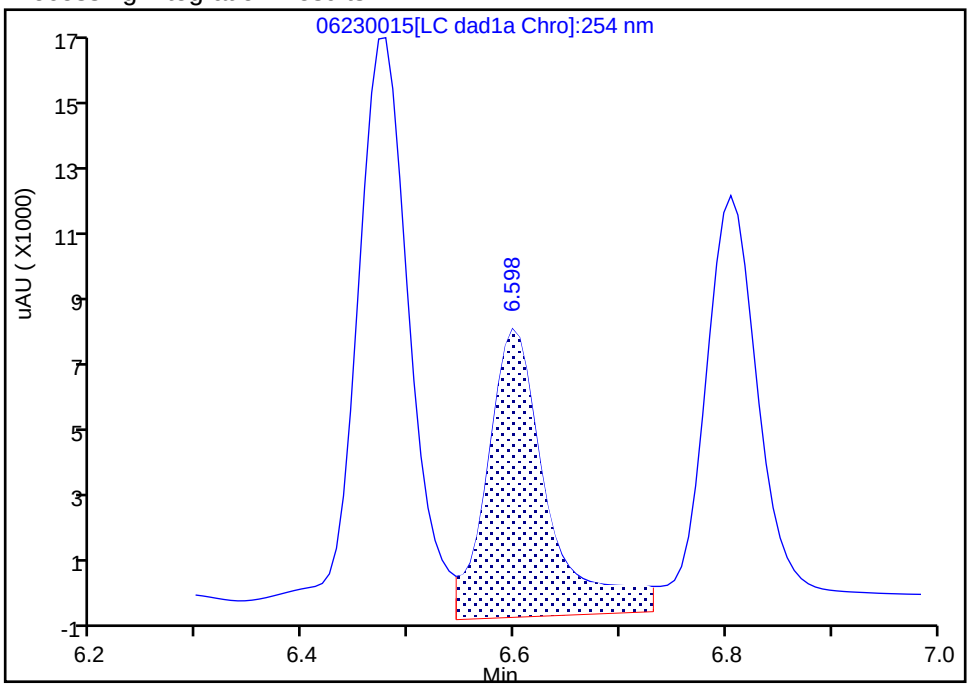
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d				
Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

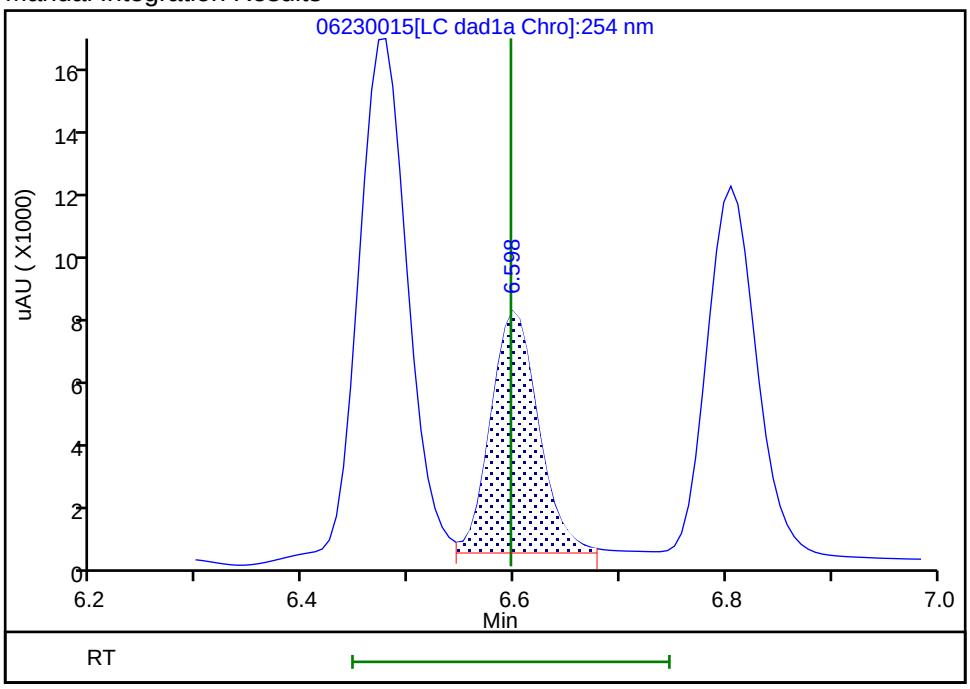
Processing Integration Results

RT: 6.60
Area: 32748
Amount: 0.334028
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 23321
Amount: 0.247424
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:51 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

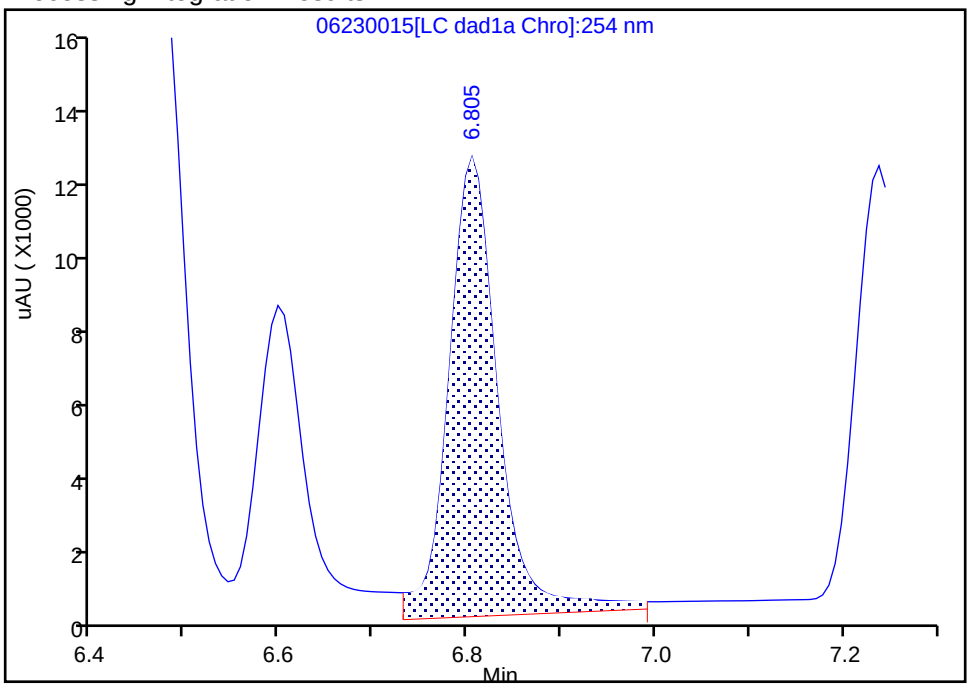
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d				
Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

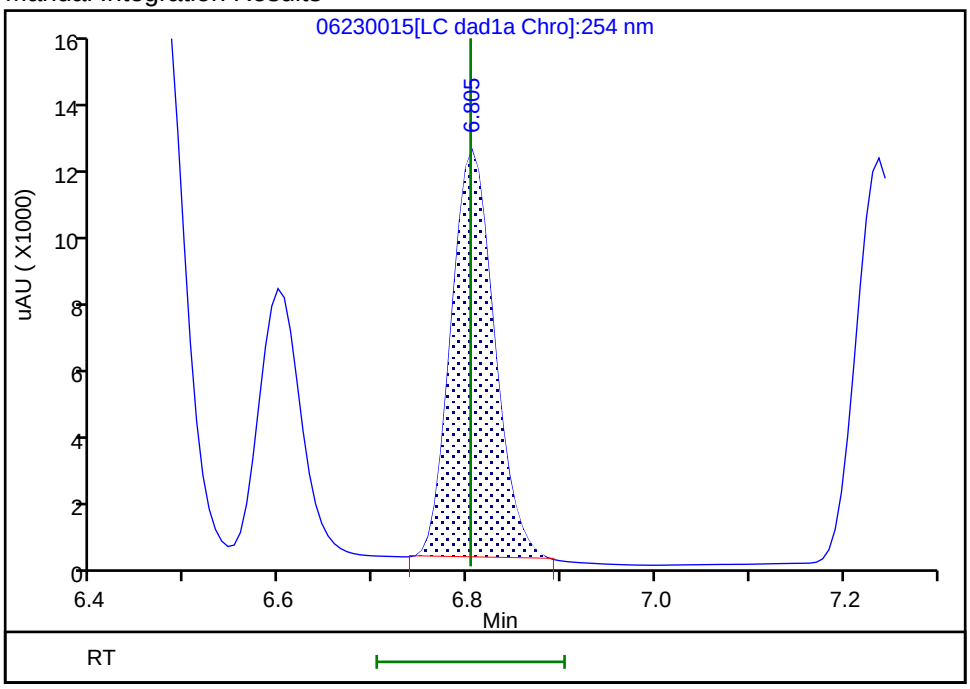
Processing Integration Results

RT: 6.80
Area: 43745
Amount: 0.293331
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 36397
Amount: 0.251895
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:53 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230016.D
Lims ID: IC INT/DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Jun-2023 19:48:35 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:50 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:36:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.470	6.470	0.000	20003	0.1003	0.0996	M
4 HMX	1	6.597	6.597	0.000	9201	0.1000	0.0976	M
6 DNX	1	6.803	6.803	0.000	14726	0.1001	0.1019	M
7 MNX	1	7.237	7.237	0.000	16173	0.1167	0.1166	
8 RDX	1	7.623	7.623	0.000	11457	0.1000	0.1037	
9 2,4,6-Trinitrophenol	1	8.030	8.030	0.000	7951	0.1000	0.1021	
$ 10 1,2-Dinitrobenzene	1	8.590	8.590	0.000	12783	0.1000	0.1032	
11 1,3,5-Trinitrobenzene	1	8.710	8.710	0.000	21684	0.1000	0.1004	
12 1,3-Dinitrobenzene	1	9.336	9.336	0.000	29890	0.1000	0.1019	
13 Nitrobenzene	1	9.710	9.710	0.000	19309	0.1000	0.1002	
14 3,5-Dinitroaniline	1	9.943	9.943	0.000	22486	0.1000	0.1004	
15 Tetryl	1	10.083	10.083	0.000	16961	0.1000	0.1014	
16 Nitroglycerin	2	10.536	10.536	0.000	65270	1.00	1.01	
17 2,4,6-Trinitrotoluene	1	10.976	10.976	0.000	20907	0.1000	0.1020	
18 4-Amino-2,6-dinitrotoluene	1	11.170	11.170	0.000	15058	0.1000	0.1007	
19 2-Amino-4,6-dinitrotoluene	1	11.423	11.423	0.000	19302	0.1000	0.0996	
20 2,6-Dinitrotoluene	1	11.576	11.576	0.000	14495	0.1000	0.1016	
21 2,4-Dinitrotoluene	1	11.743	11.743	0.000	29811	0.1000	0.1008	
22 o-Nitrotoluene	1	12.570	12.570	0.000	12912	0.1000	0.1024	
23 p-Nitrotoluene	1	12.983	12.983	0.000	11057	0.1000	0.1004	
24 m-Nitrotoluene	1	13.556	13.556	0.000	14001	0.1000	0.0993	
25 PETN	2	14.723	14.723	0.000	72200	1.00	1.00	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	10.00	Units: uL
8330 DMT_00013	Amount Added:	5.00	Units: uL

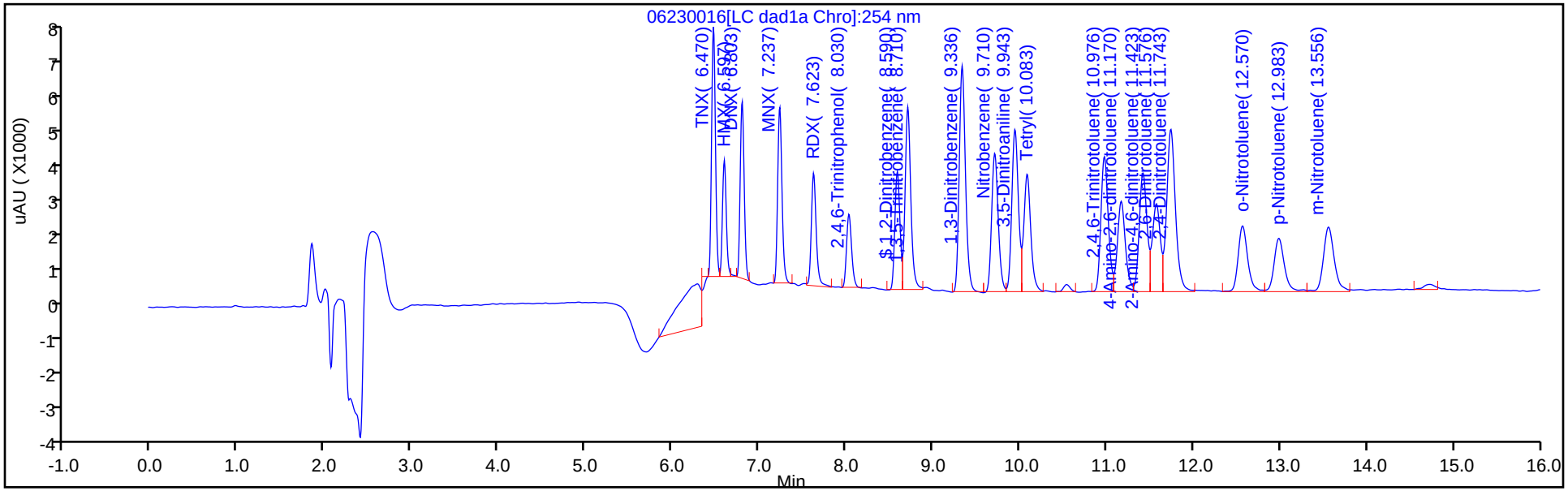
Report Date: 24-Jun-2023 12:55:50 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

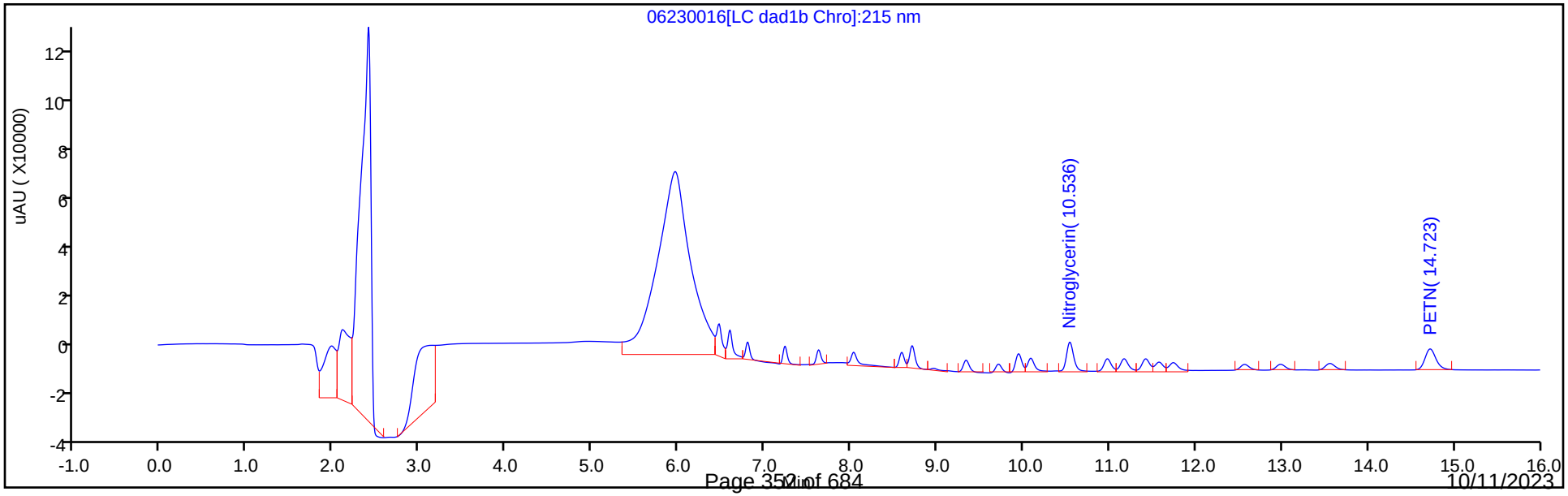
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230016.d

Injection Date:	23-Jun-2023 19:48:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

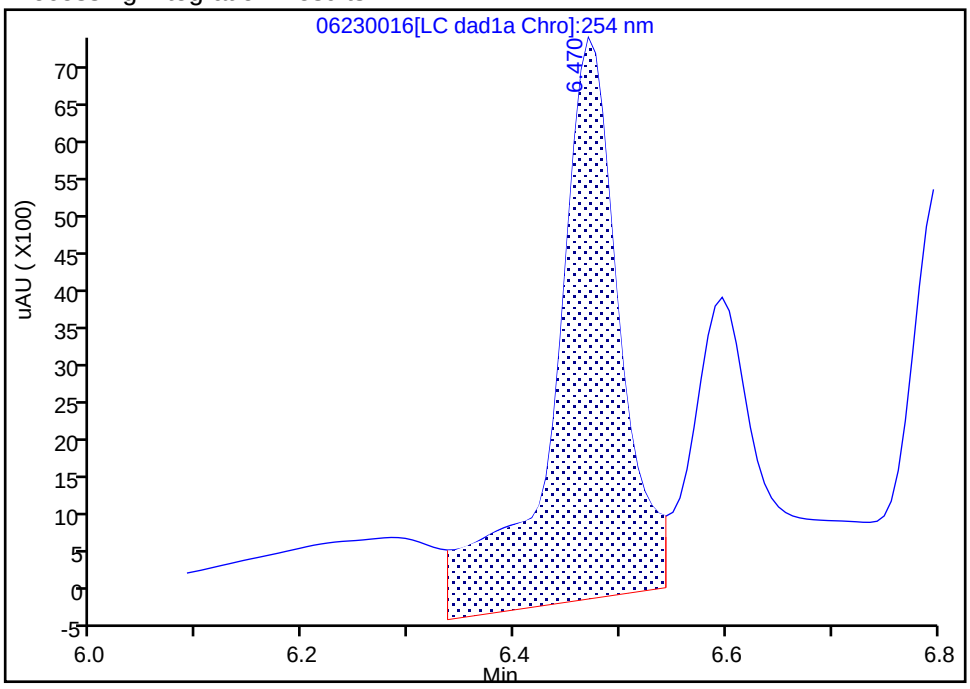
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Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

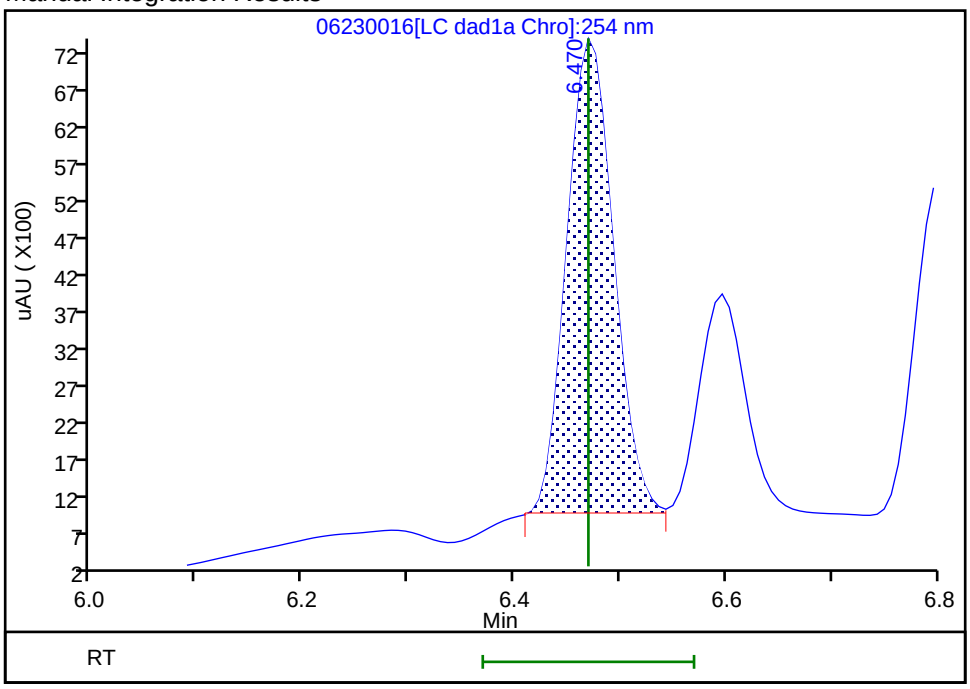
Processing Integration Results

RT: 6.47
Area: 32992
Amount: 0.149030
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 20003
Amount: 0.099636
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

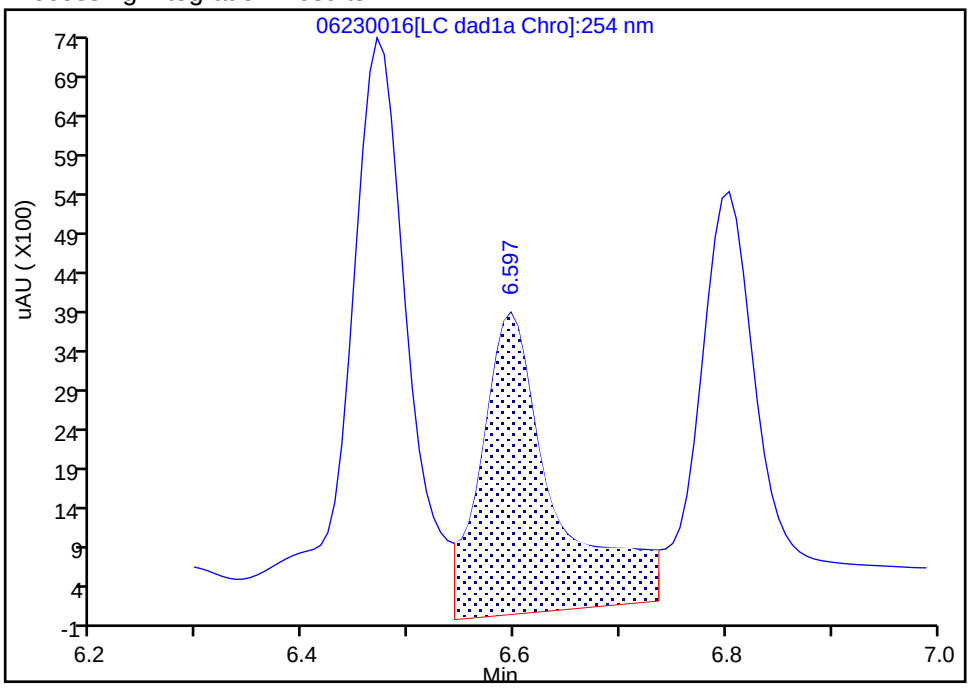
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Injection Date:	23-Jun-2023 19:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

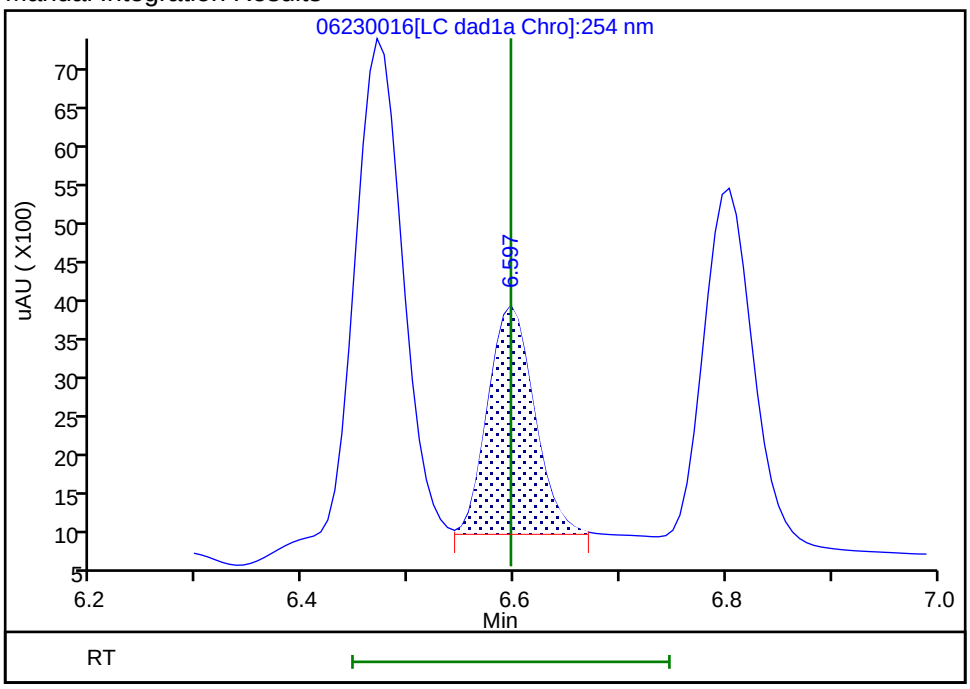
Processing Integration Results

RT: 6.60
Area: 18398
Amount: 0.150991
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 9201
Amount: 0.097618
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:25 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

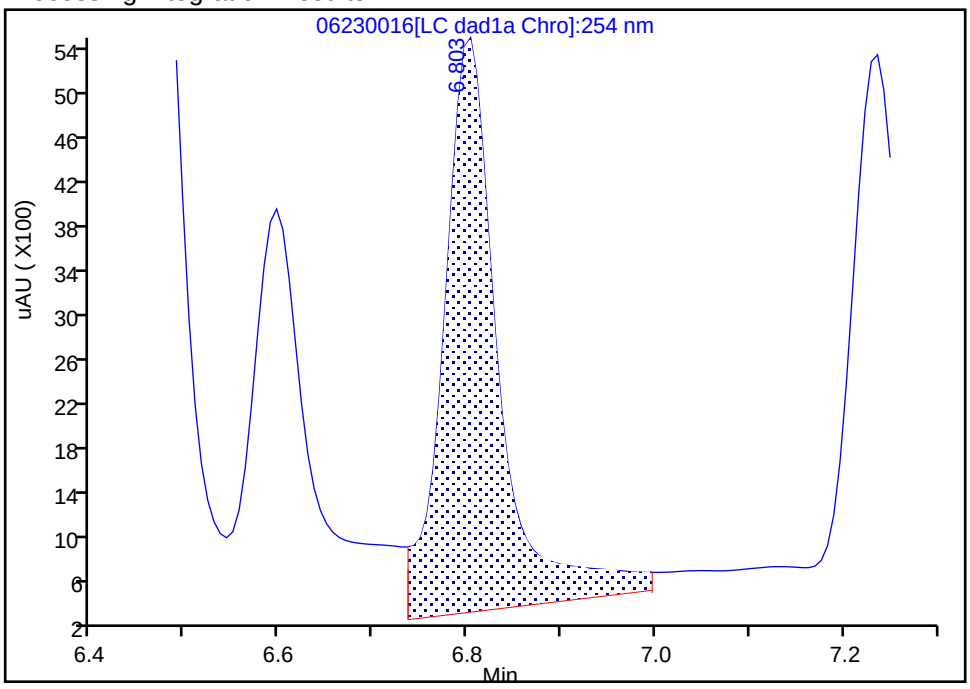
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Injection Date:	23-Jun-2023 19:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

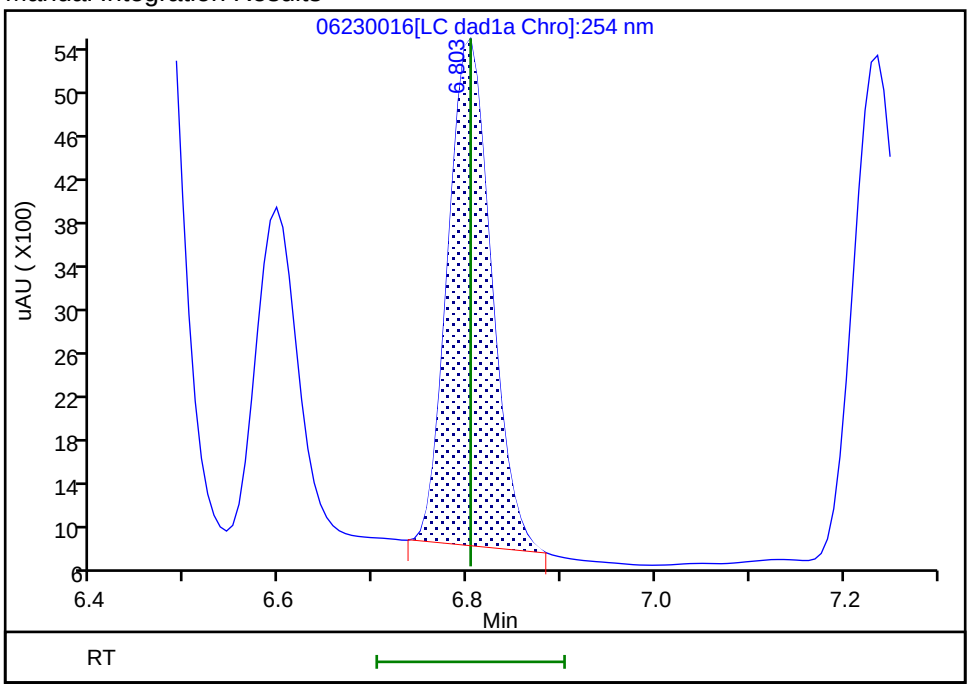
Processing Integration Results

RT: 6.80
Area: 21037
Amount: 0.133837
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 14726
Amount: 0.101915
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:28 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230017.D
Lims ID: IC INT/DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Jun-2023 20:11:32 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:50 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:36:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.472	6.470	0.002	9975	0.0502	0.0497	M
4 HMX	1	6.598	6.597	0.001	4496	0.0500	0.0477	M
6 DNX	1	6.798	6.803	-0.005	7299	0.0501	0.0505	M
7 MNX	1	7.232	7.237	-0.005	8151	0.0584	0.0588	
8 RDX	1	7.625	7.623	0.002	5472	0.0500	0.0495	
9 2,4,6-Trinitrophenol	1	8.032	8.030	0.002	3979	0.0500	0.0511	
$ 10 1,2-Dinitrobenzene	1	8.585	8.590	-0.005	6250	0.0500	0.0504	
11 1,3,5-Trinitrobenzene	1	8.712	8.710	0.002	10805	0.0500	0.0500	
12 1,3-Dinitrobenzene	1	9.338	9.336	0.002	14684	0.0500	0.0501	
13 Nitrobenzene	1	9.711	9.710	0.001	9561	0.0500	0.0496	
14 3,5-Dinitroaniline	1	9.945	9.943	0.002	11168	0.0500	0.0502	
15 Tetryl	1	10.085	10.083	0.002	8232	0.0500	0.0492	
16 Nitroglycerin	2	10.538	10.536	0.002	31254	0.5000	0.4834	
17 2,4,6-Trinitrotoluene	1	10.978	10.976	0.002	10269	0.0500	0.0501	
18 4-Amino-2,6-dinitrotoluene	1	11.178	11.170	0.008	7431	0.0500	0.0497	
19 2-Amino-4,6-dinitrotoluene	1	11.431	11.423	0.008	9604	0.0500	0.0496	
20 2,6-Dinitrotoluene	1	11.585	11.576	0.009	7160	0.0500	0.0502	
21 2,4-Dinitrotoluene	1	11.751	11.743	0.008	14800	0.0500	0.0500	
22 o-Nitrotoluene	1	12.585	12.570	0.015	6403	0.0500	0.0508	
23 p-Nitrotoluene	1	13.005	12.983	0.022	5543	0.0500	0.0504	
24 m-Nitrotoluene	1	13.578	13.556	0.022	7282	0.0500	0.0498	
25 PETN	2	14.751	14.723	0.028	35921	0.5000	0.4988	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	5.00	Units: uL
8330 DMT_00013	Amount Added:	2.50	Units: uL

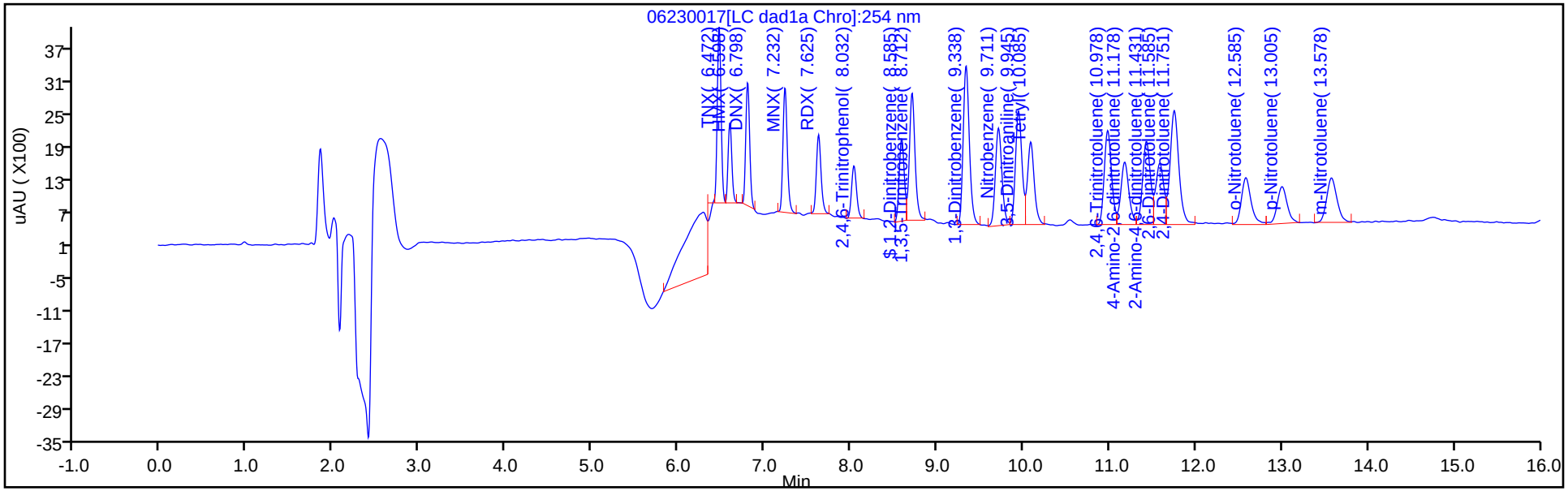
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Eurofins Denver

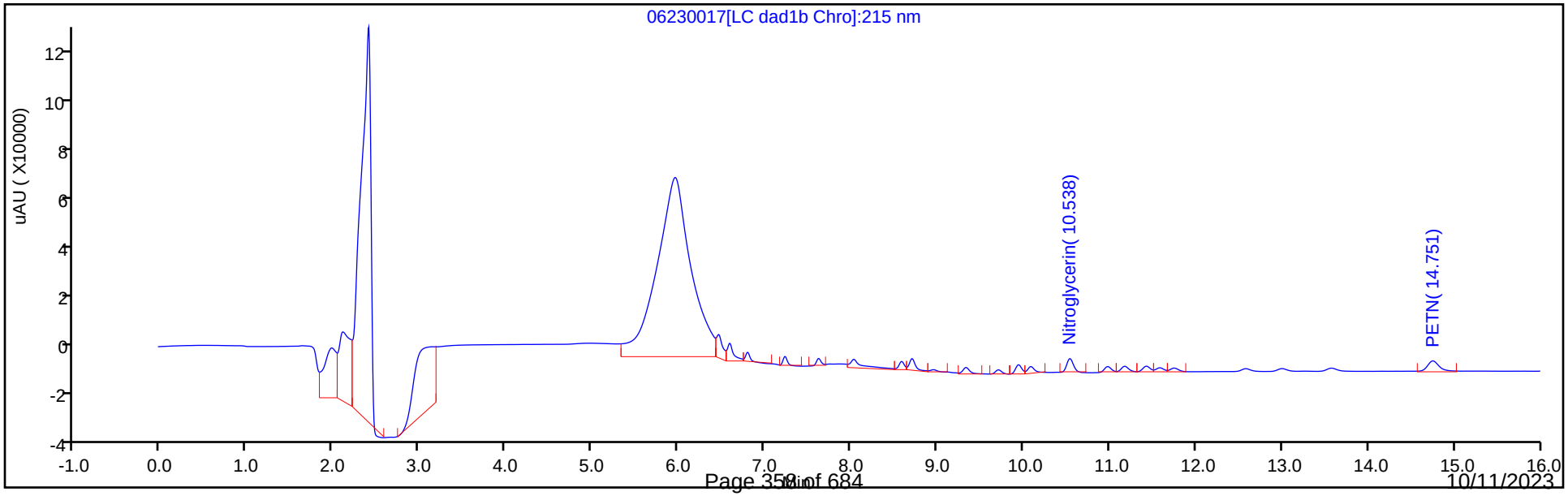
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d

Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 3			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

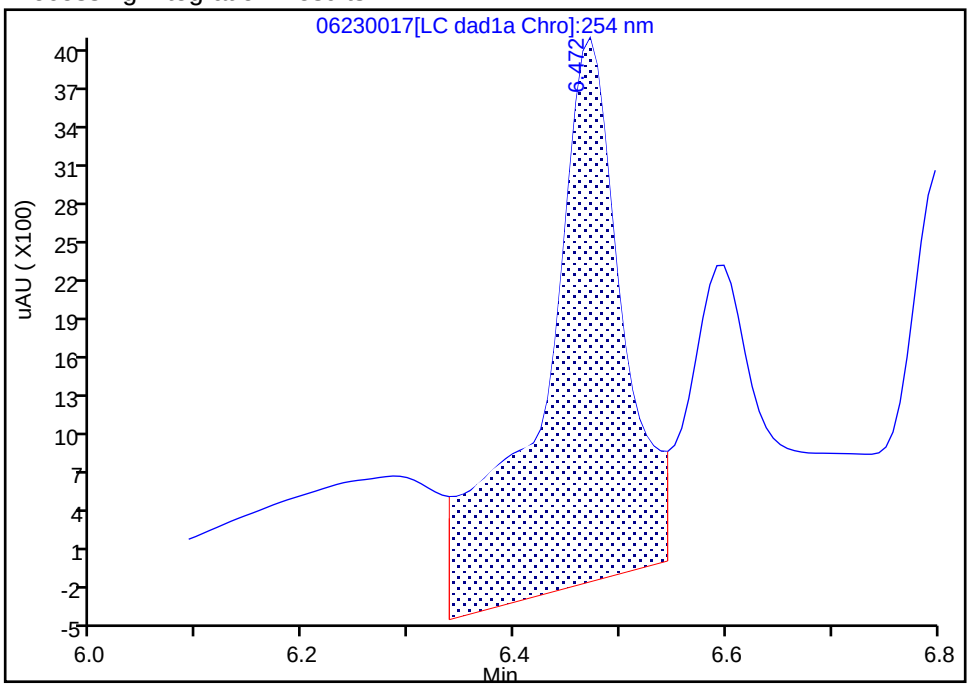
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d				
Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

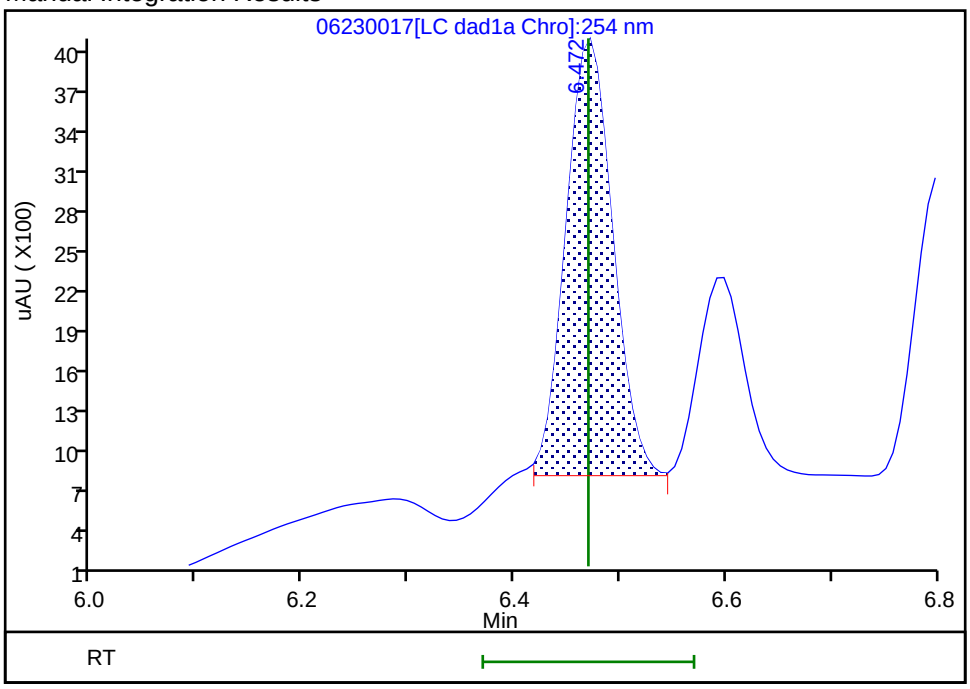
Processing Integration Results

RT: 6.47
Area: 22565
Amount: 0.100036
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 9975
Amount: 0.049686
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:36 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

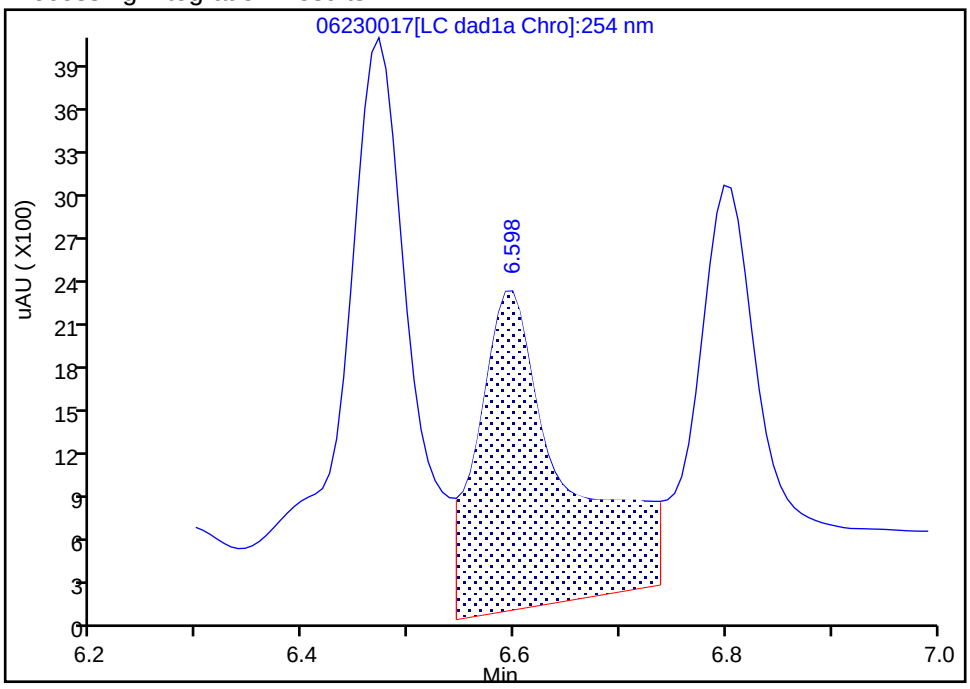
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Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

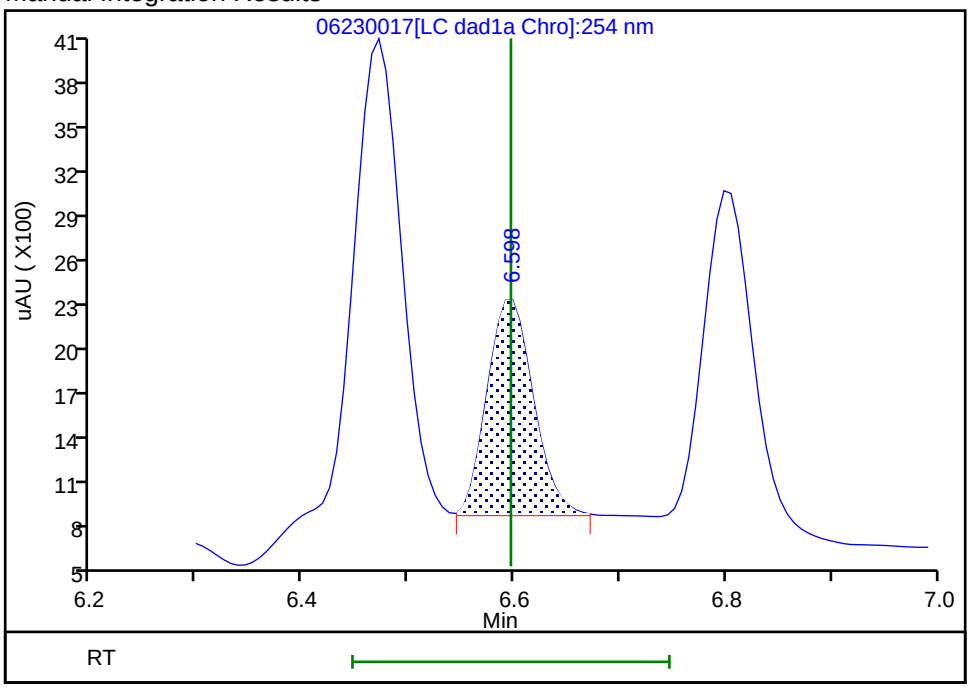
Processing Integration Results

RT: 6.60
Area: 12742
Amount: 0.114145
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 4496
Amount: 0.047700
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:38 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

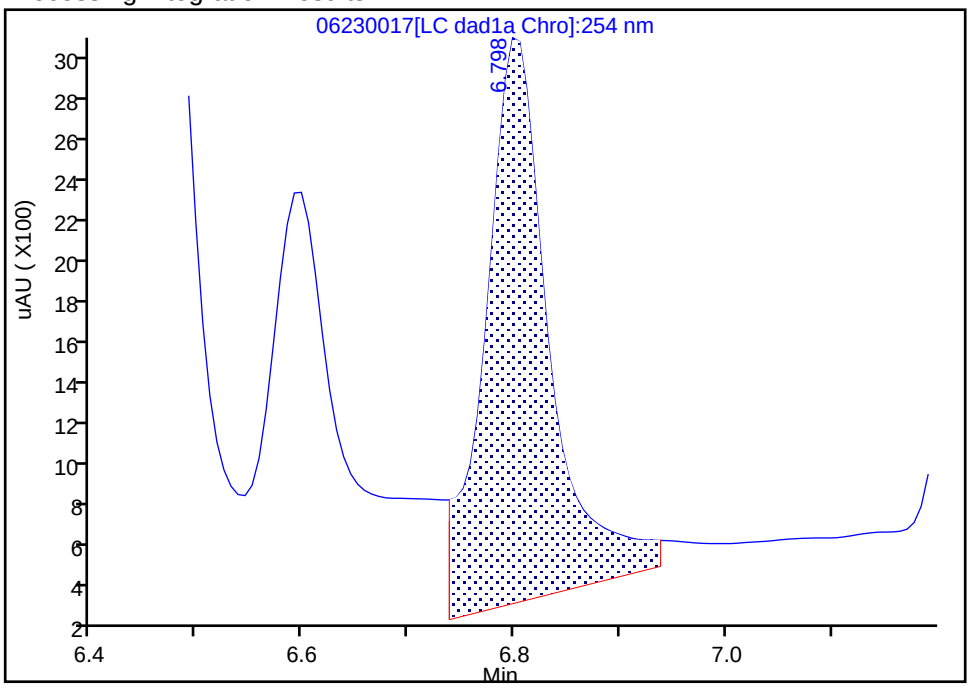
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Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

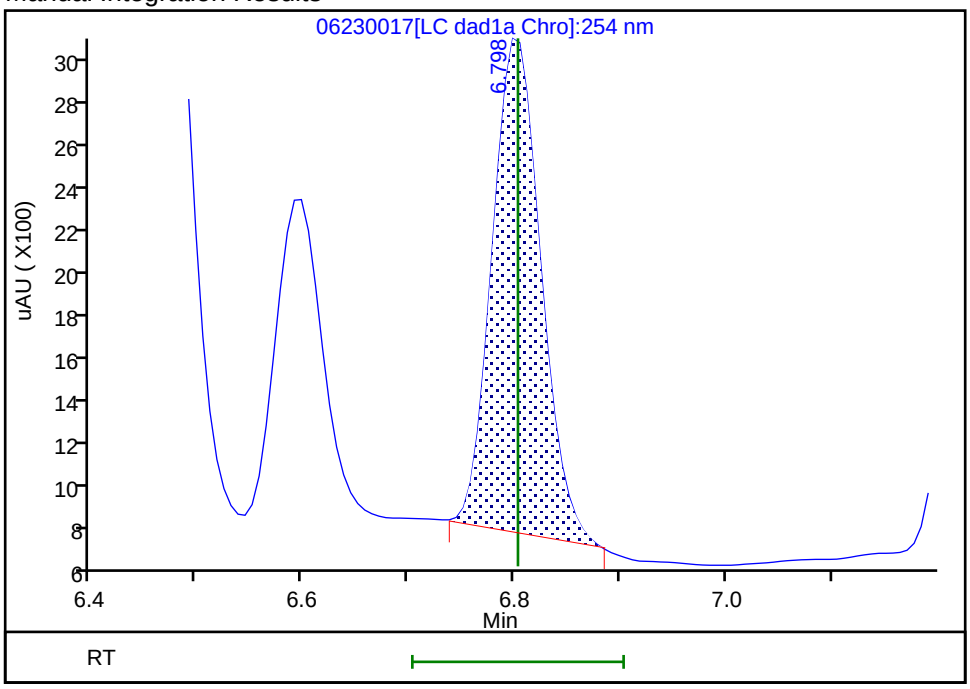
Processing Integration Results

RT: 6.80
Area: 11546
Amount: 0.074238
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 7299
Amount: 0.050515
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:41 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver

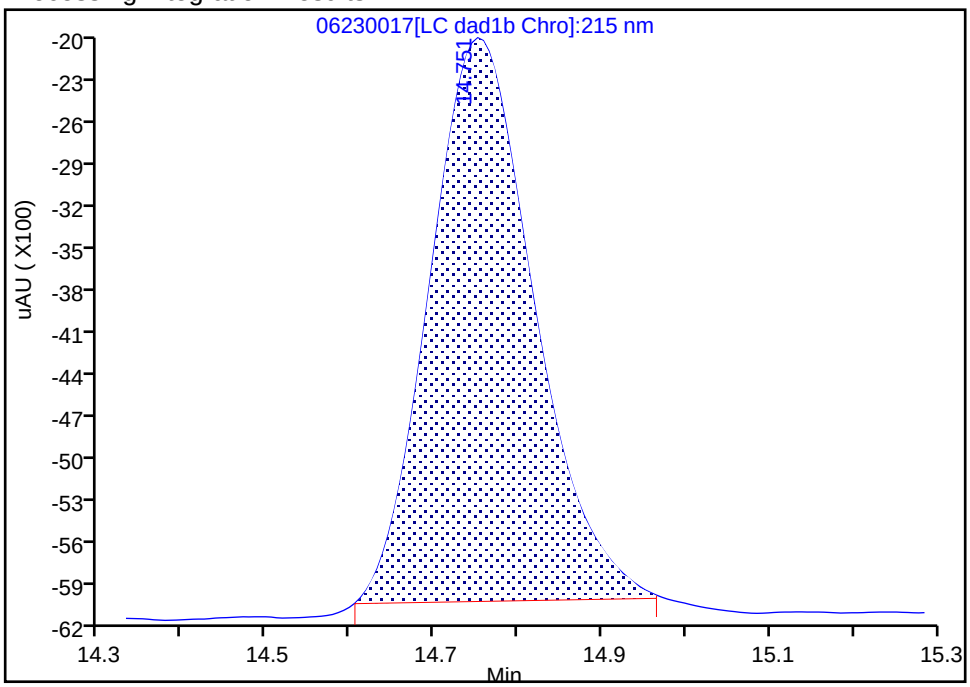
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d				
Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

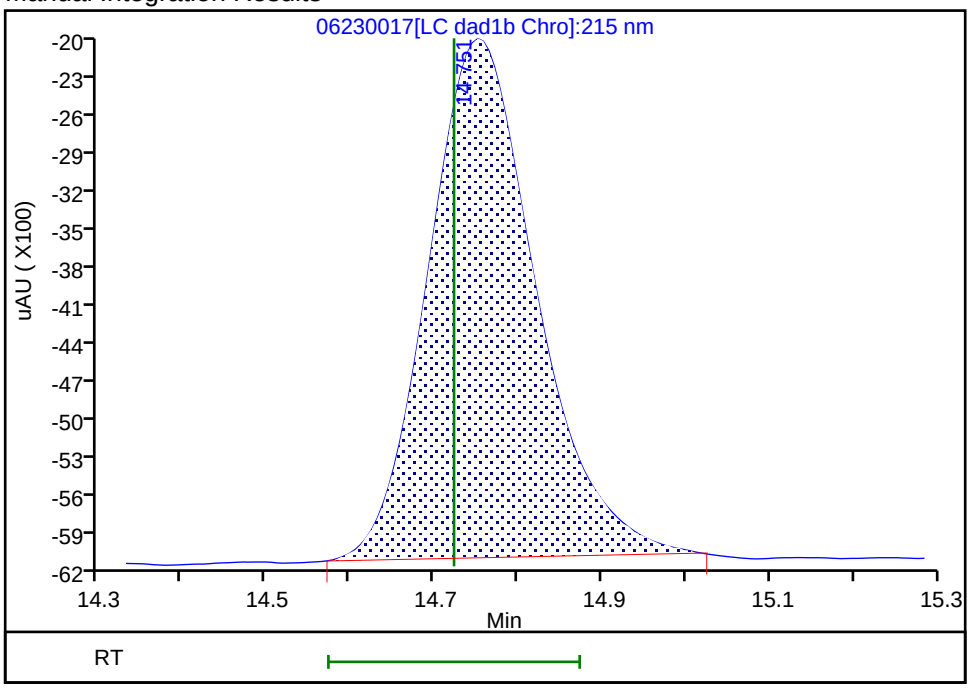
Processing Integration Results

RT: 14.75
Area: 34085
Amount: 0.477036
Amount Units: ug/mL



Manual Integration Results

RT: 14.75
Area: 35921
Amount: 0.498778
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:48 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230018.D
Lims ID: IC INT/DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Jun-2023 20:34:25 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:51 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:02:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.473	6.470	0.003	3897	0.0201	0.0194	M
4 HMX	1	6.593	6.597	-0.004	1960	0.0200	0.0208	M
6 DNX	1	6.799	6.803	-0.004	2620	0.0200	0.0181	M
7 MNX	1	7.233	7.237	-0.004	3155	0.0233	0.0227	
8 RDX	1	7.619	7.623	-0.004	2234	0.0200	0.0202	
9 2,4,6-Trinitrophenol	1	8.026	8.030	-0.004	1447	0.0200	0.0186	
$ 10 1,2-Dinitrobenzene	1	8.579	8.590	-0.011	2379	0.0200	0.0192	
11 1,3,5-Trinitrobenzene	1	8.699	8.710	-0.011	4083	0.0200	0.0189	
12 1,3-Dinitrobenzene	1	9.326	9.336	-0.010	5599	0.0200	0.0191	
13 Nitrobenzene	1	9.699	9.710	-0.011	3731	0.0200	0.0194	
14 3,5-Dinitroaniline	1	9.932	9.943	-0.011	4262	0.0200	0.0195	
15 Tetryl	1	10.066	10.083	-0.017	3248	0.0200	0.0194	
16 Nitroglycerin	2	10.526	10.536	-0.010	12682	0.2000	0.1962	
17 2,4,6-Trinitrotoluene	1	10.959	10.976	-0.017	3981	0.0200	0.0194	
18 4-Amino-2,6-dinitrotoluene	1	11.159	11.170	-0.011	3111	0.0200	0.0208	
19 2-Amino-4,6-dinitrotoluene	1	11.412	11.423	-0.011	3863	0.0200	0.0199	
20 2,6-Dinitrotoluene	1	11.566	11.576	-0.010	2916	0.0200	0.0204	
21 2,4-Dinitrotoluene	1	11.732	11.743	-0.011	5829	0.0200	0.0197	
22 o-Nitrotoluene	1	12.559	12.570	-0.011	2556	0.0200	0.0203	
23 p-Nitrotoluene	1	12.979	12.983	-0.004	2404	0.0200	0.0218	
24 m-Nitrotoluene	1	13.552	13.556	-0.004	3341	0.0200	0.0207	
25 PETN	2	14.719	14.723	-0.004	13637	0.2000	0.1894	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	2.00	Units: uL
8330 DMT_00013	Amount Added:	1.00	Units: uL

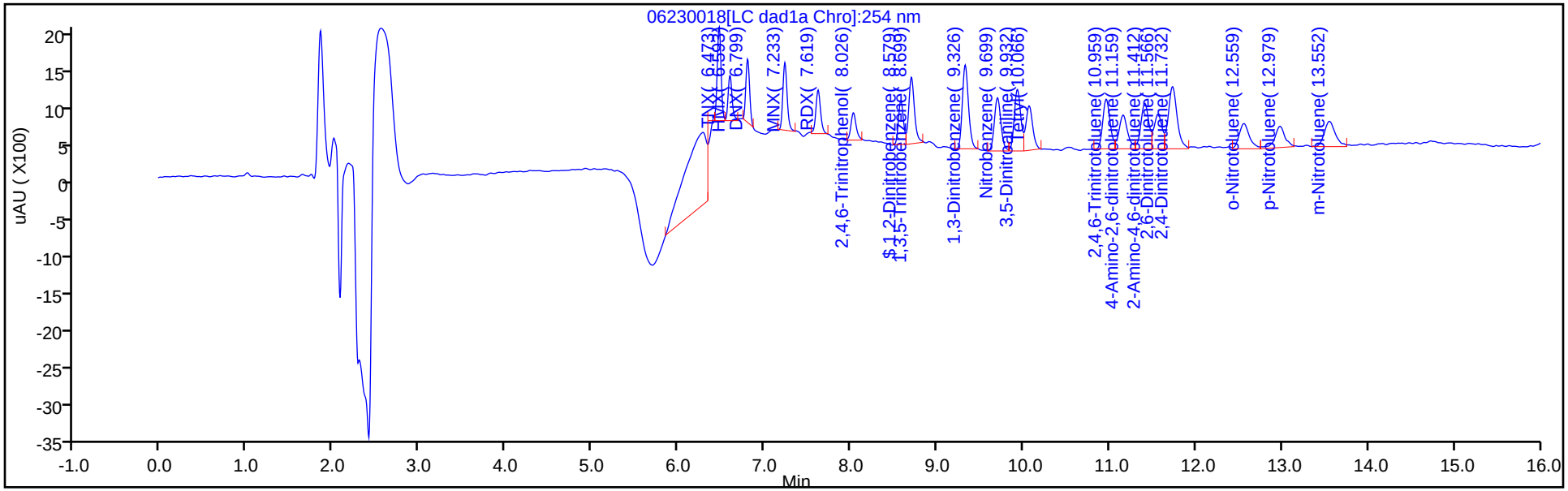
Report Date: 24-Jun-2023 12:55:51 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

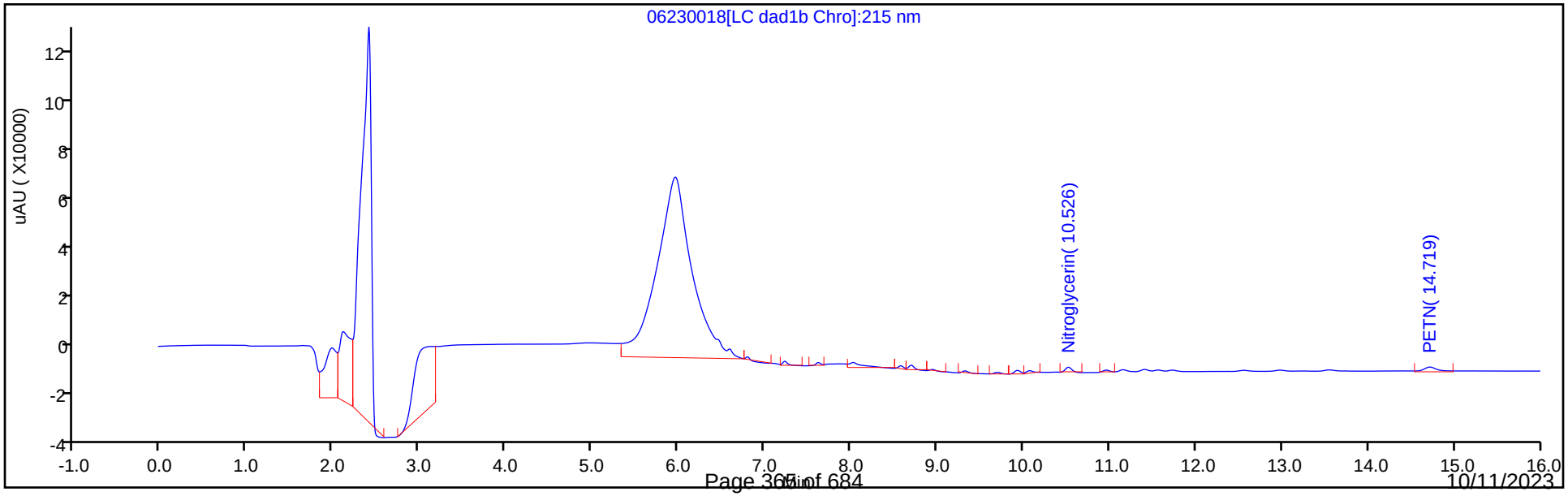
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d

Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

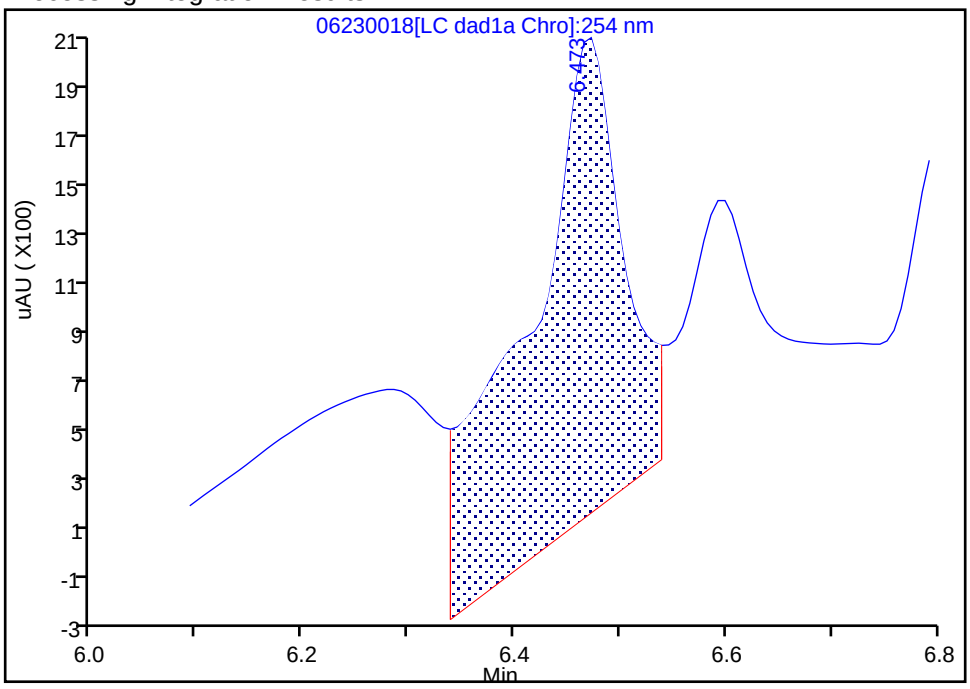
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Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

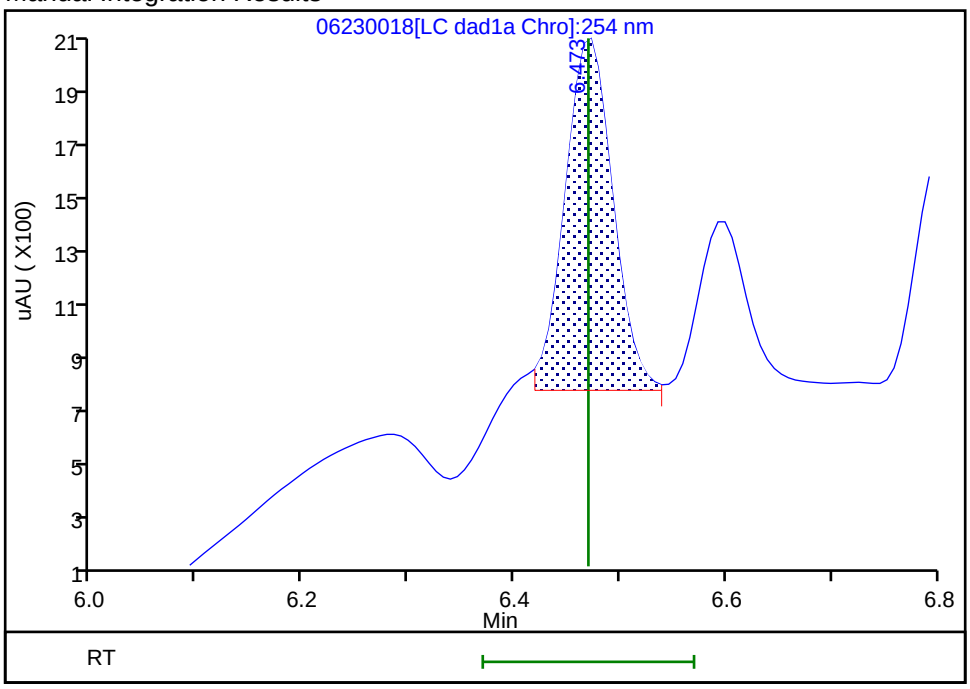
Processing Integration Results

RT: 6.47
Area: 12448
Amount: 0.050881
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 3897
Amount: 0.019411
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

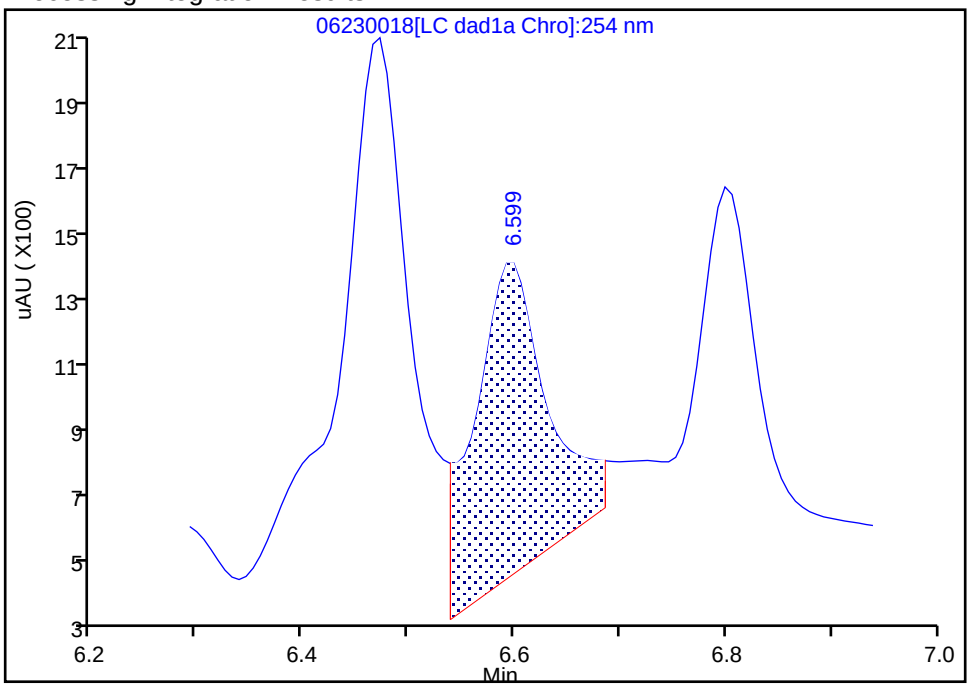
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

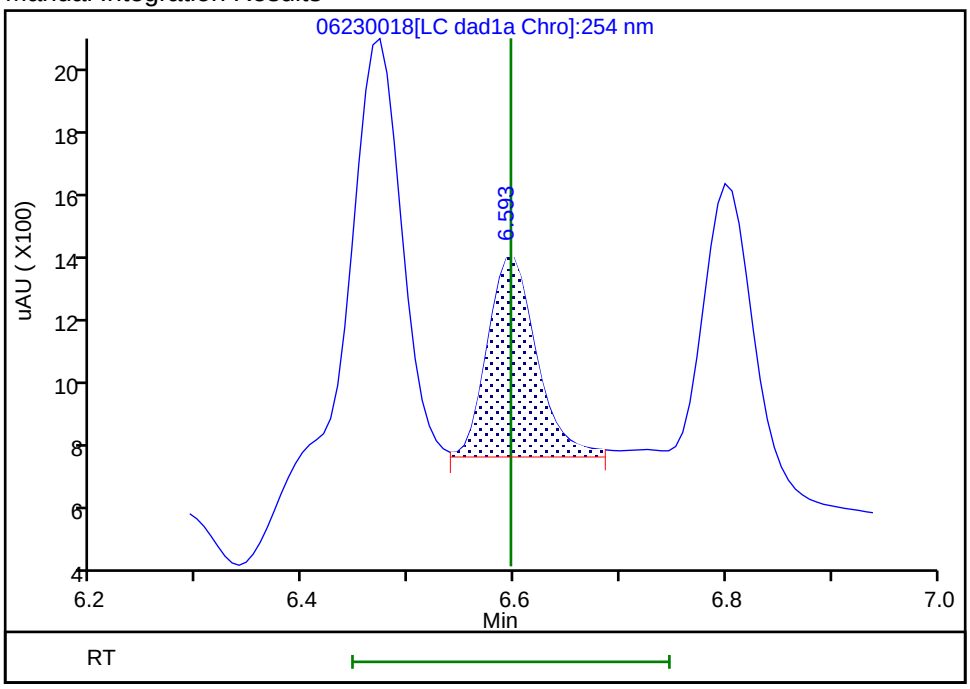
Processing Integration Results

RT: 6.60
Area: 4371
Amount: 0.039965
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 1960
Amount: 0.020795
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:06 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins Denver

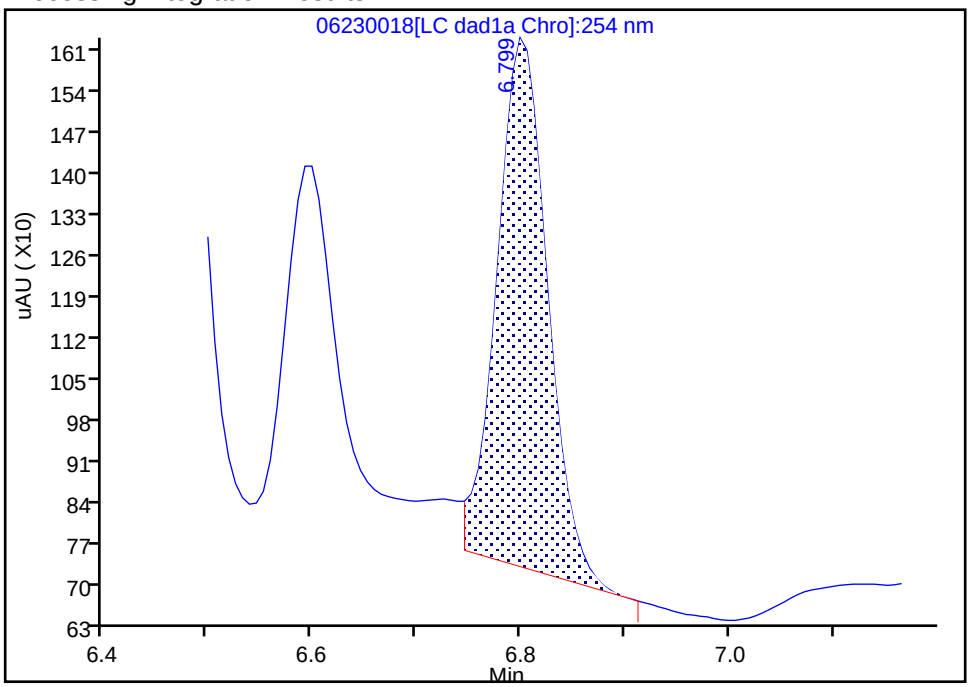
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

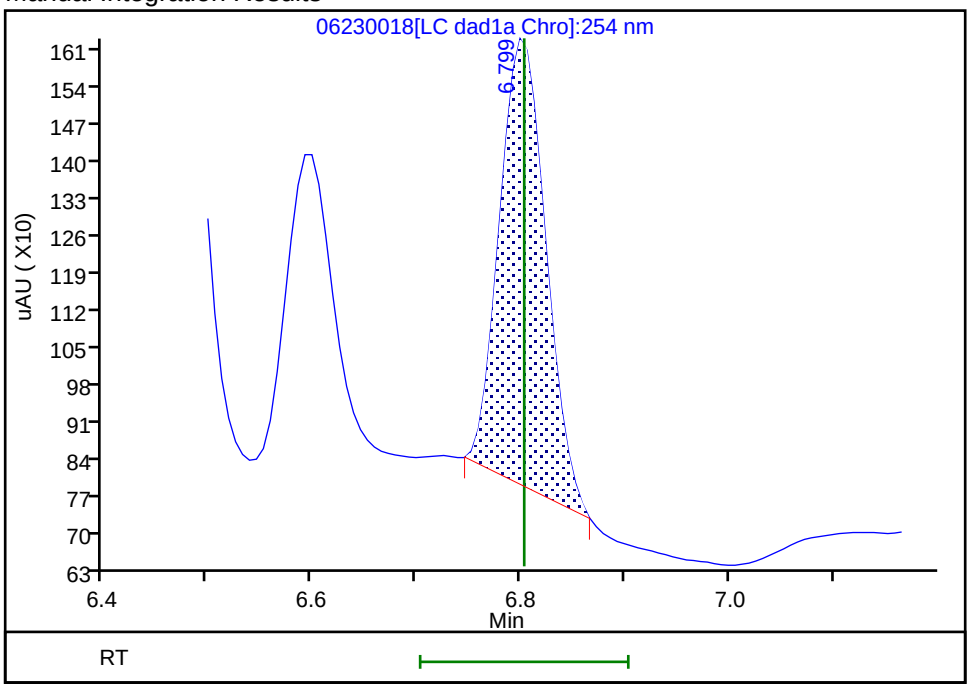
Processing Integration Results

RT: 6.80
Area: 3071
Amount: 0.020912
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 2620
Amount: 0.018132
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:11 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

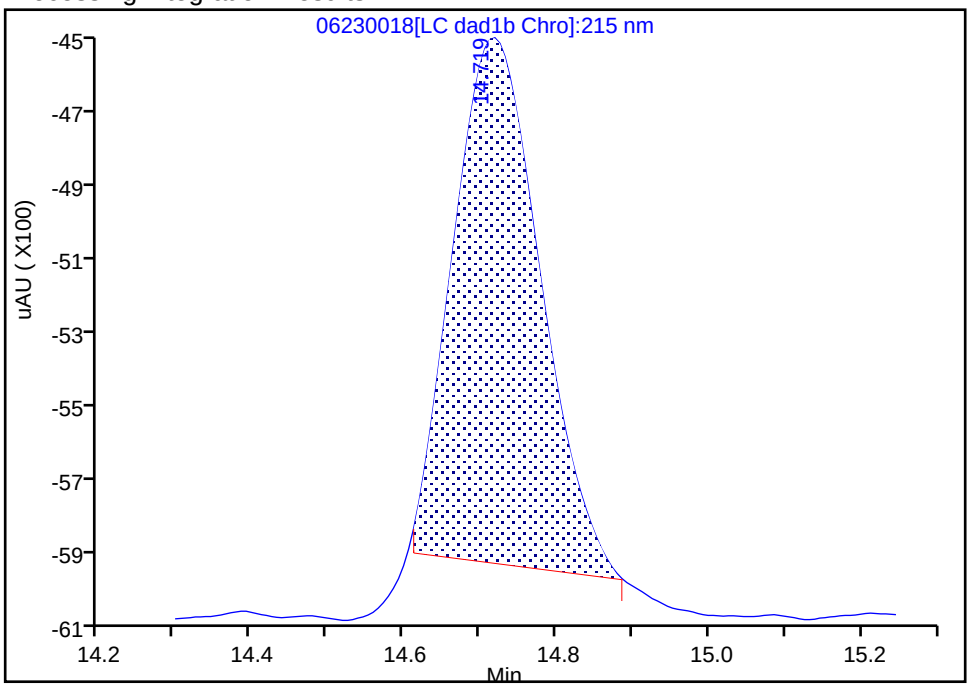
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

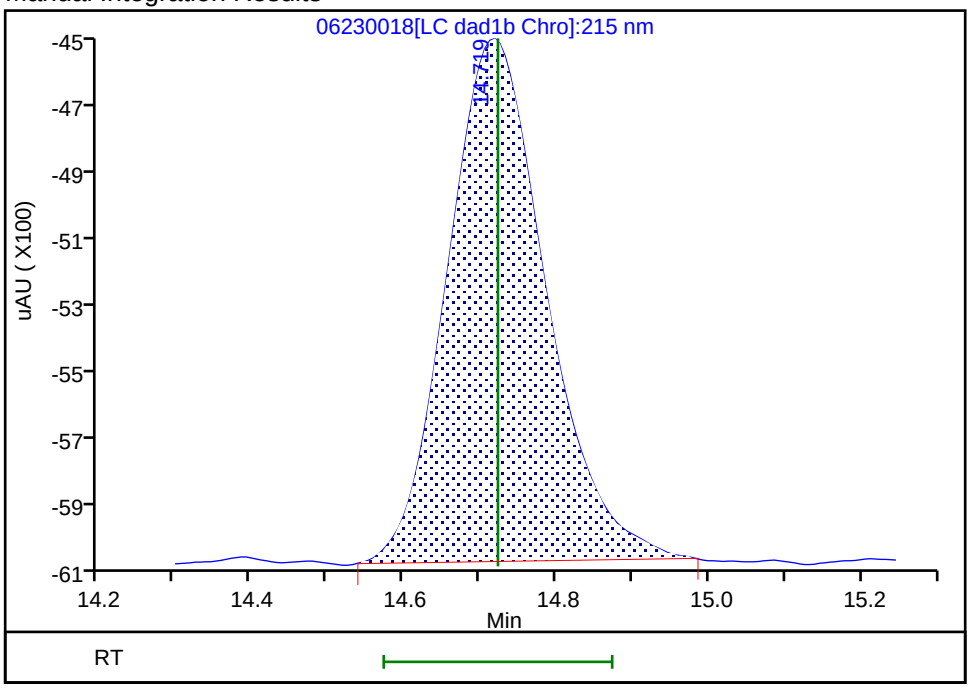
Processing Integration Results

RT: 14.72
Area: 10960
Amount: 0.155528
Amount Units: ug/mL



Manual Integration Results

RT: 14.72
Area: 13637
Amount: 0.189356
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230019.D
Lims ID: IC INT/DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Jun-2023 20:57:20 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:51 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:21:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.470	0.004	2190	0.0100	0.0109	M
4 HMX	1	6.601	6.597	0.004	1048	0.0100	0.0111	M
6 DNX	1	6.801	6.803	-0.002	1412	0.0100	0.009772	M
7 MNX	1	7.241	7.237	0.004	1811	0.0117	0.0131	
8 RDX	1	7.627	7.623	0.004	1225	0.0100	0.0111	
9 2,4,6-Trinitrophenol	1	8.041	8.030	0.011	756	0.0100	0.009709	
$ 10 1,2-Dinitrobenzene	1	8.594	8.590	0.004	1172	0.0100	0.009458	
11 1,3,5-Trinitrobenzene	1	8.714	8.710	0.004	2019	0.0100	0.009344	
12 1,3-Dinitrobenzene	1	9.334	9.336	-0.002	2901	0.0100	0.009889	
13 Nitrobenzene	1	9.714	9.710	0.004	2020	0.0100	0.0105	
14 3,5-Dinitroaniline	1	9.941	9.943	-0.002	2151	0.0100	0.0101	
15 Tetryl	1	10.081	10.083	-0.002	1546	0.0100	0.009243	
16 Nitroglycerin	2	10.534	10.536	-0.002	6047	0.1000	0.0935	
17 2,4,6-Trinitrotoluene	1	10.974	10.976	-0.002	1918	0.0100	0.009361	
18 4-Amino-2,6-dinitrotoluene	1	11.174	11.170	0.004	1464	0.0100	0.009789	
19 2-Amino-4,6-dinitrotoluene	1	11.421	11.423	-0.002	1950	0.0100	0.0101	
20 2,6-Dinitrotoluene	1	11.574	11.576	-0.002	1373	0.0100	0.009626	
21 2,4-Dinitrotoluene	1	11.741	11.743	-0.002	2941	0.0100	0.0099	
22 o-Nitrotoluene	1	12.567	12.570	-0.003	1291	0.0100	0.0102	
23 p-Nitrotoluene	1	12.994	12.983	0.011	1165	0.0100	0.0106	
24 m-Nitrotoluene	1	13.554	13.556	-0.002	1870	0.0100	0.009849	
25 PETN	2	14.721	14.723	-0.002	7328	0.1000	0.1018	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	1.00	Units: uL
8330 DMT_00013	Amount Added:	0.50	Units: uL

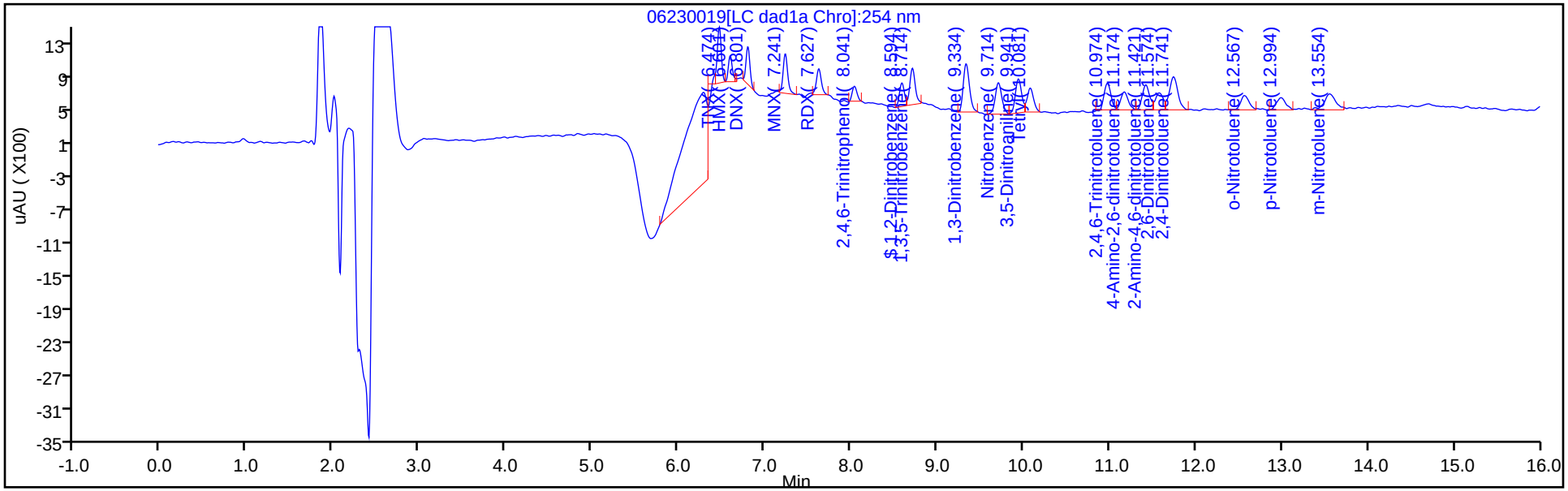
Report Date: 24-Jun-2023 12:55:52 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

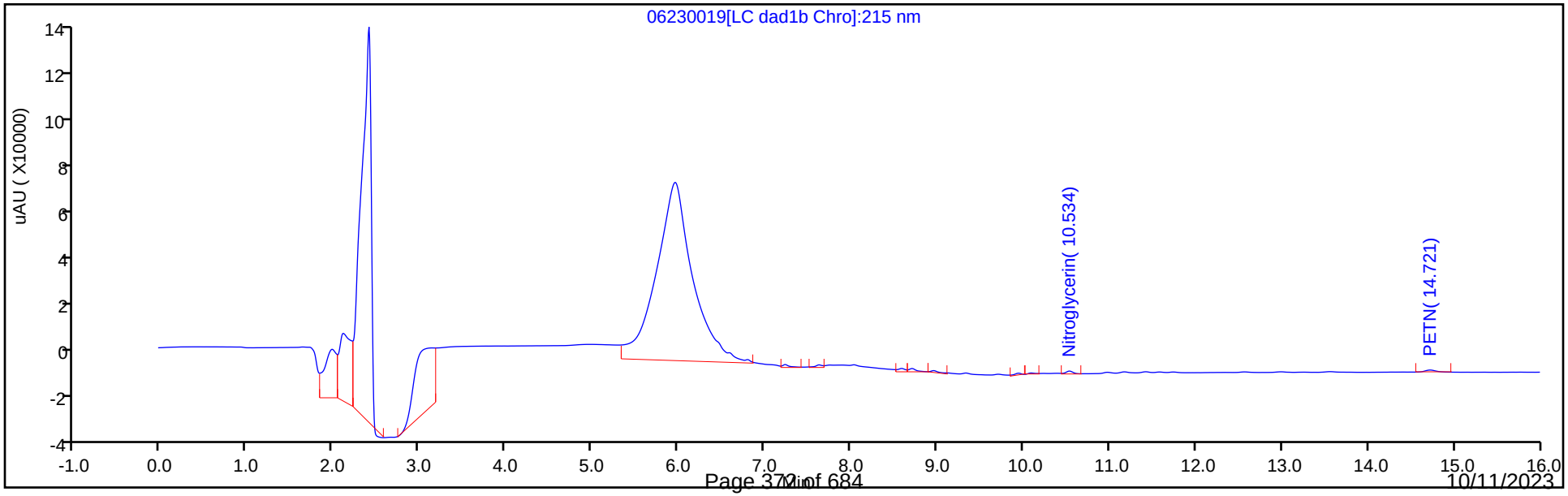
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d

Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

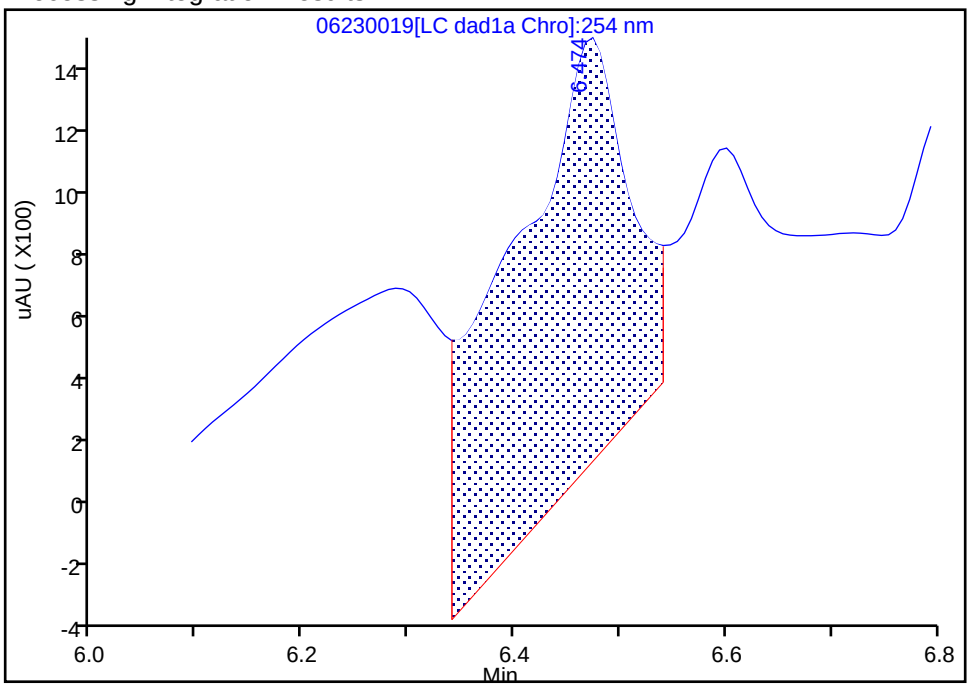
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d				
Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

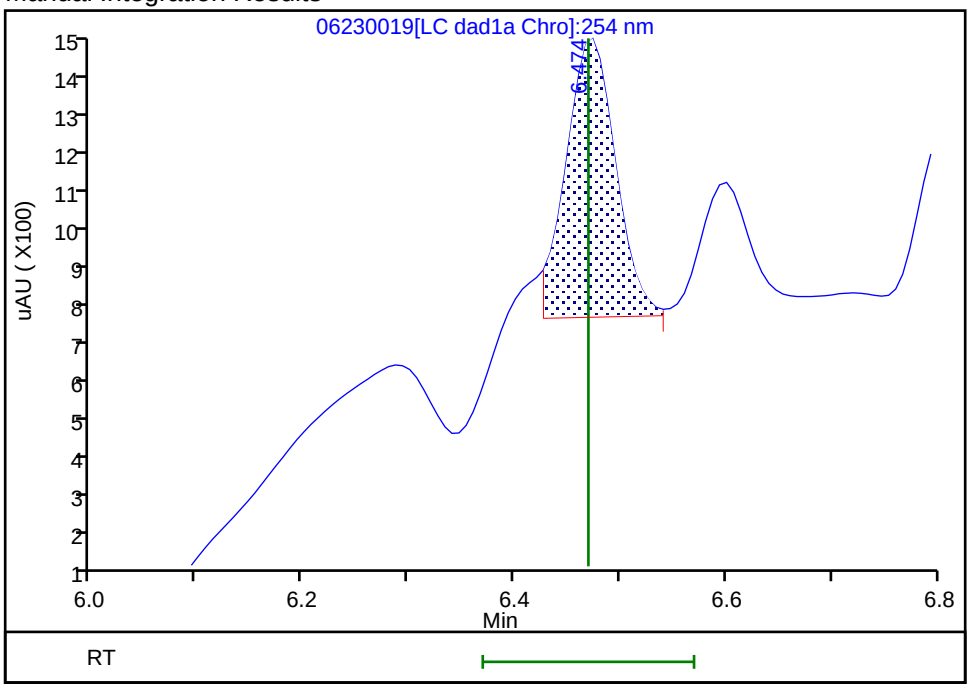
Processing Integration Results

RT: 6.47
Area: 11267
Amount: 0.037393
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 2190
Amount: 0.010908
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:33 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

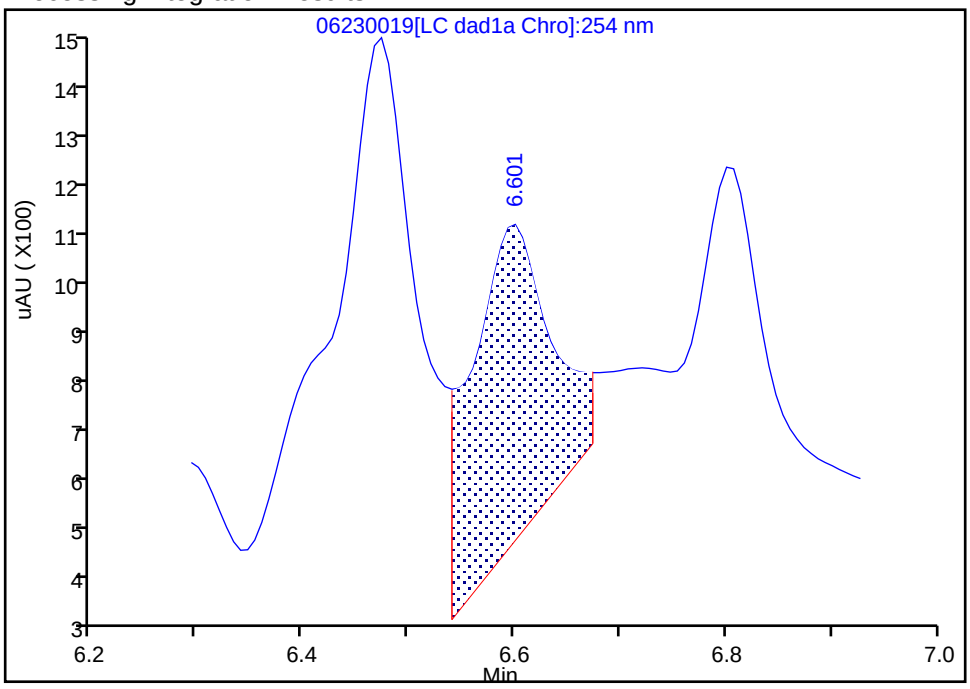
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d				
Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

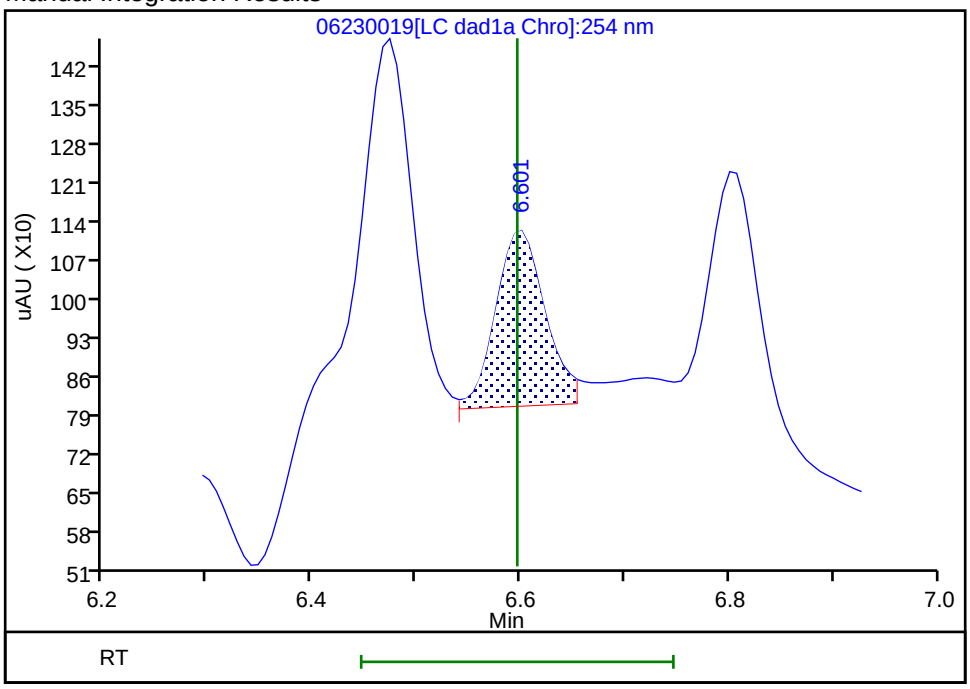
Processing Integration Results

RT: 6.60
Area: 3145
Amount: 0.026753
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 1048
Amount: 0.011119
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:35 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

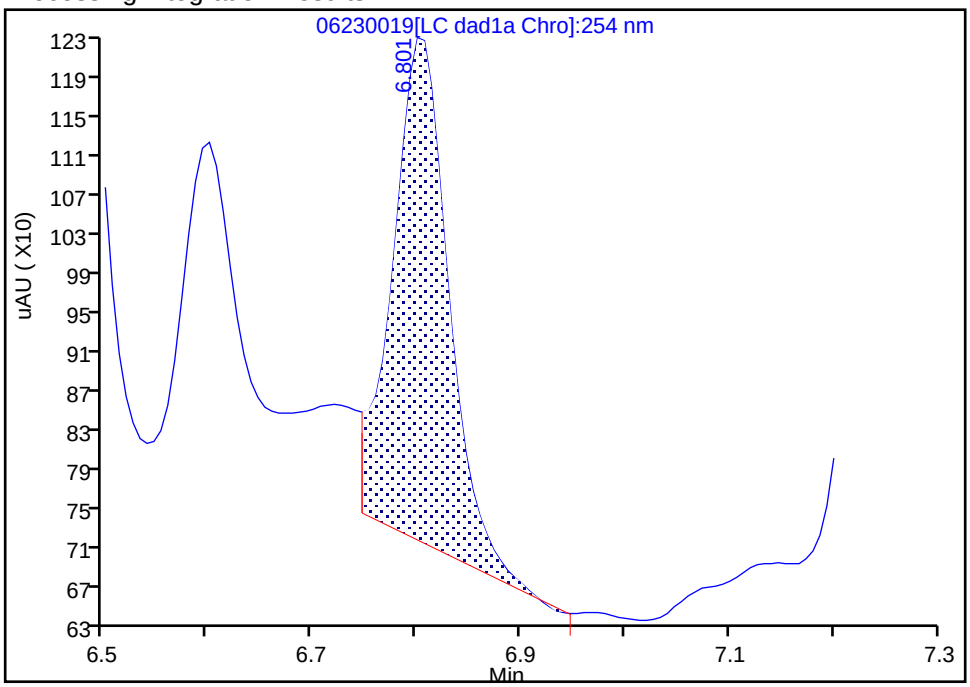
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d
Injection Date: 23-Jun-2023 20:57:20 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

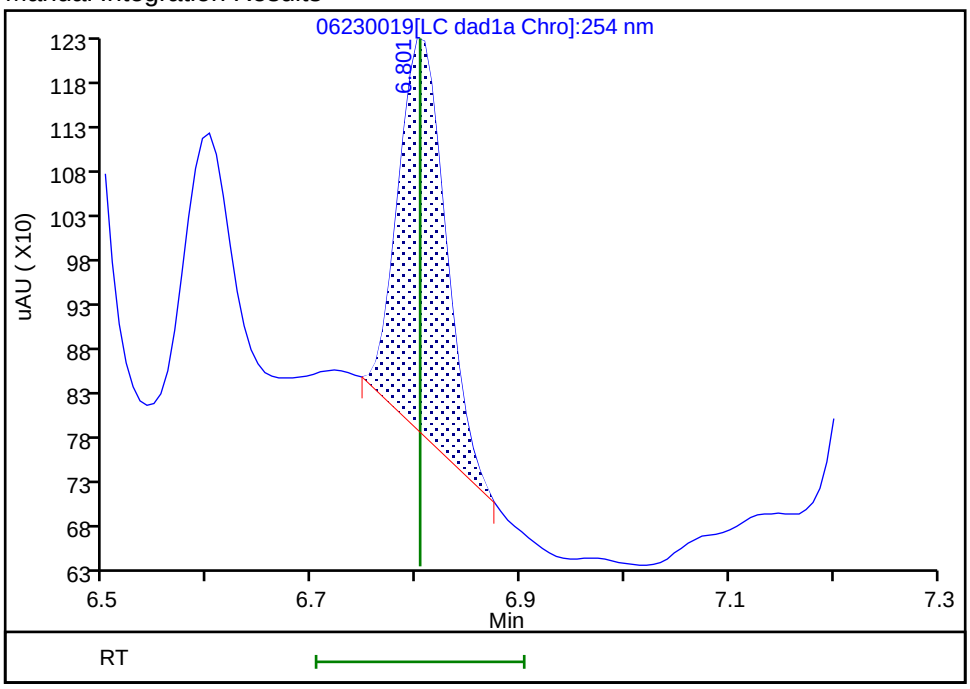
Processing Integration Results

RT: 6.80
Area: 1950
Amount: 0.012960
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 1412
Amount: 0.009772
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:40 -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

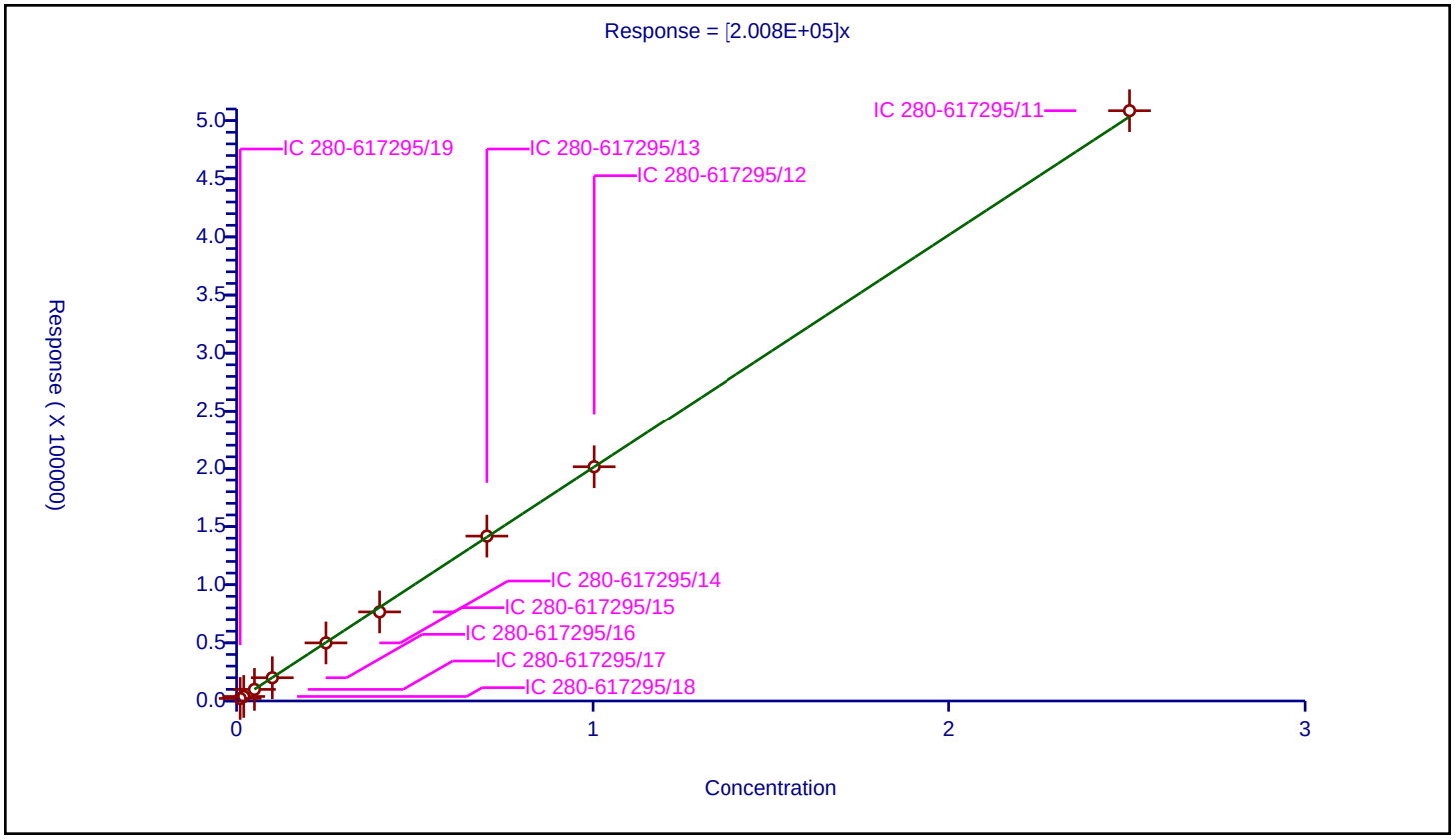
Curve Coefficients

Intercept:	0
Slope:	2.008E+05

Error Coefficients

Standard Error:	2320
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01003	2190.0			218344.965105	Y
2	IC 280-617295/18	0.02006	3897.0			194267.198405	Y
3	IC 280-617295/17	0.05015	9975.0			198903.29013	Y
4	IC 280-617295/16	0.1003	20003.0			199431.704885	Y
5	IC 280-617295/15	0.25075	49970.0			199282.153539	Y
6	IC 280-617295/14	0.4012	76609.0			190949.651047	Y
7	IC 280-617295/13	0.7021	141821.0			201995.442245	Y
8	IC 280-617295/12	1.003	201466.0			200863.409771	Y
9	IC 280-617295/11	2.5075	508547.0			202810.368893	Y



10/11/2023
10:32 AM

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

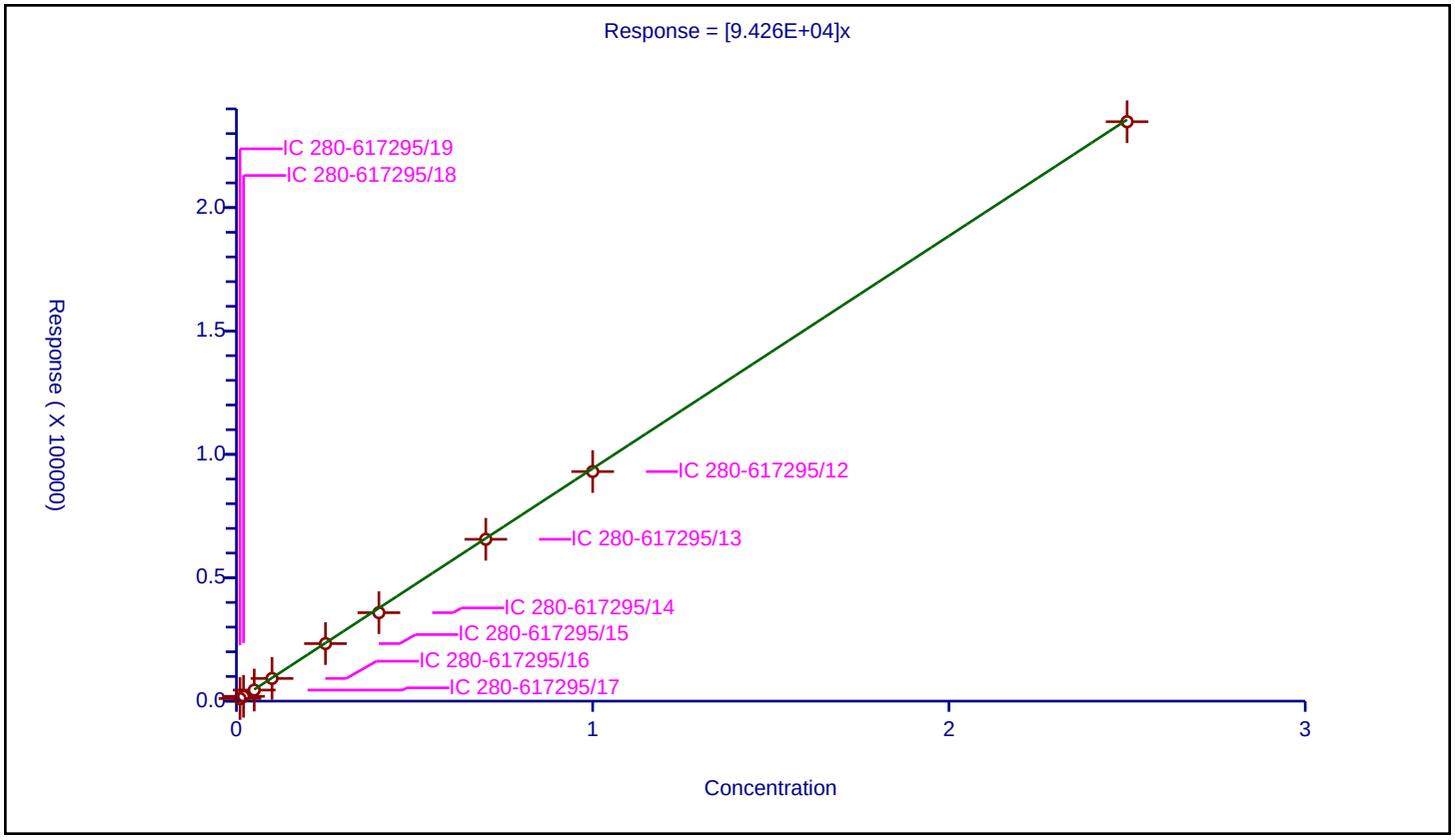
Curve Coefficients

Intercept:	0
Slope:	9.426E+04

Error Coefficients

Standard Error:	862
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1048.0			104800.0	Y
2	IC 280-617295/18	0.02	1960.0			98000.0	Y
3	IC 280-617295/17	0.05	4496.0			89920.0	Y
4	IC 280-617295/16	0.1	9201.0			92010.0	Y
5	IC 280-617295/15	0.25	23321.0			93284.0	Y
6	IC 280-617295/14	0.4	35849.0			89622.5	Y
7	IC 280-617295/13	0.7	65593.0			93704.285714	Y
8	IC 280-617295/12	1.0	93035.0			93035.0	Y
9	IC 280-617295/11	2.5	234806.0			93922.4	Y



10/11/2023
10:32 AM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

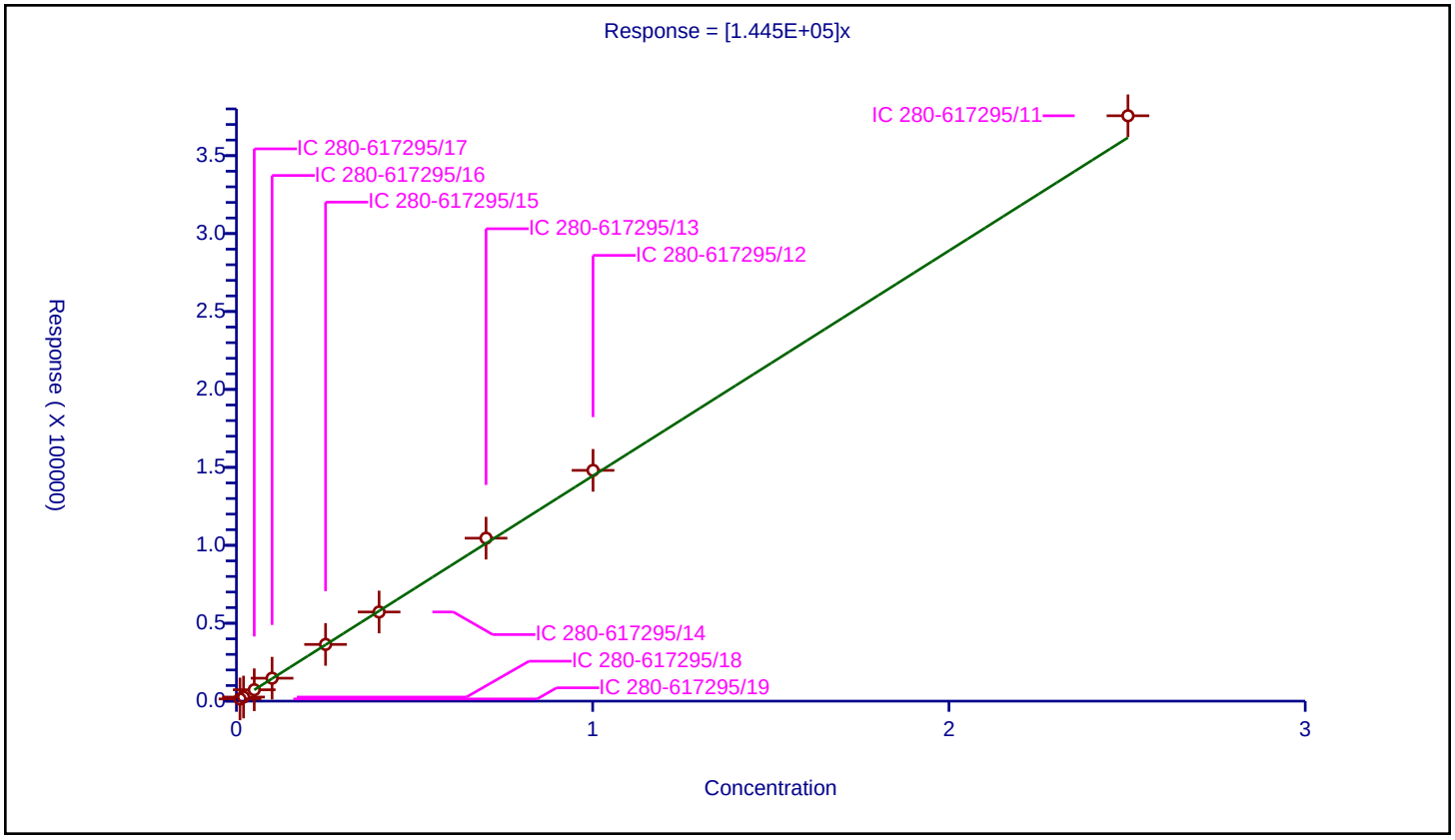
Curve Coefficients

Intercept:	0
Slope:	1.445E+05

Error Coefficients

Standard Error:	5240
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01001	1412.0			141058.941059	Y
2	IC 280-617295/18	0.02002	2620.0			130869.130869	Y
3	IC 280-617295/17	0.05005	7299.0			145834.165834	Y
4	IC 280-617295/16	0.1001	14726.0			147112.887113	Y
5	IC 280-617295/15	0.25025	36397.0			145442.557443	Y
6	IC 280-617295/14	0.4004	57208.0			142877.122877	Y
7	IC 280-617295/13	0.7007	104556.0			149216.497788	Y
8	IC 280-617295/12	1.001	148083.0			147935.064935	Y
9	IC 280-617295/11	2.5025	375597.0			150088.711289	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

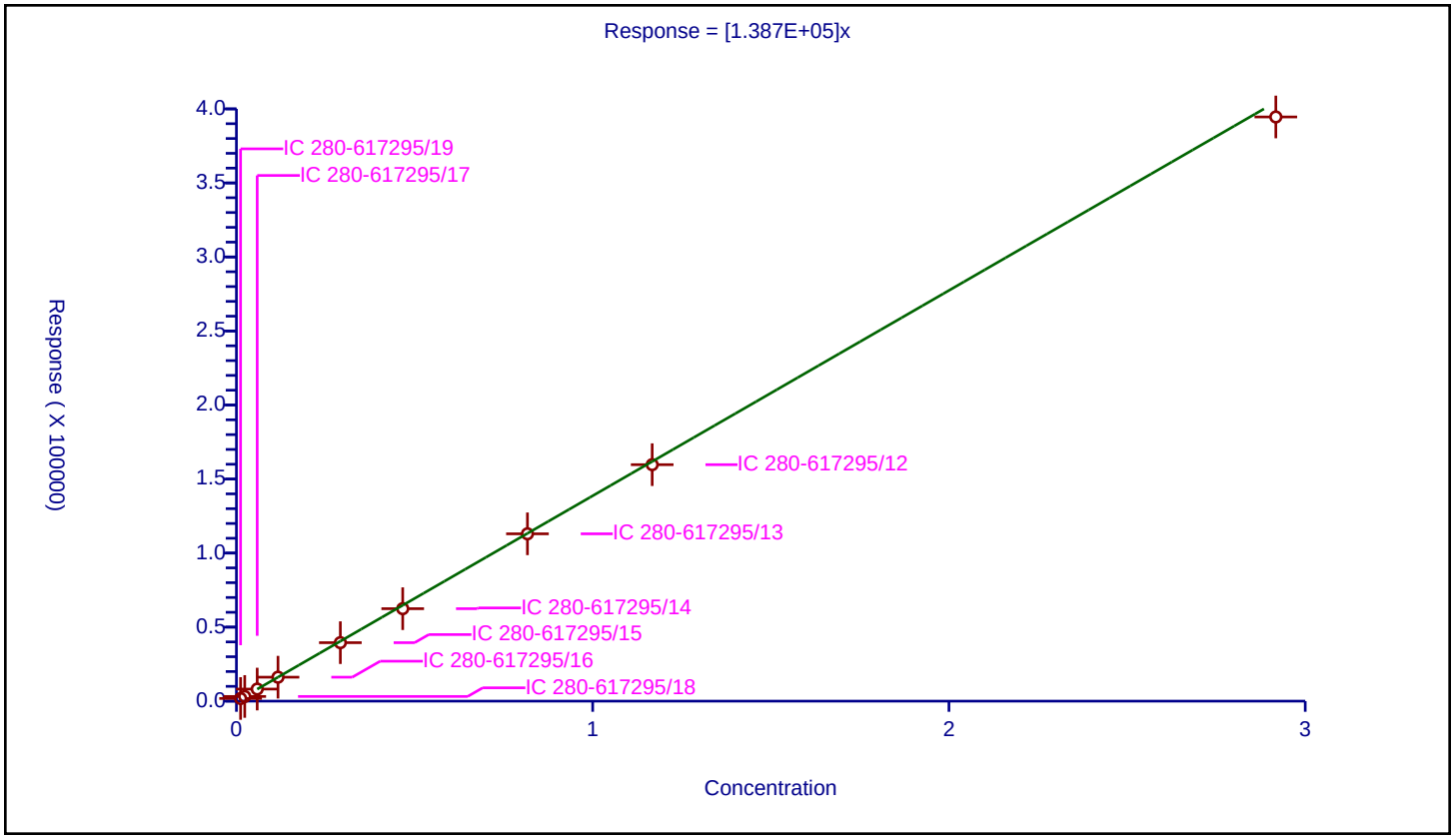
Curve Coefficients

Intercept:	0
Slope:	1.387E+05

Error Coefficients

Standard Error:	3750
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01167	1811.0			155184.233076	Y
2	IC 280-617295/18	0.02334	3155.0			135175.664096	Y
3	IC 280-617295/17	0.05835	8151.0			139691.51671	Y
4	IC 280-617295/16	0.1167	16173.0			138586.118252	Y
5	IC 280-617295/15	0.29175	39495.0			135372.750643	Y
6	IC 280-617295/14	0.4668	62440.0			133761.782348	Y
7	IC 280-617295/13	0.8169	113007.0			138336.393683	Y
8	IC 280-617295/12	1.167	159710.0			136855.184233	Y
9	IC 280-617295/11	2.9175	394545.0			135233.933162	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

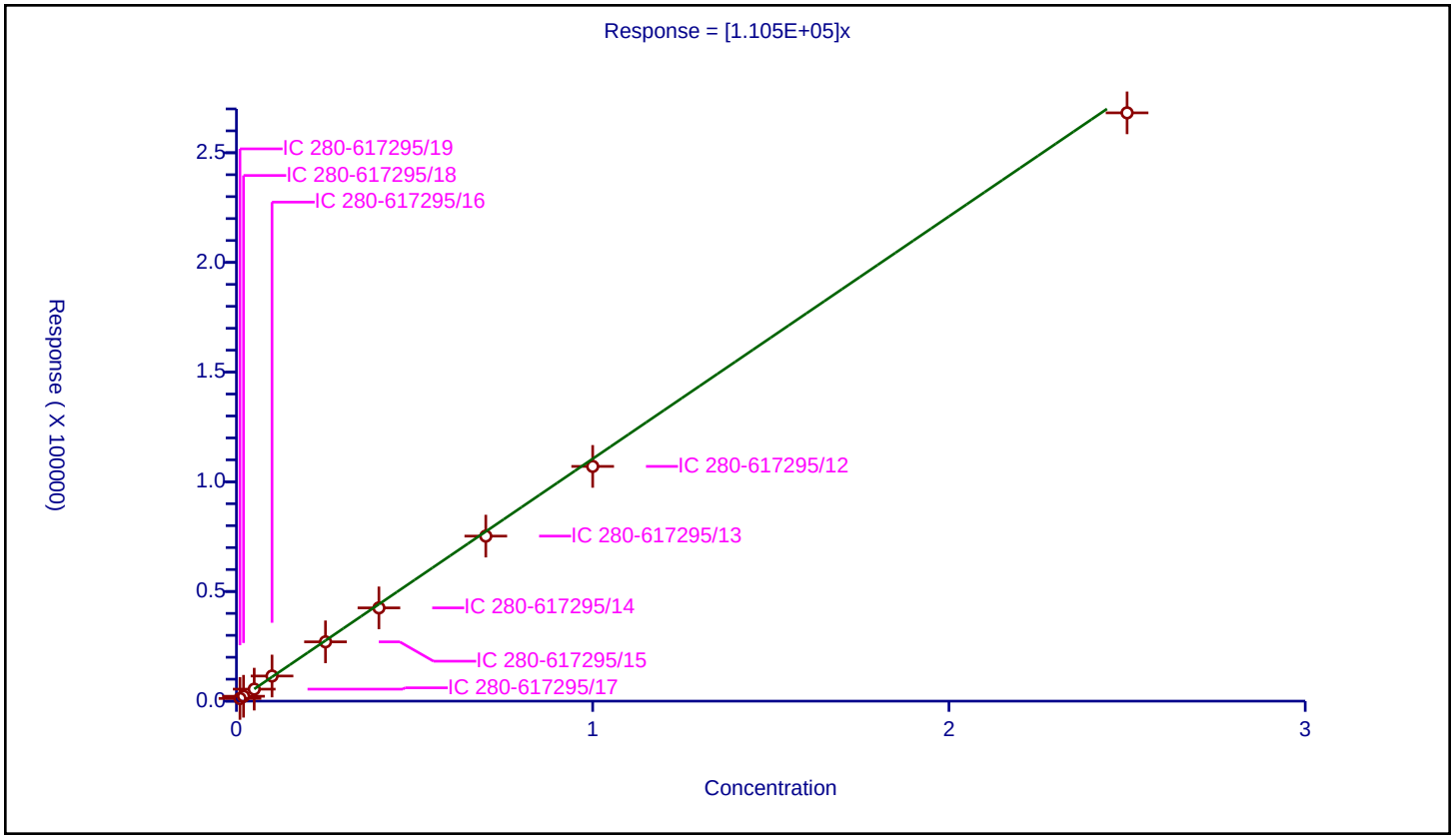
Curve Coefficients

Intercept:	0
Slope:	1.105E+05

Error Coefficients

Standard Error:	3250
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1225.0			122500.0	Y
2	IC 280-617295/18	0.02	2234.0			111700.0	Y
3	IC 280-617295/17	0.05	5472.0			109440.0	Y
4	IC 280-617295/16	0.1	11457.0			114570.0	Y
5	IC 280-617295/15	0.25	27039.0			108156.0	Y
6	IC 280-617295/14	0.4	42514.0			106285.0	Y
7	IC 280-617295/13	0.7	75238.0			107482.857143	Y
8	IC 280-617295/12	1.0	107019.0			107019.0	Y
9	IC 280-617295/11	2.5	268207.0			107282.8	Y



10/11/2023
10:32 AM

Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

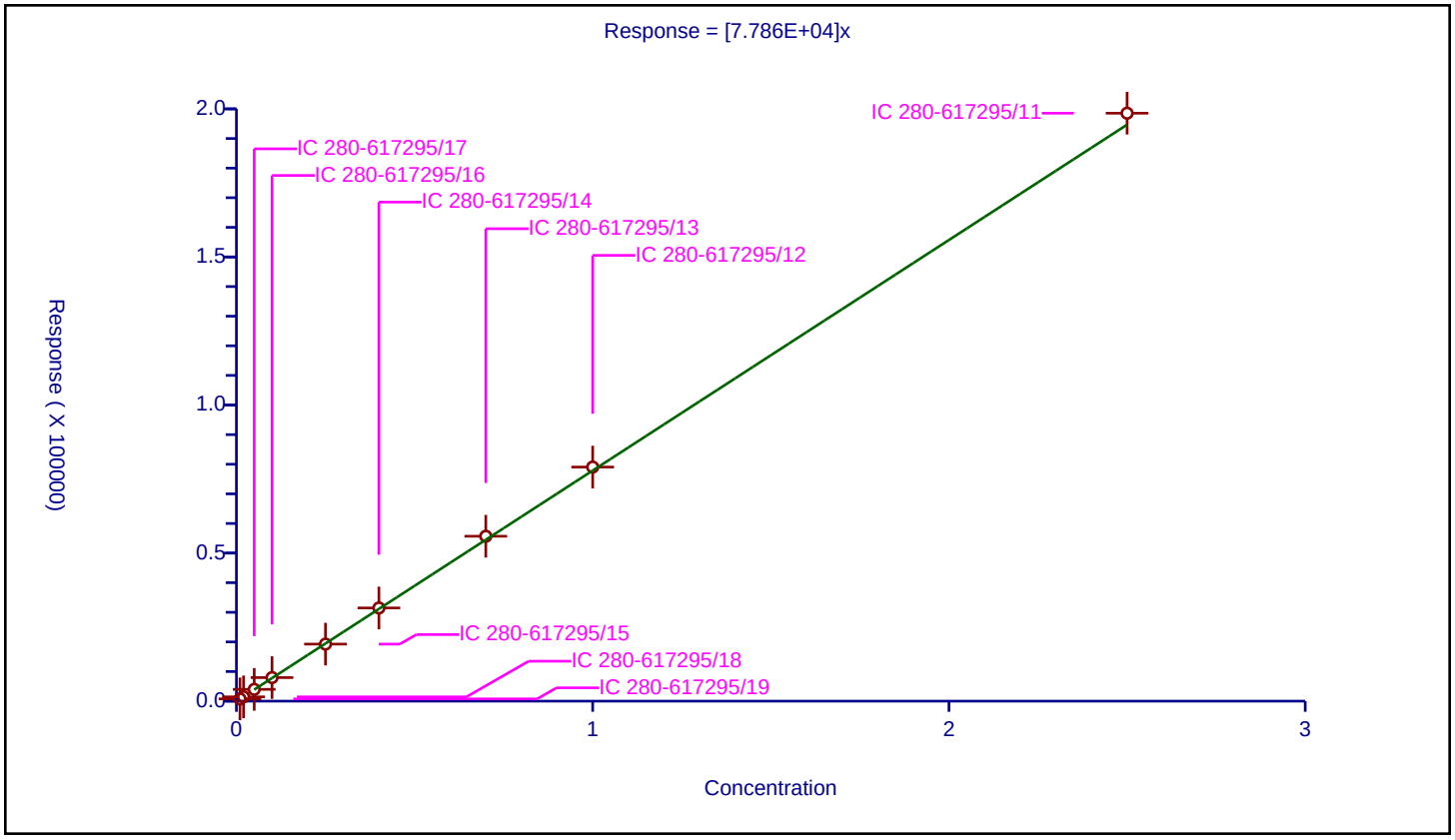
Curve Coefficients

Intercept:	0
Slope:	7.786E+04

Error Coefficients

Standard Error:	1500
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	756.0			75600.0	Y
2	IC 280-617295/18	0.02	1447.0			72350.0	Y
3	IC 280-617295/17	0.05	3979.0			79580.0	Y
4	IC 280-617295/16	0.1	7951.0			79510.0	Y
5	IC 280-617295/15	0.25	19262.0			77048.0	Y
6	IC 280-617295/14	0.4	31468.0			78670.0	Y
7	IC 280-617295/13	0.7	55684.0			79548.571429	Y
8	IC 280-617295/12	1.0	79045.0			79045.0	Y
9	IC 280-617295/11	2.5	198541.0			79416.4	Y



10/11/2023
10:32 AM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

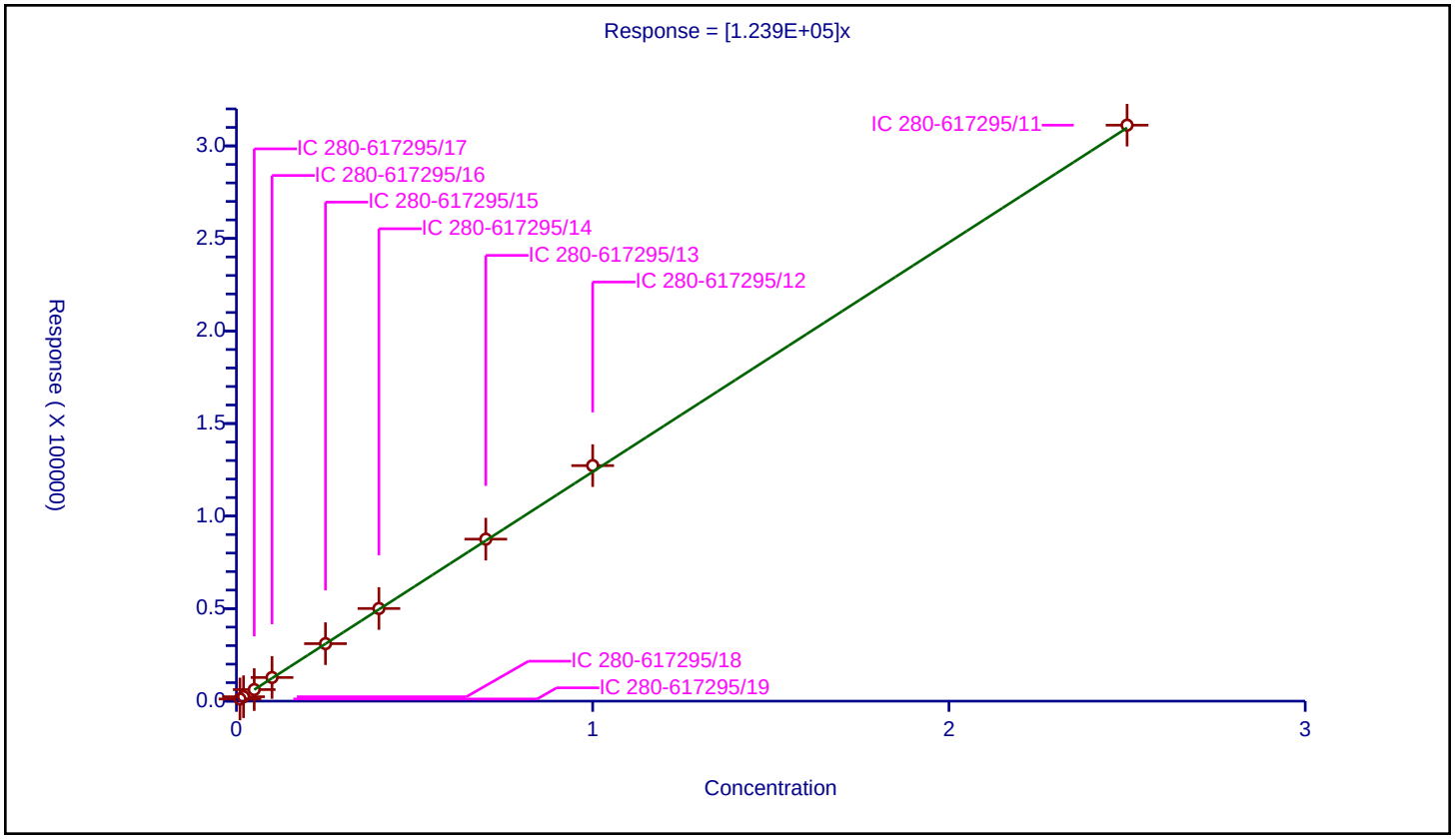
Curve Coefficients

Intercept:	0
Slope:	1.239E+05

Error Coefficients

Standard Error:	1340
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1172.0			117200.0	Y
2	IC 280-617295/18	0.02	2379.0			118950.0	Y
3	IC 280-617295/17	0.05	6250.0			125000.0	Y
4	IC 280-617295/16	0.1	12783.0			127830.0	Y
5	IC 280-617295/15	0.25	31068.0			124272.0	Y
6	IC 280-617295/14	0.4	50062.0			125155.0	Y
7	IC 280-617295/13	0.7	87532.0			125045.714286	Y
8	IC 280-617295/12	1.0	127262.0			127262.0	Y
9	IC 280-617295/11	2.5	311208.0			124483.2	Y



10/11/2023
10:32 AM

Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

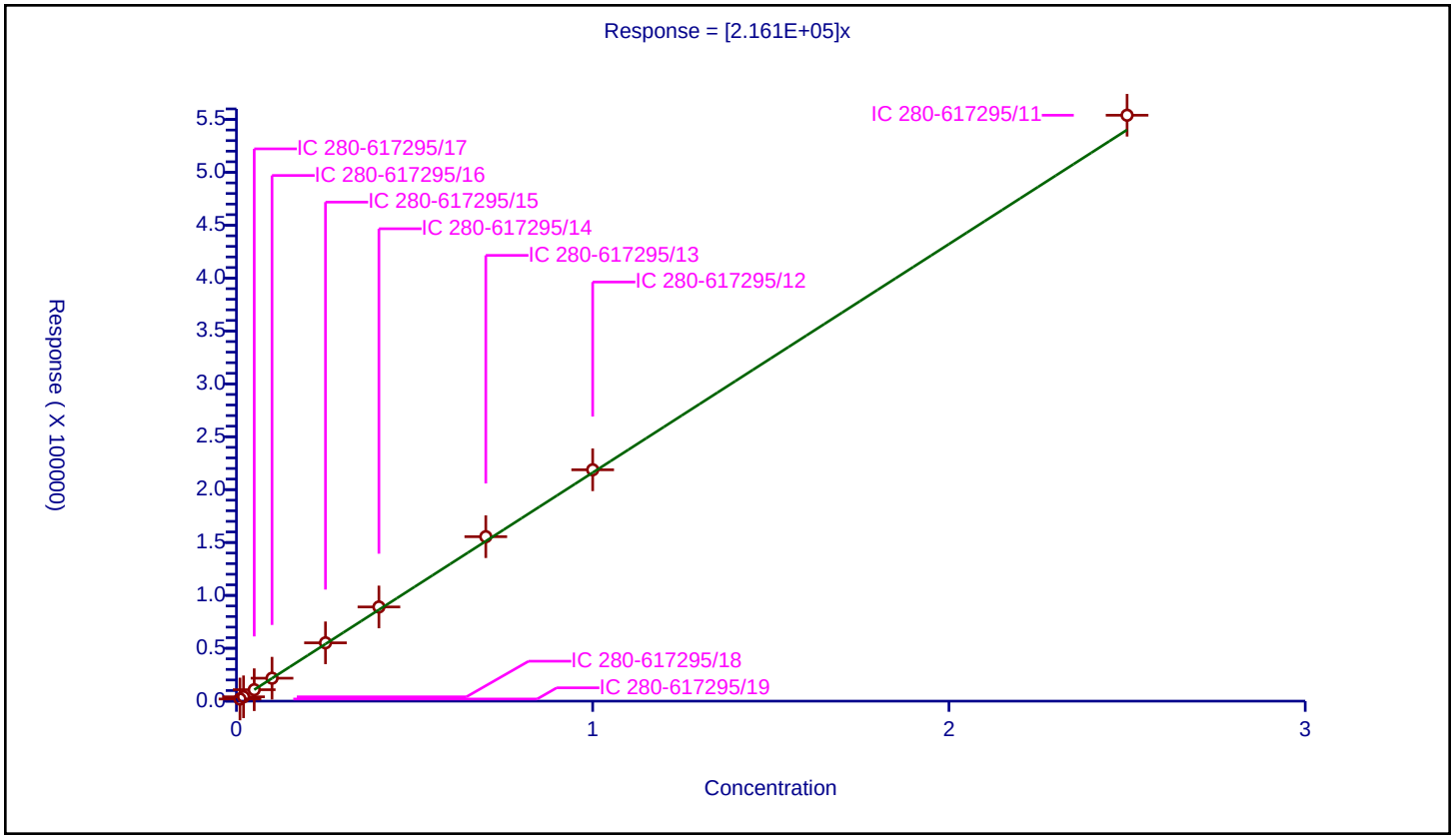
Curve Coefficients

Intercept:	0
Slope:	2.161E+05

Error Coefficients

Standard Error:	5300
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2019.0			201900.0	Y
2	IC 280-617295/18	0.02	4083.0			204150.0	Y
3	IC 280-617295/17	0.05	10805.0			216100.0	Y
4	IC 280-617295/16	0.1	21684.0			216840.0	Y
5	IC 280-617295/15	0.25	55138.0			220552.0	Y
6	IC 280-617295/14	0.4	89063.0			222657.5	Y
7	IC 280-617295/13	0.7	155494.0			222134.285714	Y
8	IC 280-617295/12	1.0	218769.0			218769.0	Y
9	IC 280-617295/11	2.5	554012.0			221604.8	Y



10/11/2023
10:32 AM

Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

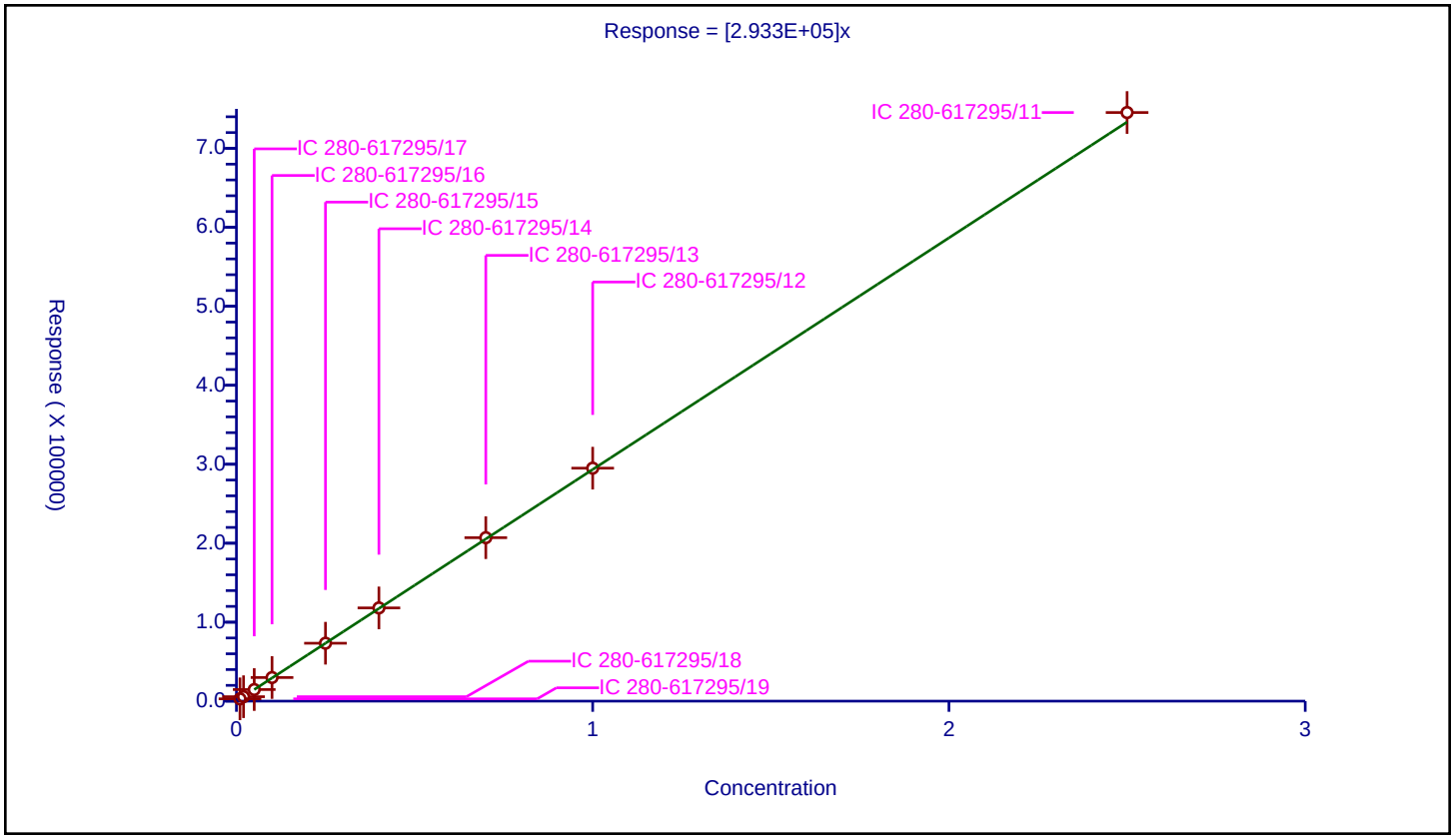
Curve Coefficients

Intercept:	0
Slope:	2.933E+05

Error Coefficients

Standard Error:	4350
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2901.0			290100.0	Y
2	IC 280-617295/18	0.02	5599.0			279950.0	Y
3	IC 280-617295/17	0.05	14684.0			293680.0	Y
4	IC 280-617295/16	0.1	29890.0			298900.0	Y
5	IC 280-617295/15	0.25	73356.0			293424.0	Y
6	IC 280-617295/14	0.4	118059.0			295147.5	Y
7	IC 280-617295/13	0.7	207005.0			295721.428571	Y
8	IC 280-617295/12	1.0	295042.0			295042.0	Y
9	IC 280-617295/11	2.5	745400.0			298160.0	Y



10/11/2023
10:32 AM

Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

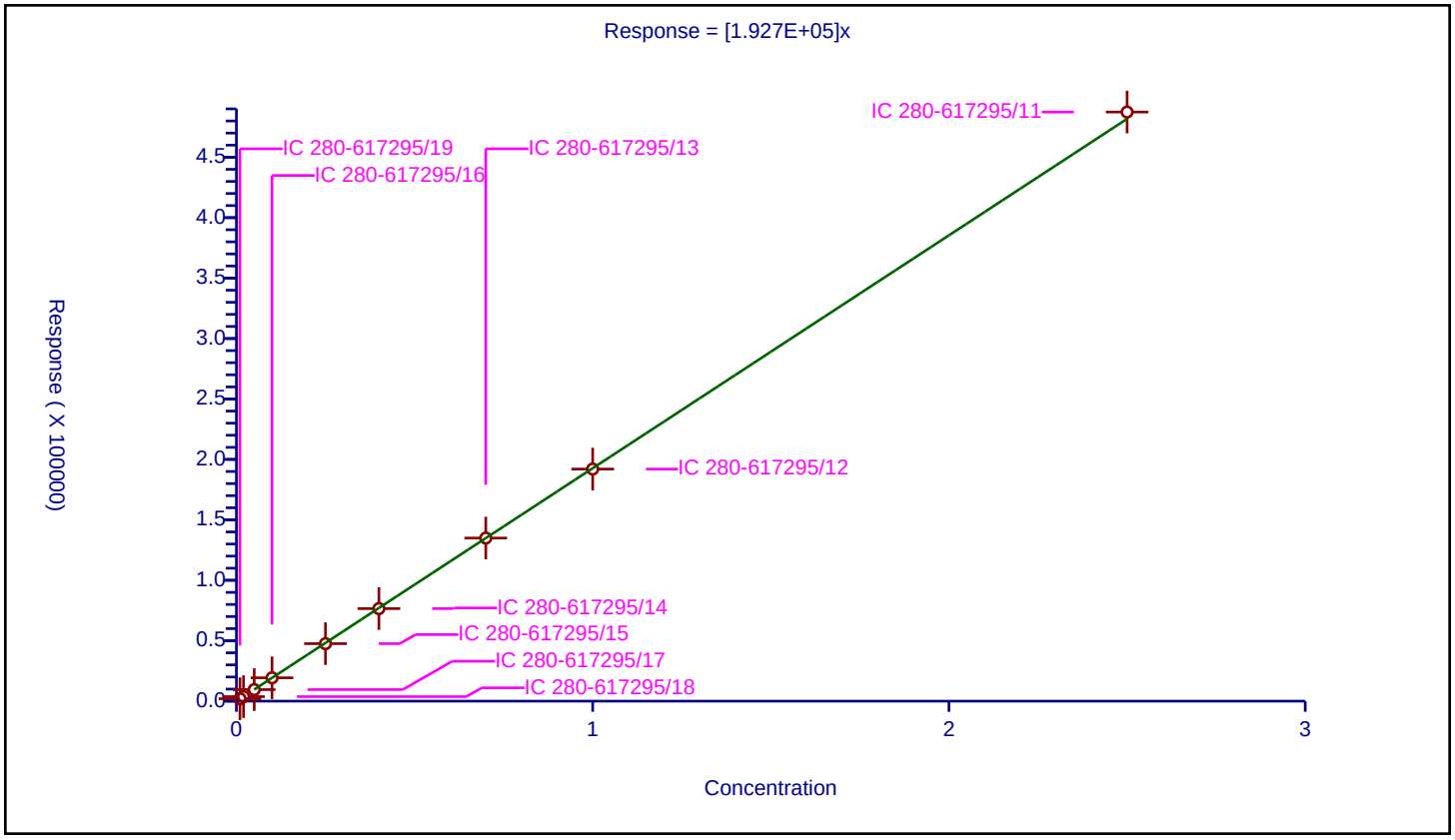
Curve Coefficients

Intercept:	0
Slope:	1.927E+05

Error Coefficients

Standard Error:	2030
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2020.0			202000.0	Y
2	IC 280-617295/18	0.02	3731.0			186550.0	Y
3	IC 280-617295/17	0.05	9561.0			191220.0	Y
4	IC 280-617295/16	0.1	19309.0			193090.0	Y
5	IC 280-617295/15	0.25	47571.0			190284.0	Y
6	IC 280-617295/14	0.4	76555.0			191387.5	Y
7	IC 280-617295/13	0.7	134942.0			192774.285714	Y
8	IC 280-617295/12	1.0	192007.0			192007.0	Y
9	IC 280-617295/11	2.5	487382.0			194952.8	Y



10/11/2023
10:32 AM

Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

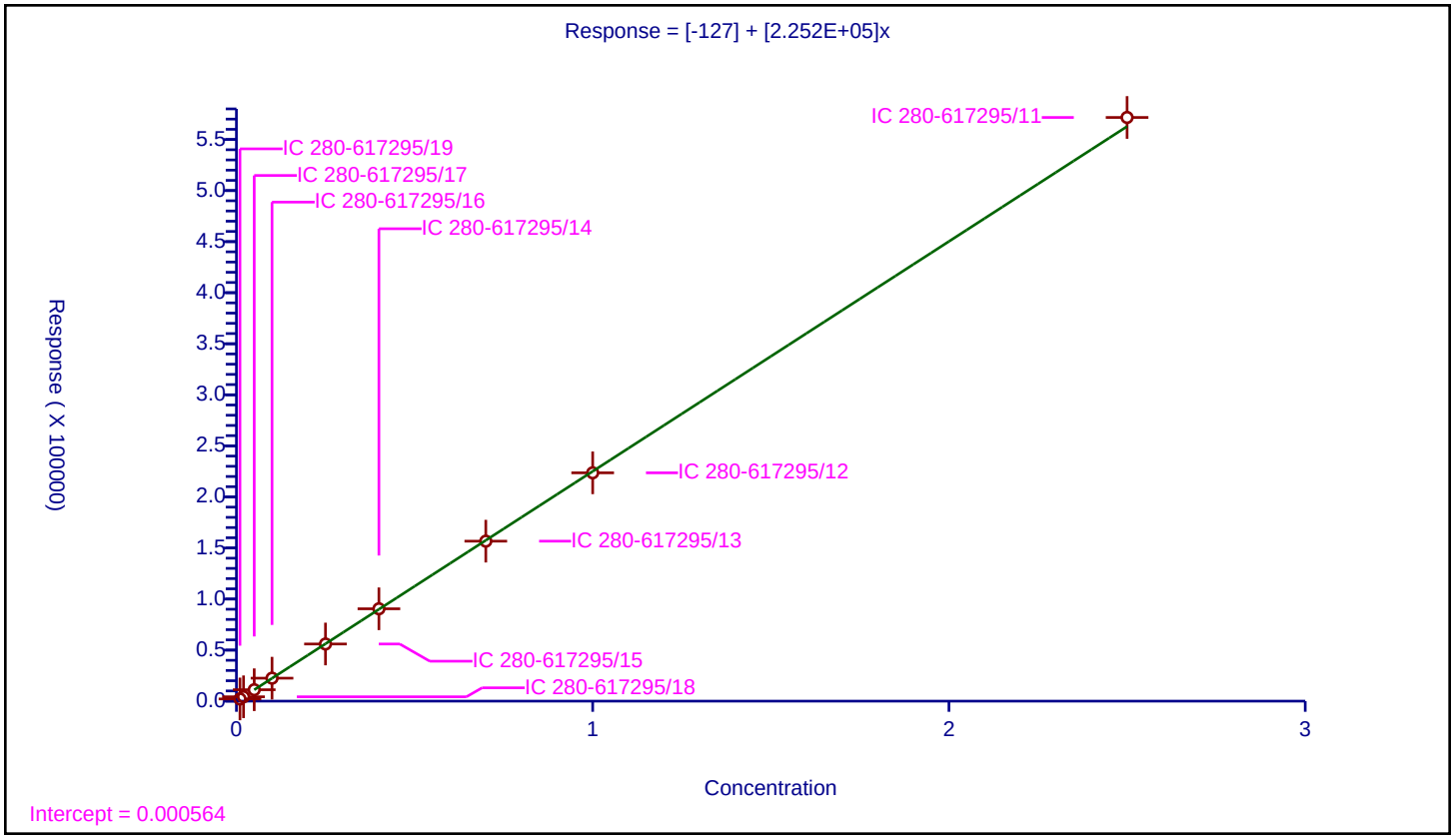
Curve Coefficients

Intercept:	-127
Slope:	2.252E+05

Error Coefficients

Standard Error:	3390
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2151.0			215100.0	Y
2	IC 280-617295/18	0.02	4262.0			213100.0	Y
3	IC 280-617295/17	0.05	11168.0			223360.0	Y
4	IC 280-617295/16	0.1	22486.0			224860.0	Y
5	IC 280-617295/15	0.25	55971.0			223884.0	Y
6	IC 280-617295/14	0.4	90451.0			226127.5	Y
7	IC 280-617295/13	0.7	156668.0			223811.428571	Y
8	IC 280-617295/12	1.0	223593.0			223593.0	Y
9	IC 280-617295/11	2.5	571603.0			228641.2	Y



10/11/2023
10:32 AM

Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

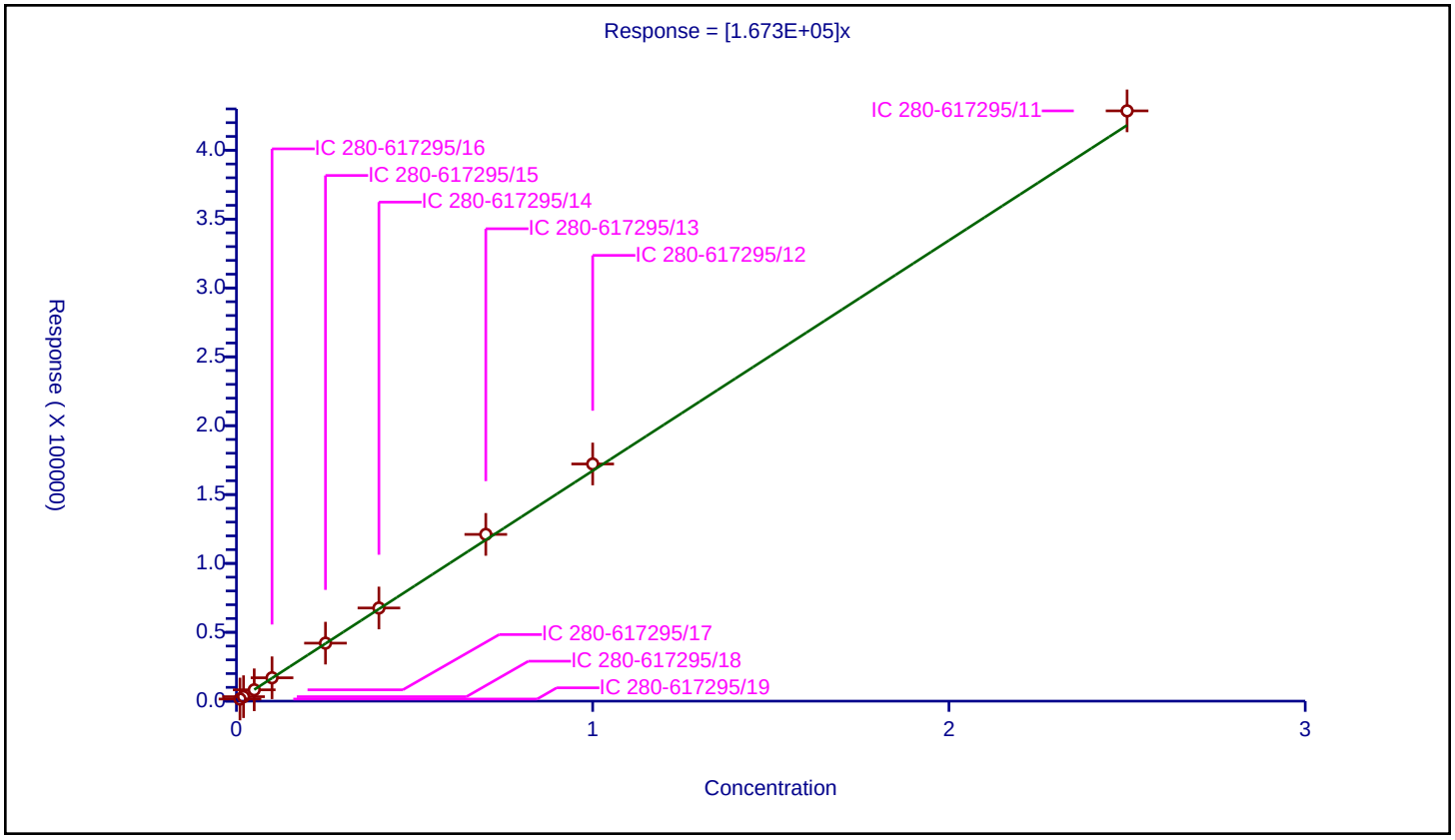
Curve Coefficients

Intercept:	0
Slope:	1.673E+05

Error Coefficients

Standard Error:	4320
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1546.0			154600.0	Y
2	IC 280-617295/18	0.02	3248.0			162400.0	Y
3	IC 280-617295/17	0.05	8232.0			164640.0	Y
4	IC 280-617295/16	0.1	16961.0			169610.0	Y
5	IC 280-617295/15	0.25	42107.0			168428.0	Y
6	IC 280-617295/14	0.4	67629.0			169072.5	Y
7	IC 280-617295/13	0.7	121063.0			172947.142857	Y
8	IC 280-617295/12	1.0	172187.0			172187.0	Y
9	IC 280-617295/11	2.5	428562.0			171424.8	Y



10/11/2023
10:32 AM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

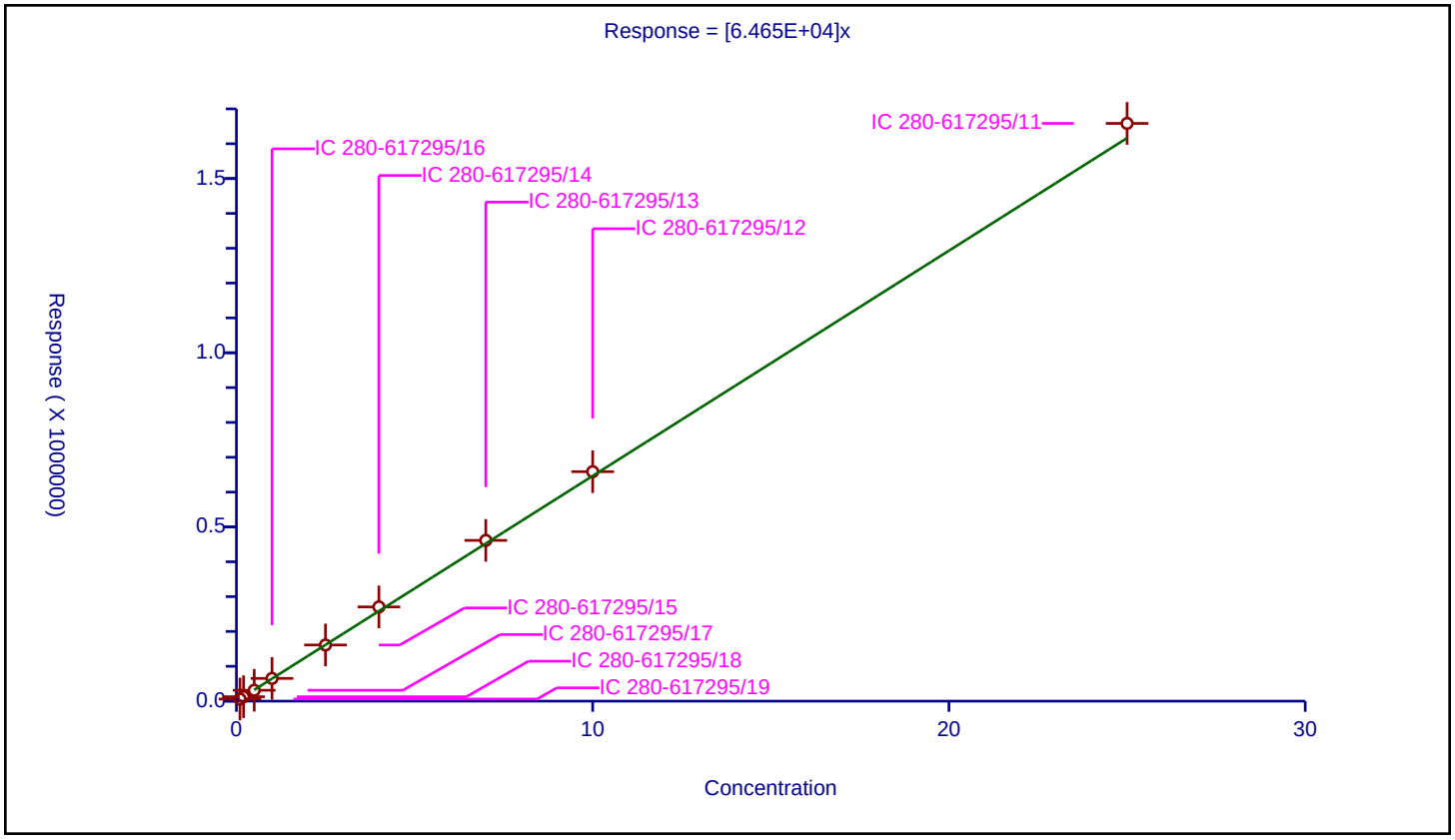
Curve Coefficients

Intercept:	0
Slope:	6.465E+04

Error Coefficients

Standard Error:	16300
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.1	6047.0			60470.0	Y
2	IC 280-617295/18	0.2	12682.0			63410.0	Y
3	IC 280-617295/17	0.5	31254.0			62508.0	Y
4	IC 280-617295/16	1.0	65270.0			65270.0	Y
5	IC 280-617295/15	2.5	161167.0			64466.8	Y
6	IC 280-617295/14	4.0	270481.0			67620.25	Y
7	IC 280-617295/13	7.0	461386.0			65912.285714	Y
8	IC 280-617295/12	10.0	658658.0			65865.8	Y
9	IC 280-617295/11	25.0	1658317.0			66332.68	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

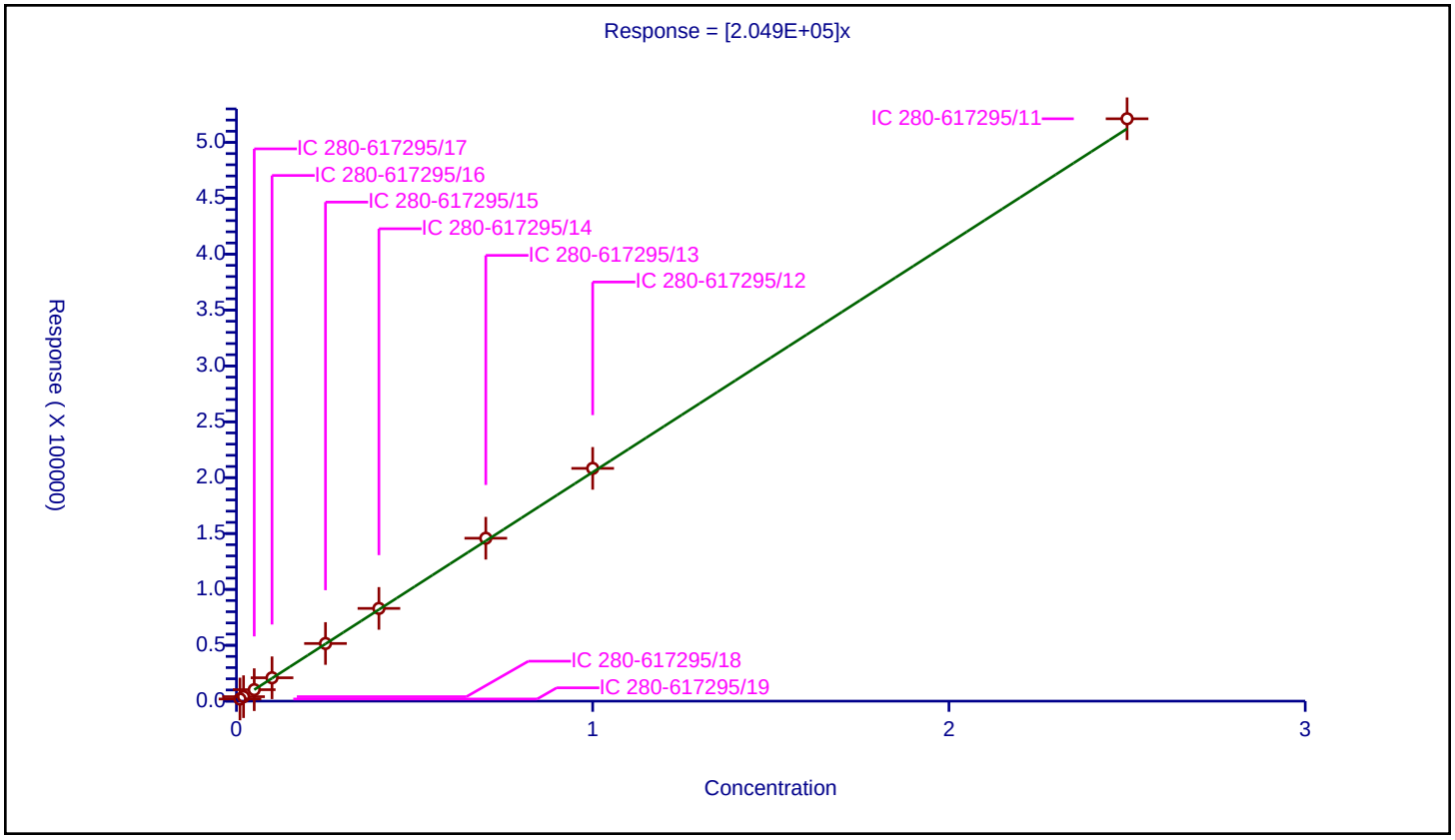
Curve Coefficients

Intercept:	0
Slope:	2.049E+05

Error Coefficients

Standard Error:	3500
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1918.0			191800.0	Y
2	IC 280-617295/18	0.02	3981.0			199050.0	Y
3	IC 280-617295/17	0.05	10269.0			205380.0	Y
4	IC 280-617295/16	0.1	20907.0			209070.0	Y
5	IC 280-617295/15	0.25	51584.0			206336.0	Y
6	IC 280-617295/14	0.4	82972.0			207430.0	Y
7	IC 280-617295/13	0.7	145792.0			208274.285714	Y
8	IC 280-617295/12	1.0	208313.0			208313.0	Y
9	IC 280-617295/11	2.5	521163.0			208465.2	Y



10/11/2023
10:32 AM

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

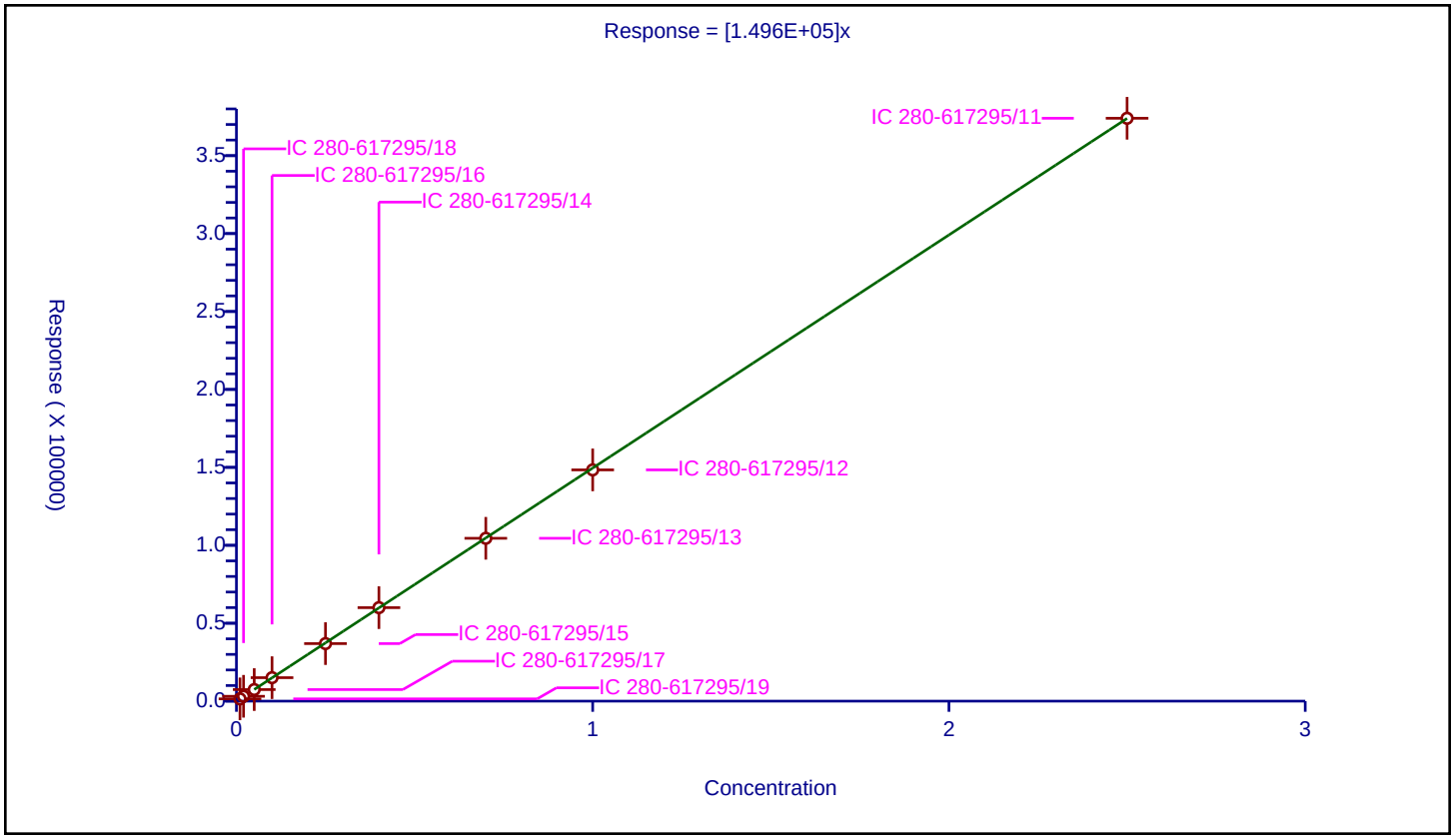
Curve Coefficients

Intercept:	0
Slope:	1.496E+05

Error Coefficients

Standard Error:	467
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1464.0			146400.0	Y
2	IC 280-617295/18	0.02	3111.0			155550.0	Y
3	IC 280-617295/17	0.05	7431.0			148620.0	Y
4	IC 280-617295/16	0.1	15058.0			150580.0	Y
5	IC 280-617295/15	0.25	36921.0			147684.0	Y
6	IC 280-617295/14	0.4	59989.0			149972.5	Y
7	IC 280-617295/13	0.7	104488.0			149268.571429	Y
8	IC 280-617295/12	1.0	148367.0			148367.0	Y
9	IC 280-617295/11	2.5	373989.0			149595.6	Y



10/11/2023
10:32 AM

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

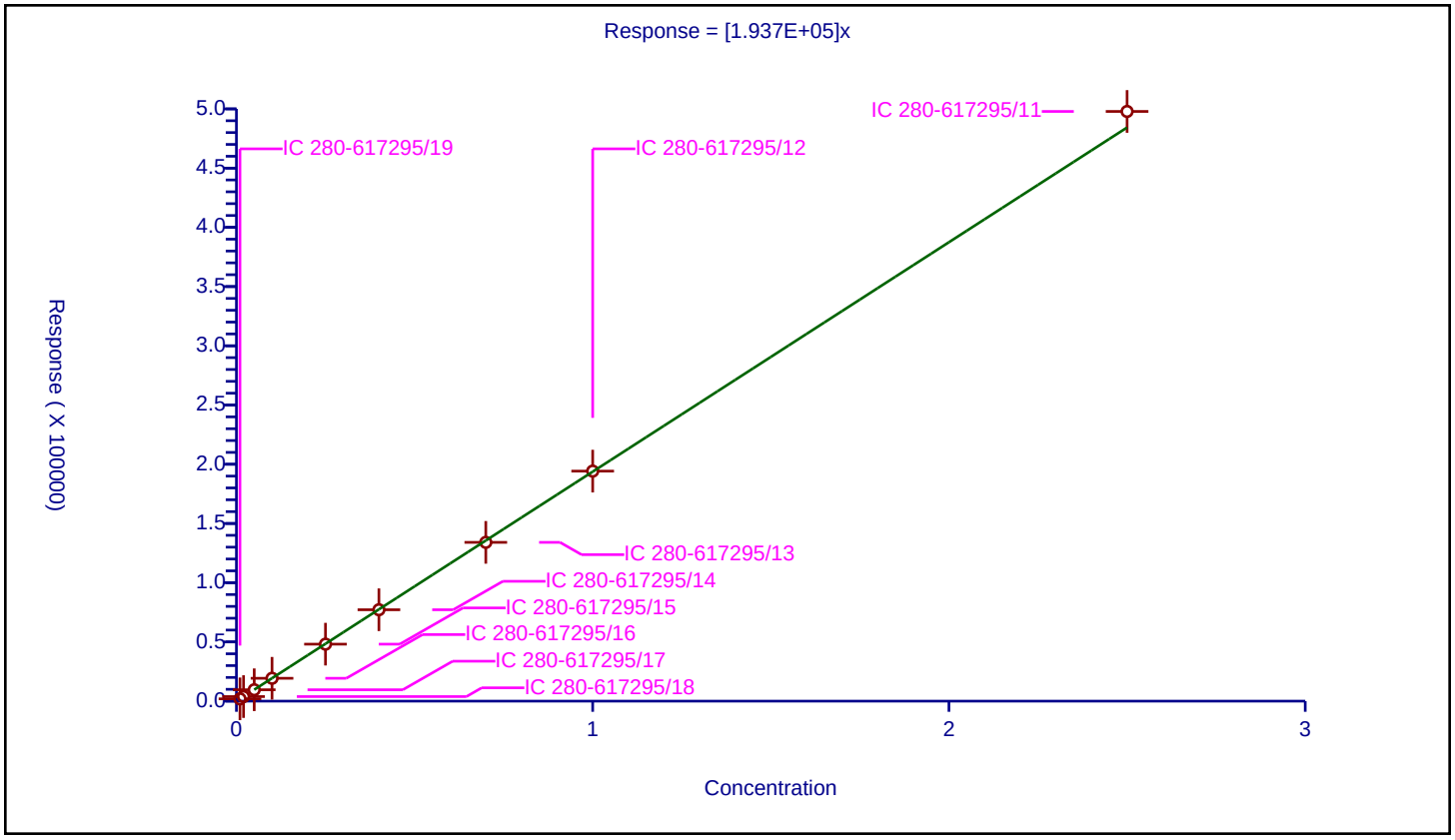
Curve Coefficients

Intercept:	0
Slope:	1.937E+05

Error Coefficients

Standard Error:	4830
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1950.0			195000.0	Y
2	IC 280-617295/18	0.02	3863.0			193150.0	Y
3	IC 280-617295/17	0.05	9604.0			192080.0	Y
4	IC 280-617295/16	0.1	19302.0			193020.0	Y
5	IC 280-617295/15	0.25	48118.0			192472.0	Y
6	IC 280-617295/14	0.4	77156.0			192890.0	Y
7	IC 280-617295/13	0.7	134046.0			191494.285714	Y
8	IC 280-617295/12	1.0	194204.0			194204.0	Y
9	IC 280-617295/11	2.5	497844.0			199137.6	Y



10/11/2023
10:32 AM

Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

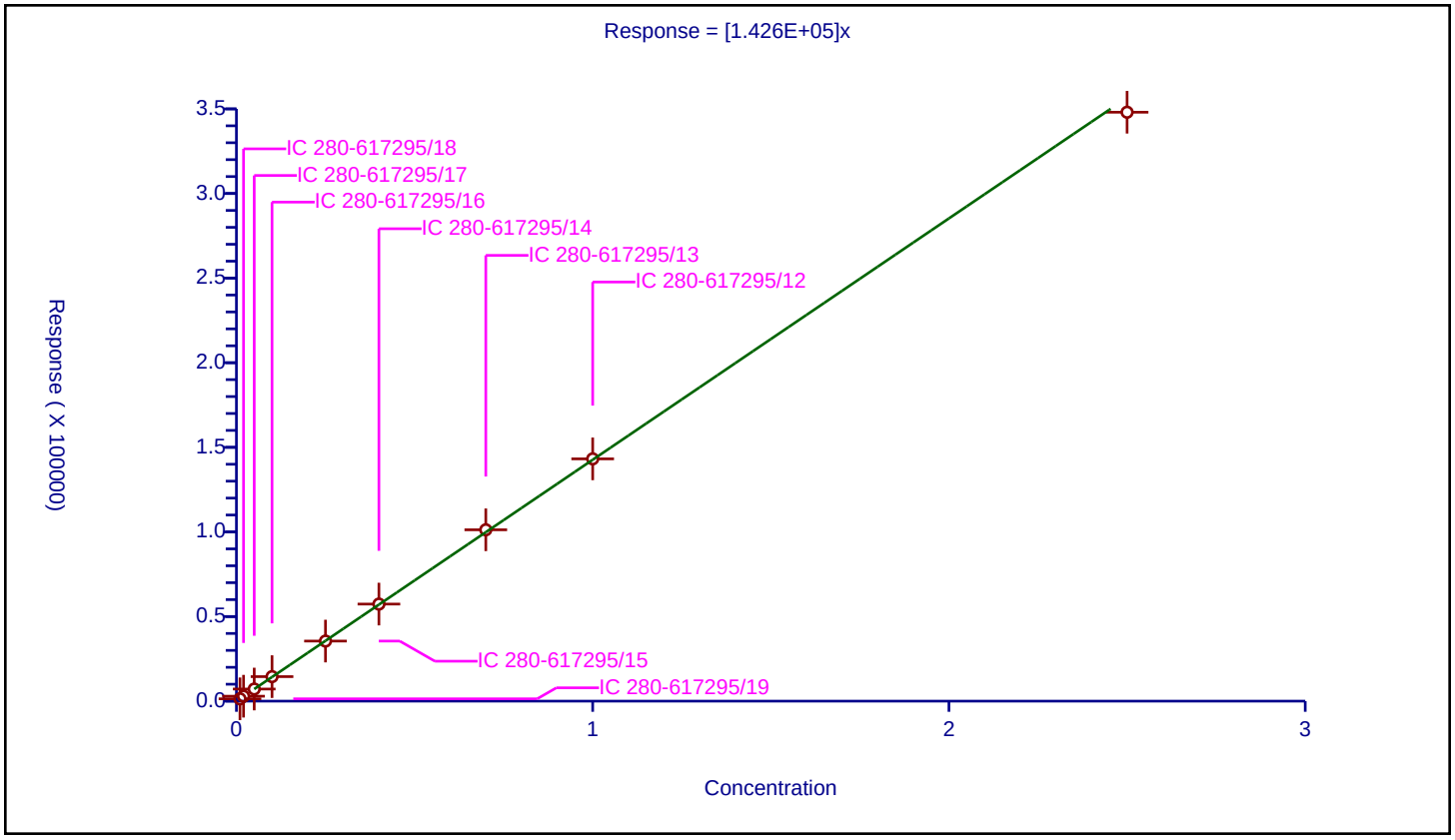
Curve Coefficients

Intercept:	0
Slope:	1.426E+05

Error Coefficients

Standard Error:	3080
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1373.0			137300.0	Y
2	IC 280-617295/18	0.02	2916.0			145800.0	Y
3	IC 280-617295/17	0.05	7160.0			143200.0	Y
4	IC 280-617295/16	0.1	14495.0			144950.0	Y
5	IC 280-617295/15	0.25	35503.0			142012.0	Y
6	IC 280-617295/14	0.4	57368.0			143420.0	Y
7	IC 280-617295/13	0.7	101266.0			144665.714286	Y
8	IC 280-617295/12	1.0	143182.0			143182.0	Y
9	IC 280-617295/11	2.5	348035.0			139214.0	Y



10/11/2023
10:32 AM

Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

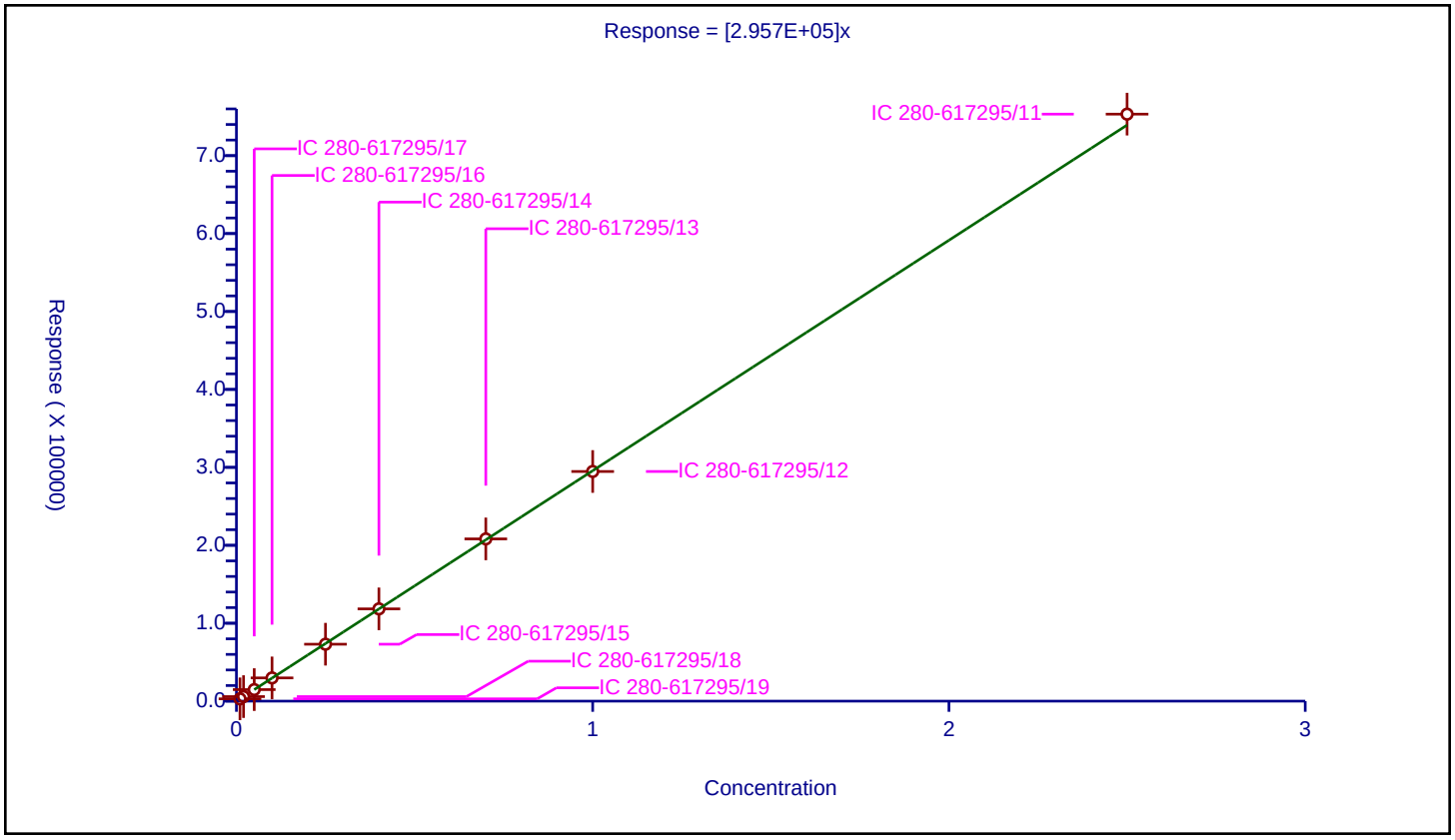
Curve Coefficients

Intercept:	0
Slope:	2.957E+05

Error Coefficients

Standard Error:	4990
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2941.0			294100.0	Y
2	IC 280-617295/18	0.02	5829.0			291450.0	Y
3	IC 280-617295/17	0.05	14800.0			296000.0	Y
4	IC 280-617295/16	0.1	29811.0			298110.0	Y
5	IC 280-617295/15	0.25	73049.0			292196.0	Y
6	IC 280-617295/14	0.4	118425.0			296062.5	Y
7	IC 280-617295/13	0.7	208191.0			297415.714286	Y
8	IC 280-617295/12	1.0	294715.0			294715.0	Y
9	IC 280-617295/11	2.5	753261.0			301304.4	Y



10/11/2023
10:32 AM

Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

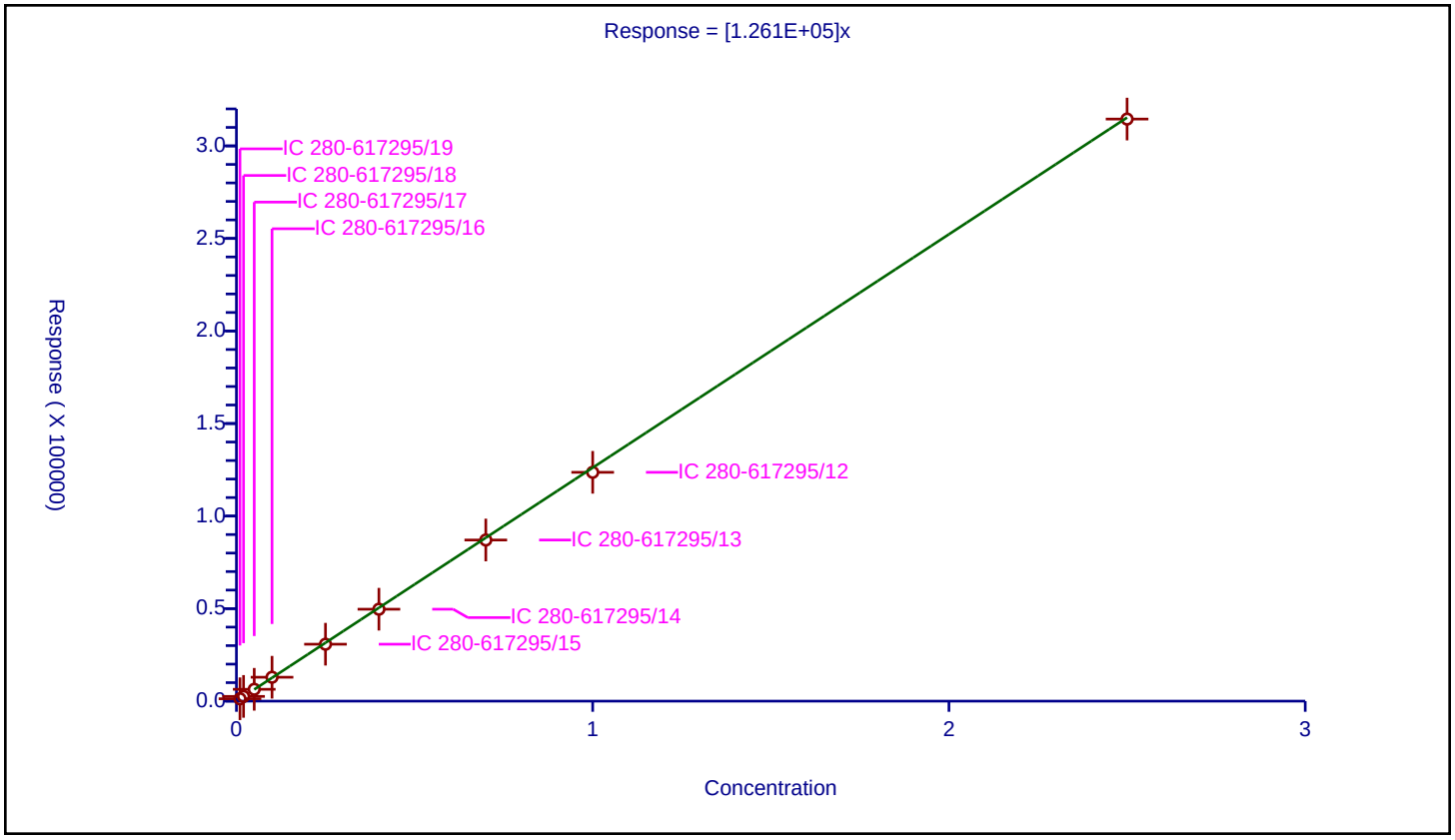
Curve Coefficients

Intercept:	0
Slope:	1.261E+05

Error Coefficients

Standard Error:	1100
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1291.0			129100.0	Y
2	IC 280-617295/18	0.02	2556.0			127800.0	Y
3	IC 280-617295/17	0.05	6403.0			128060.0	Y
4	IC 280-617295/16	0.1	12912.0			129120.0	Y
5	IC 280-617295/15	0.25	30758.0			123032.0	Y
6	IC 280-617295/14	0.4	49671.0			124177.5	Y
7	IC 280-617295/13	0.7	87064.0			124377.142857	Y
8	IC 280-617295/12	1.0	123644.0			123644.0	Y
9	IC 280-617295/11	2.5	314499.0			125799.6	Y



10/11/2023
10:32 AM

Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

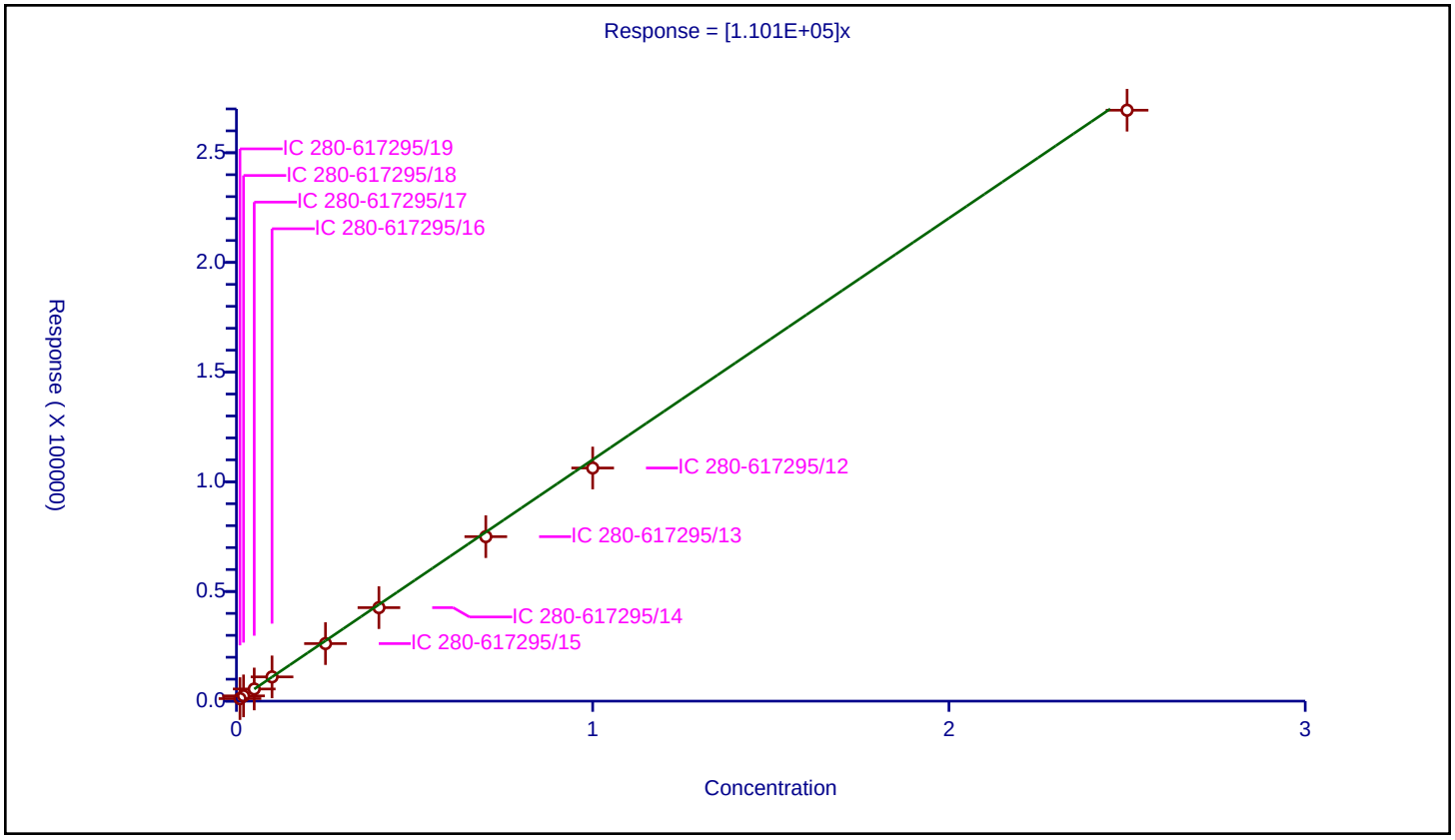
Curve Coefficients

Intercept:	0
Slope:	1.101E+05

Error Coefficients

Standard Error:	2650
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1165.0			116500.0	Y
2	IC 280-617295/18	0.02	2404.0			120200.0	Y
3	IC 280-617295/17	0.05	5543.0			110860.0	Y
4	IC 280-617295/16	0.1	11057.0			110570.0	Y
5	IC 280-617295/15	0.25	26234.0			104936.0	Y
6	IC 280-617295/14	0.4	42626.0			106565.0	Y
7	IC 280-617295/13	0.7	74981.0			107115.714286	Y
8	IC 280-617295/12	1.0	106286.0			106286.0	Y
9	IC 280-617295/11	2.5	269407.0			107762.8	Y



10/11/2023
10:32 AM

Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

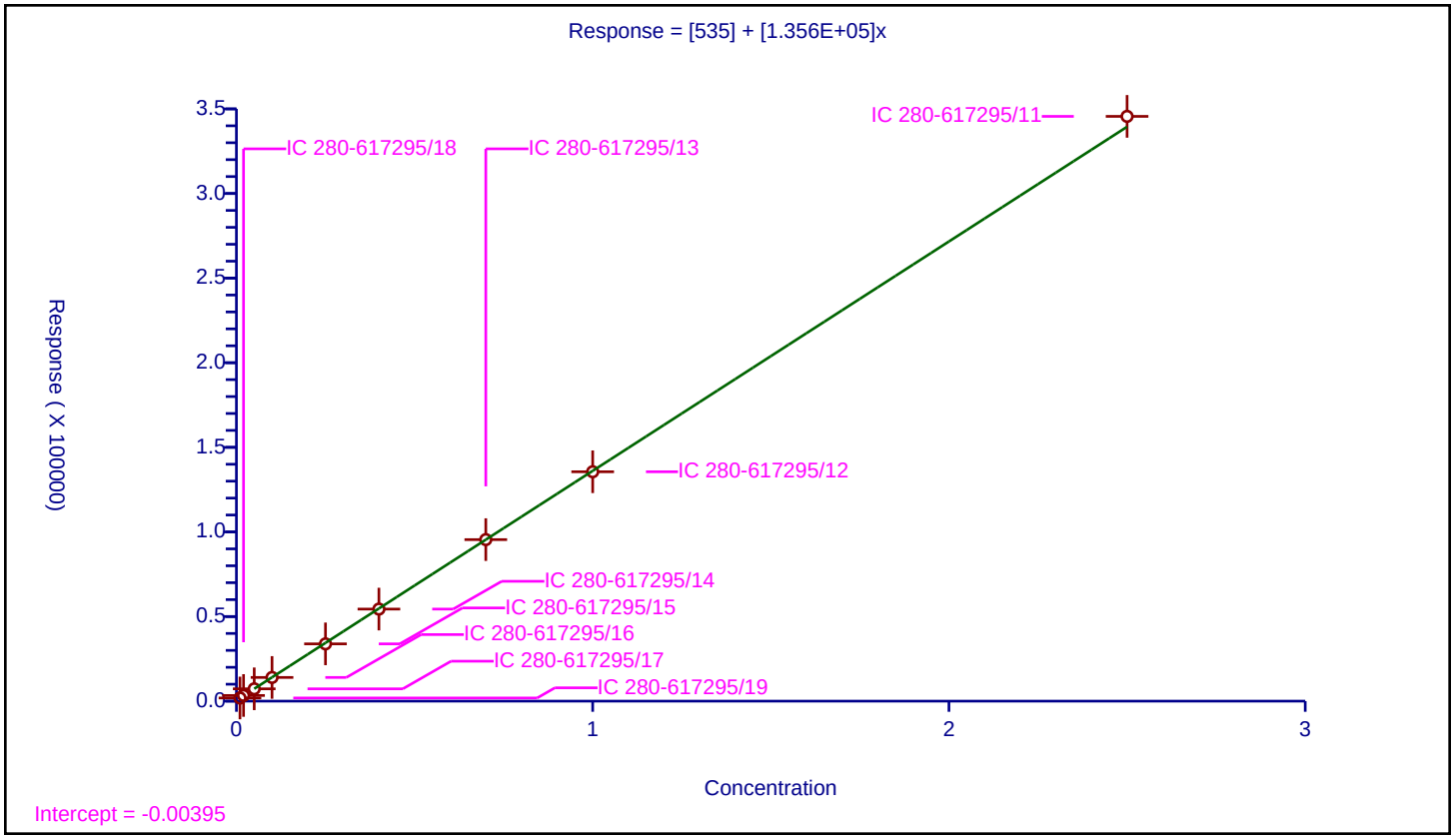
Curve Coefficients

Intercept:	535
Slope:	1.356E+05

Error Coefficients

Standard Error:	2350
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1870.0			187000.0	Y
2	IC 280-617295/18	0.02	3341.0			167050.0	Y
3	IC 280-617295/17	0.05	7282.0			145640.0	Y
4	IC 280-617295/16	0.1	14001.0			140010.0	Y
5	IC 280-617295/15	0.25	33854.0			135416.0	Y
6	IC 280-617295/14	0.4	54401.0			136002.5	Y
7	IC 280-617295/13	0.7	95457.0			136367.142857	Y
8	IC 280-617295/12	1.0	135553.0			135553.0	Y
9	IC 280-617295/11	2.5	345577.0			138230.8	Y



10/11/2023
10:32 AM

Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

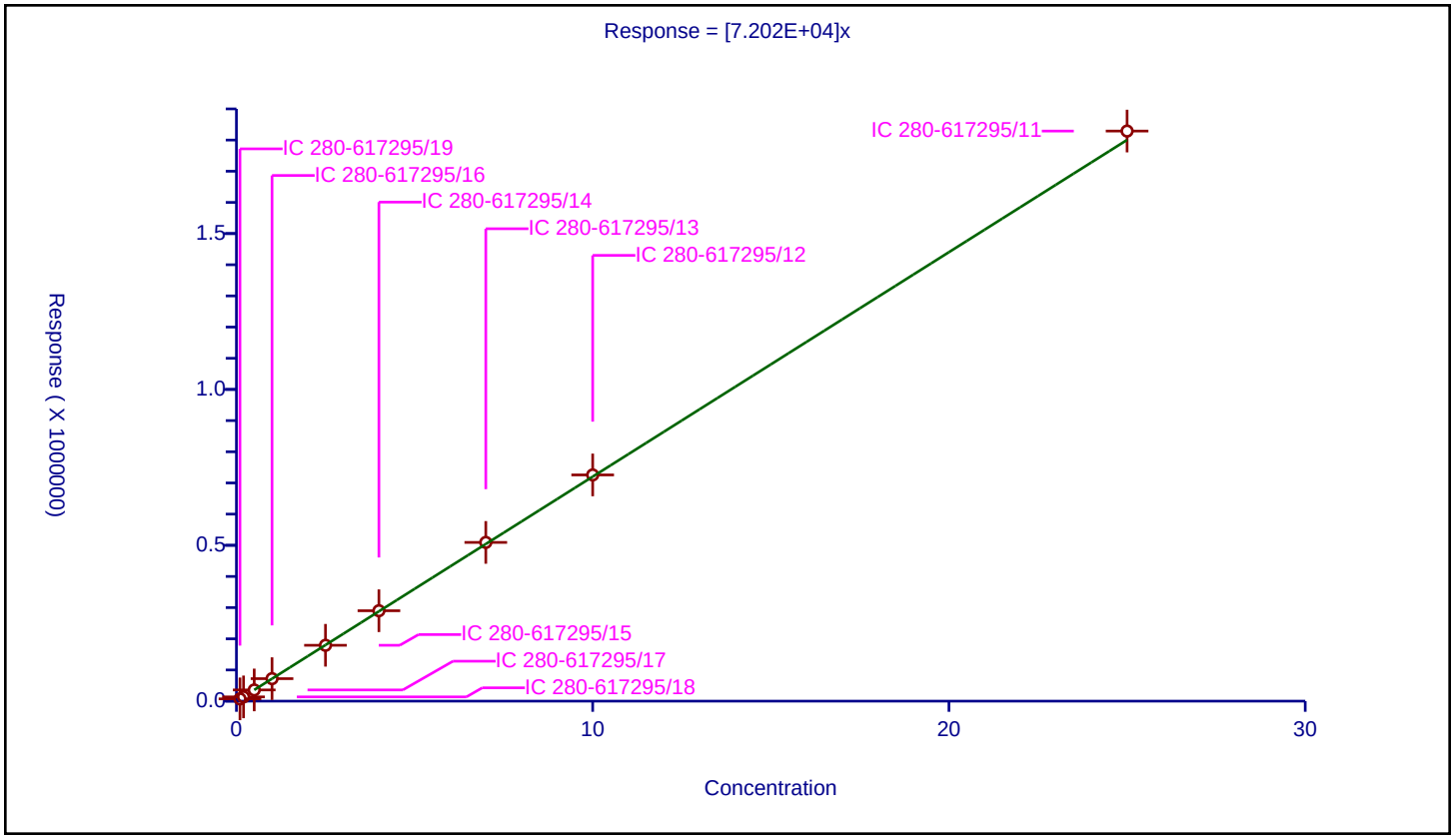
Curve Coefficients

Intercept:	0
Slope:	7.202E+04

Error Coefficients

Standard Error:	10400
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.1	7328.0			73280.0	Y
2	IC 280-617295/18	0.2	13637.0			68185.0	Y
3	IC 280-617295/17	0.5	35921.0			71842.0	Y
4	IC 280-617295/16	1.0	72200.0			72200.0	Y
5	IC 280-617295/15	2.5	179178.0			71671.2	Y
6	IC 280-617295/14	4.0	290067.0			72516.75	Y
7	IC 280-617295/13	7.0	509169.0			72738.428571	Y
8	IC 280-617295/12	10.0	725734.0			72573.4	Y
9	IC 280-617295/11	25.0	1828875.0			73155.0	Y



10/11/2023
10:32 AM

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 Calibration End Date: 06/24/2023 00:23 Calibration ID: 81927

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	6.470	6.478	6.471	6.475	6.474	6.474	6.467	6.467			6.325 - 6.625	6.472
2,4-diamino-6-nitrotoluene	6.663	6.672	6.664	6.669	6.668	6.668	6.660	6.661			6.519 - 6.819	6.666

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 Calibration End Date: 06/24/2023 00:23 Calibration ID: 81927

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.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 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	220600 213353	263000 220126	226520 222122	225404 213398	Ave		225565.227				7.0		20.0			
2,4-diamino-6-nitrotoluene	156550 131303	165000 137551	144420 139337	140720 131729	Ave		143326.266				8.3		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.: 280-181950-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 | Calibration End Date: 06/24/2023 00:23 | Calibration ID: 81927

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	4412 154088	10520 222122	22652 533494	56351	85341	0.0200 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	3131 96286	6600 139337	14442 329323	35180	52521	0.0200 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230021.D				
Lims ID:	IC ADD 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	23-Jun-2023 21:43:15	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 8				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-Jun-2023 12:55:52	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1681				
First Level Reviewer: LV5D		Date:	24-Jun-2023 10:41:47		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.467	6.475	-0.008	533494	2.50	2.37	M
5 2,4-diamino-6-nitrotoluene	1	6.661	6.669	-0.008	329323	2.50	2.30	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 125.00 Units: uL

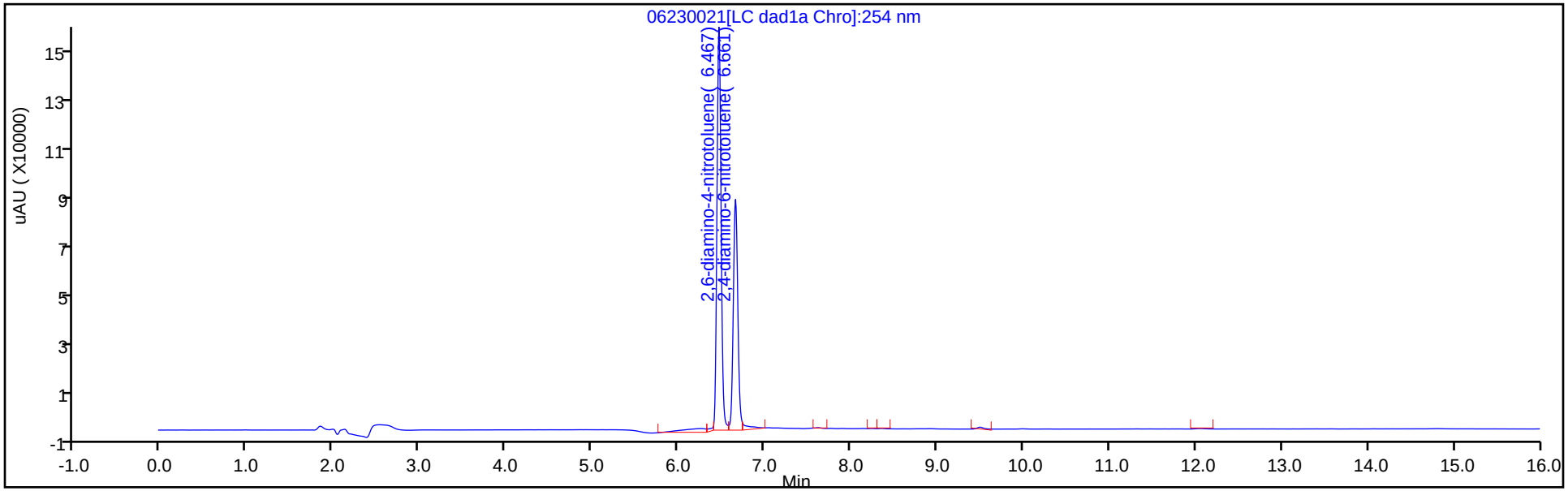
Report Date: 24-Jun-2023 12:55:52 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

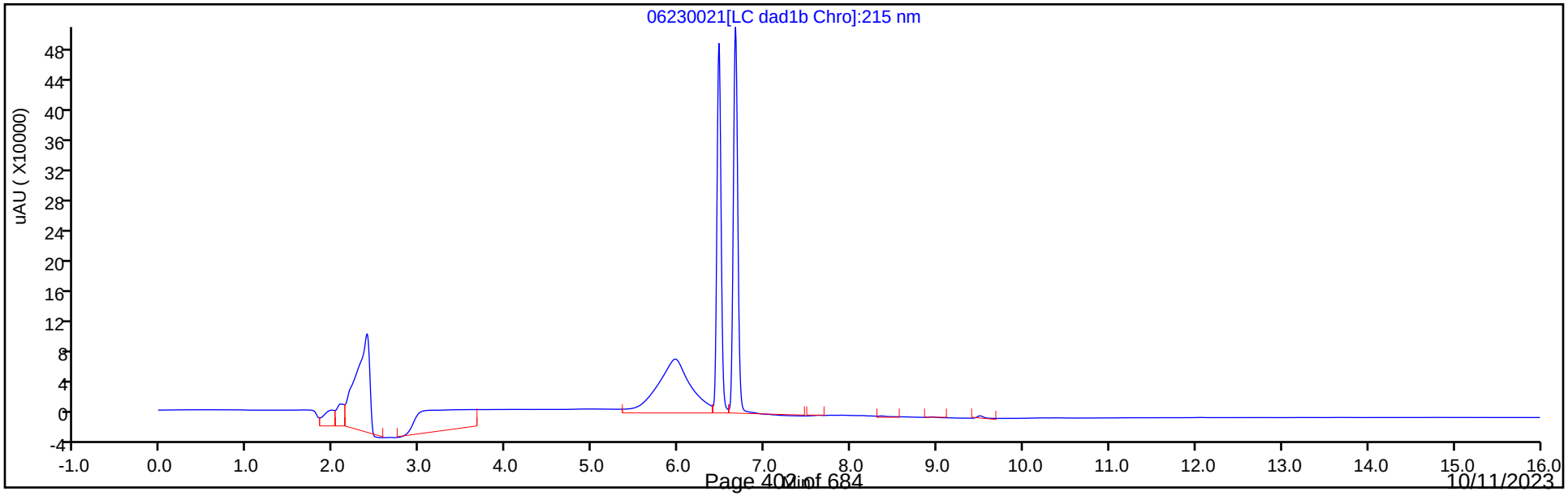
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d

Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
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



Manual Integration/User Assign Peak Report

Eurofins Denver

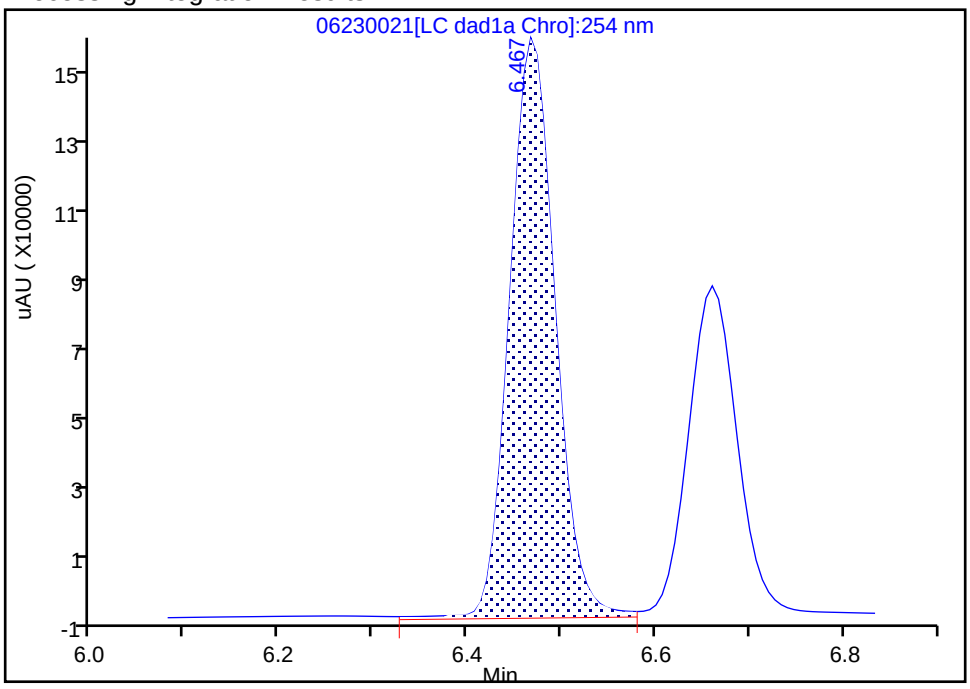
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d				
Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

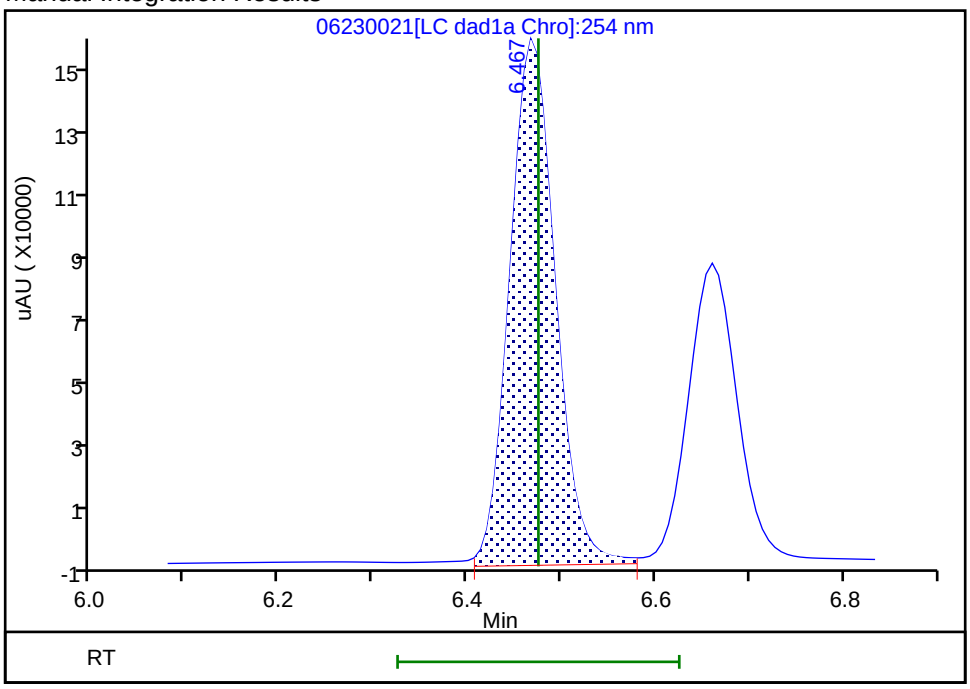
Processing Integration Results

RT: 6.47
Area: 539094
Amount: 2.445370
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 533494
Amount: 2.365143
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

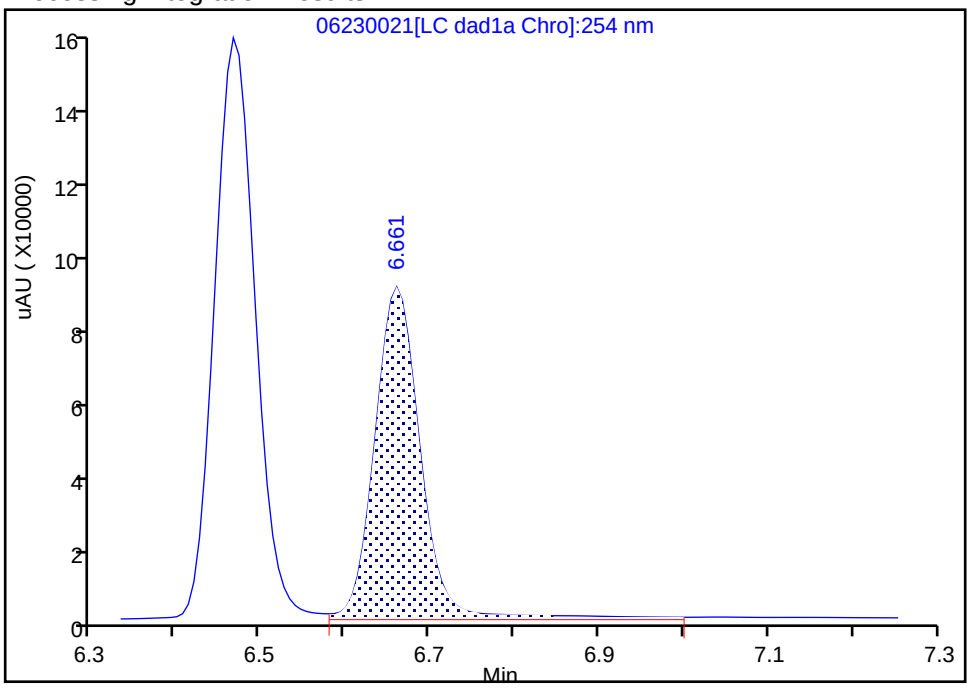
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d				
Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

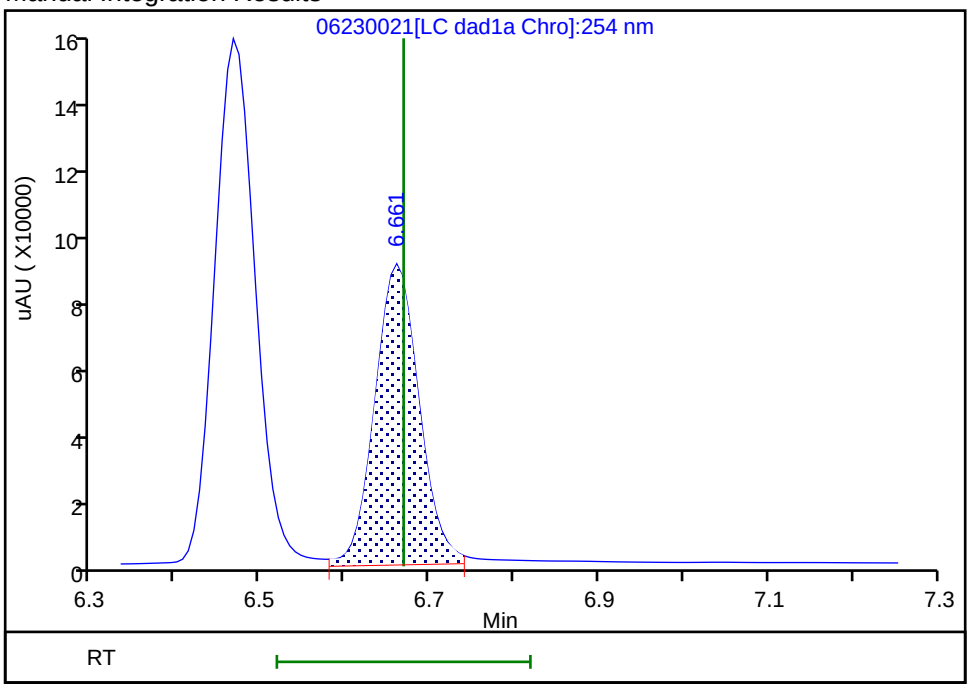
Processing Integration Results

RT: 6.66
Area: 343766
Amount: 2.533529
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 329323
Amount: 2.297716
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:43 -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\20230623-122860.b\06230022.D				
Lims ID:	IC ADD 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	23-Jun-2023 22:06:06	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 7				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-Jun-2023 12:55:52	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1681				
First Level Reviewer: LV5D		Date:	24-Jun-2023 10:41:59		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.467	6.475	-0.008	222122	1.00	0.9847	M
5 2,4-diamino-6-nitrotoluene	1	6.660	6.669	-0.009	139337	1.00	0.9722	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 50.00 Units: uL

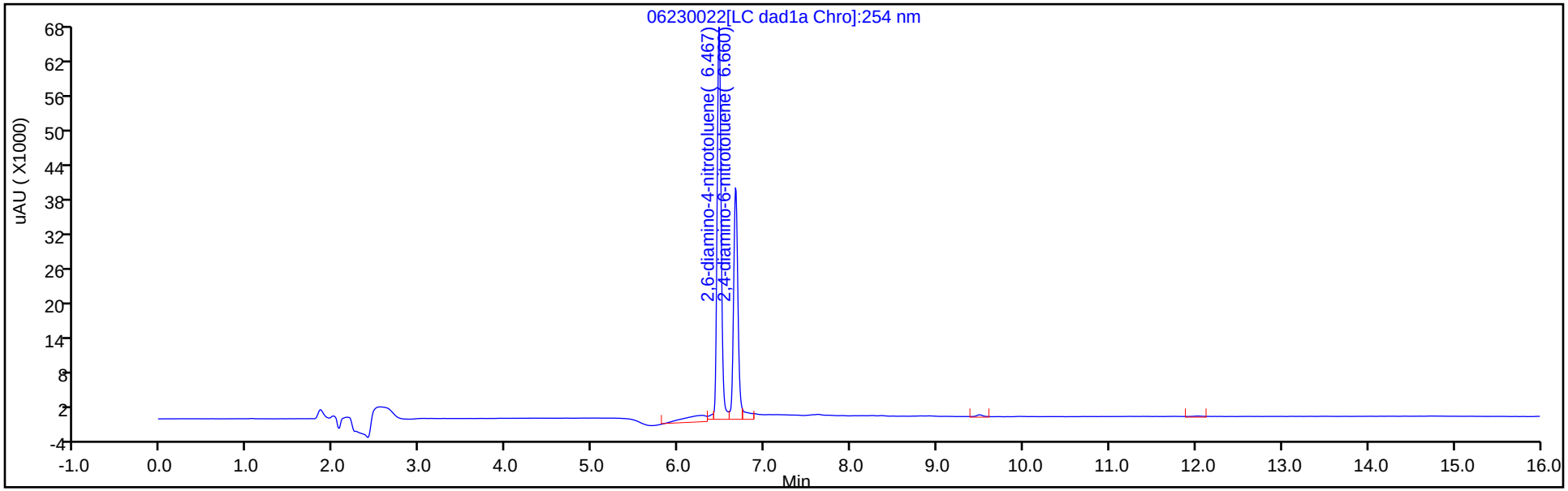
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

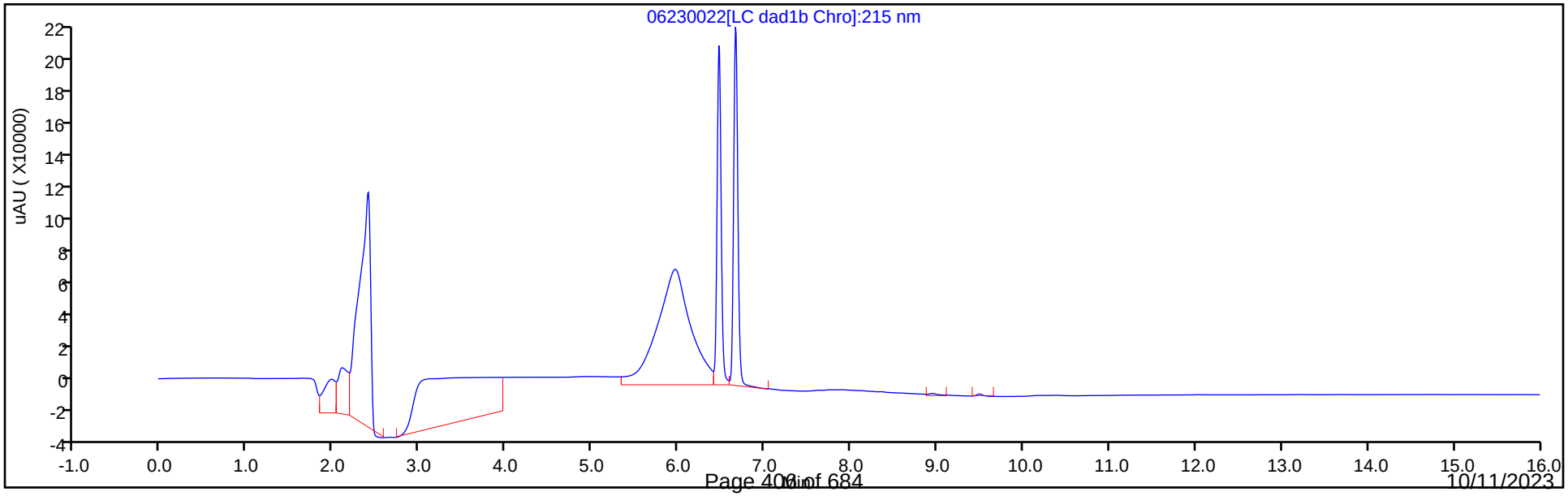
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d

Injection Date:	23-Jun-2023 22:06:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
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



Manual Integration/User Assign Peak Report

Eurofins Denver

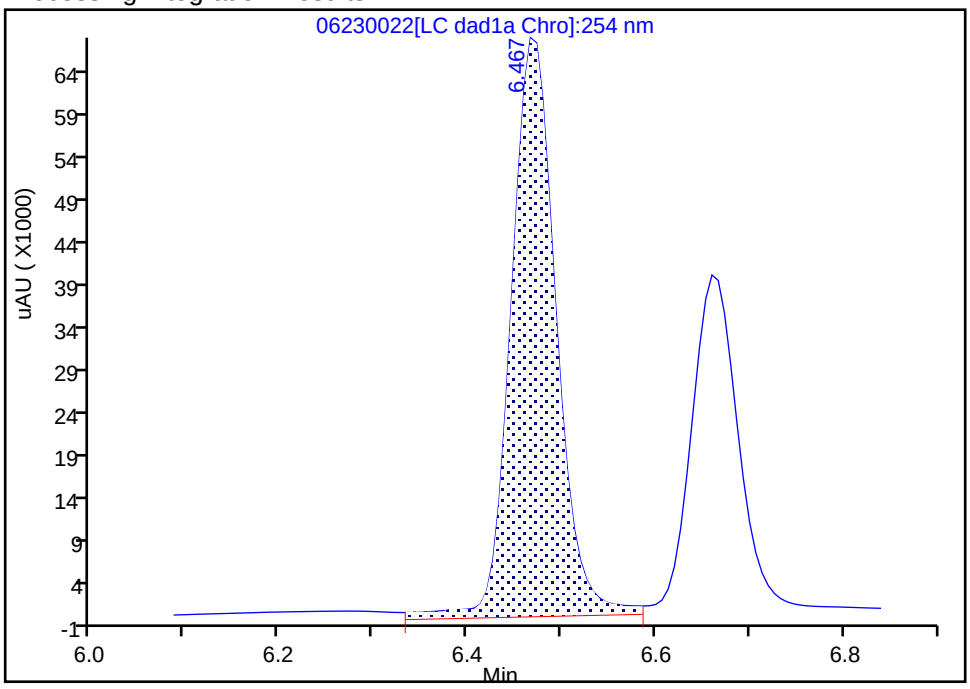
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d				
Injection Date:	23-Jun-2023 22:06:06	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

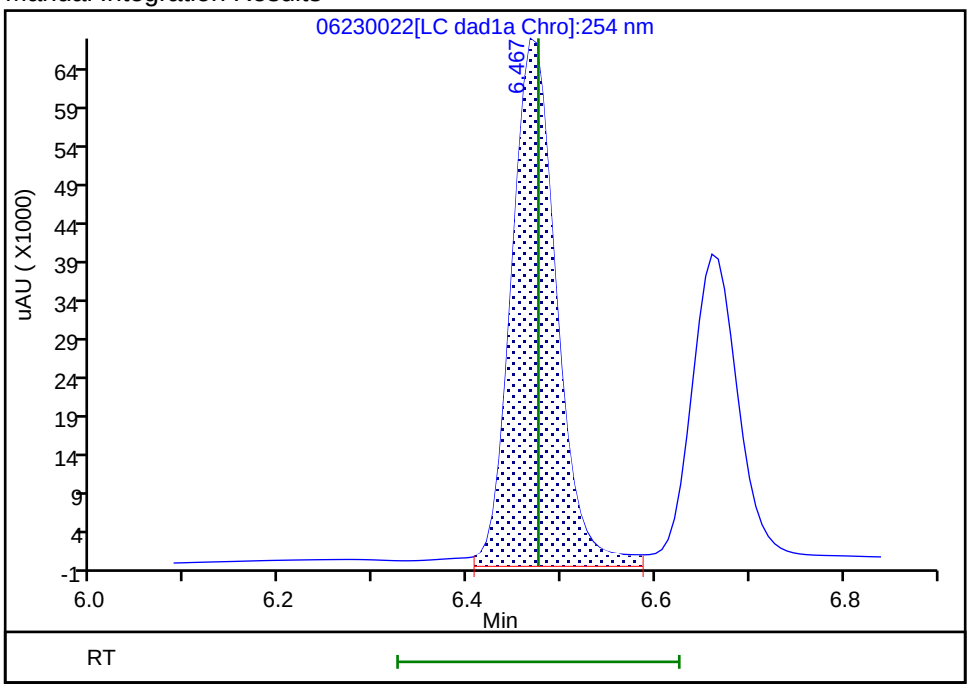
Processing Integration Results

RT: 6.47
Area: 225519
Amount: 0.988383
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 222122
Amount: 0.984735
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:56 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

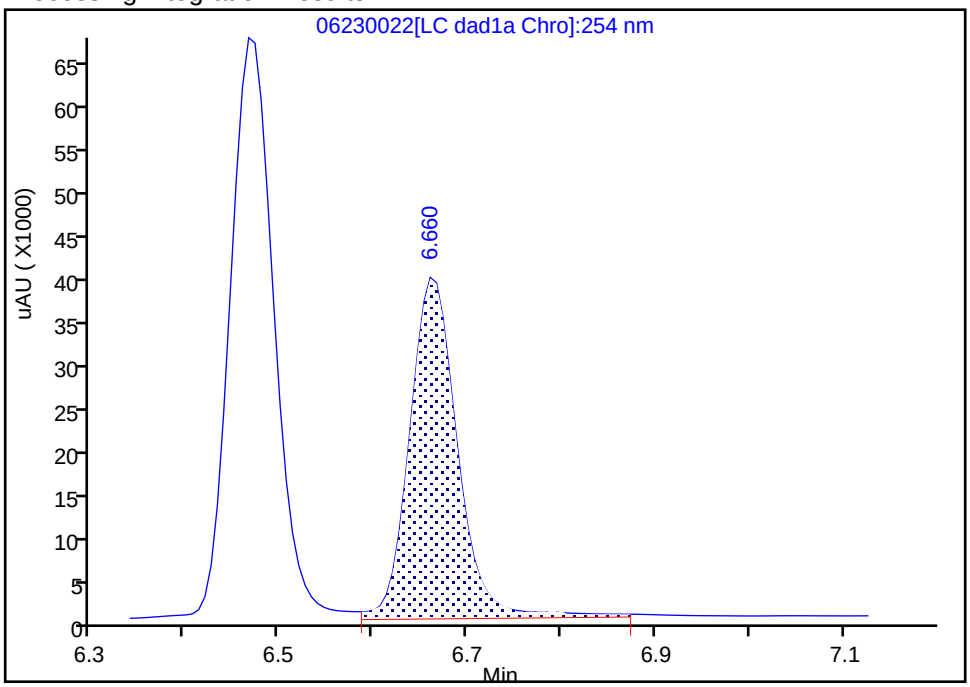
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d
Injection Date: 23-Jun-2023 22:06:06 Instrument ID: CHHPLC_X3
Lims ID: IC ADD 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

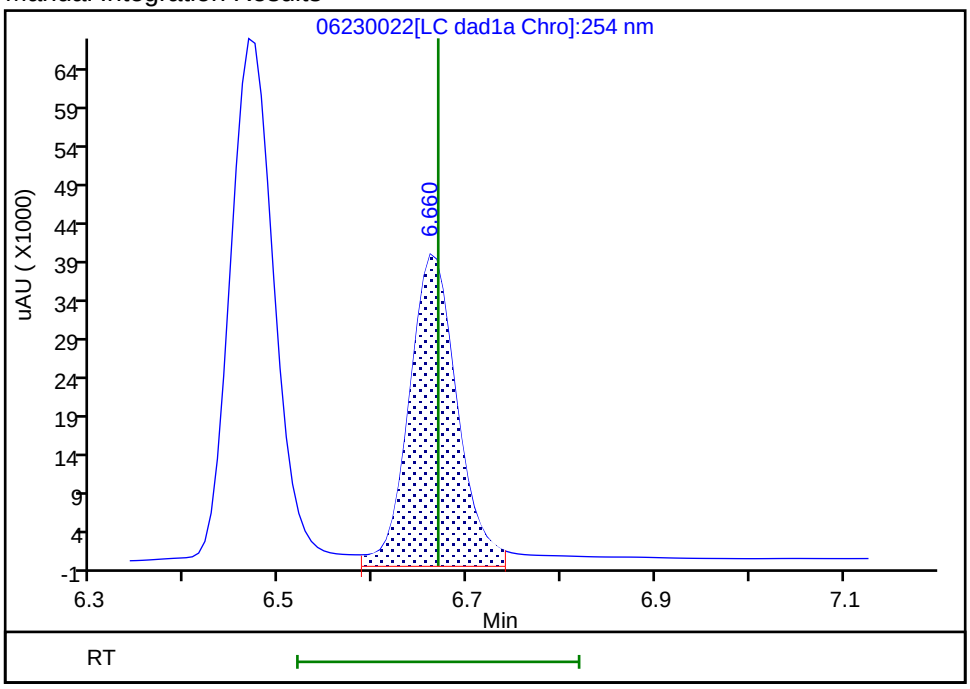
Processing Integration Results

RT: 6.66
Area: 139316
Amount: 0.997706
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 139337
Amount: 0.972167
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:57 -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\20230623-122860.b\06230023.D
Lims ID: IC ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Jun-2023 22:29:01 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:53 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.474	6.475	-0.001	154088	0.7000	0.6831	M
5 2,4-diamino-6-nitrotoluene	1	6.668	6.669	-0.001	96286	0.7000	0.6718	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 35.00 Units: uL

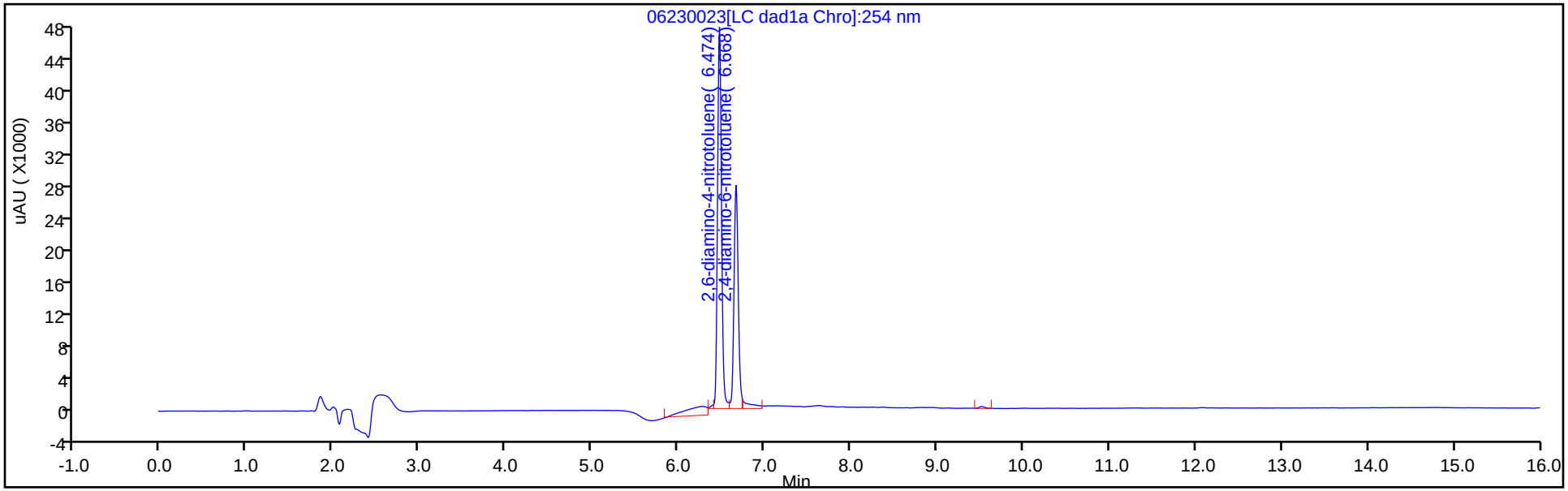
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

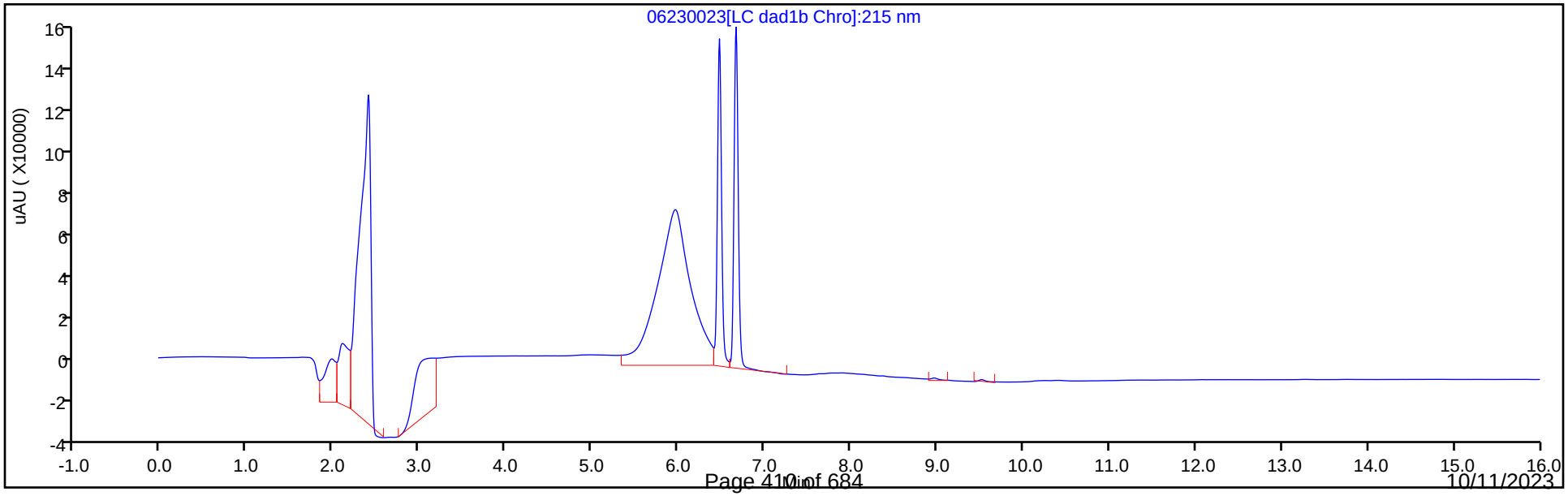
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d

Injection Date:	23-Jun-2023 22:29:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

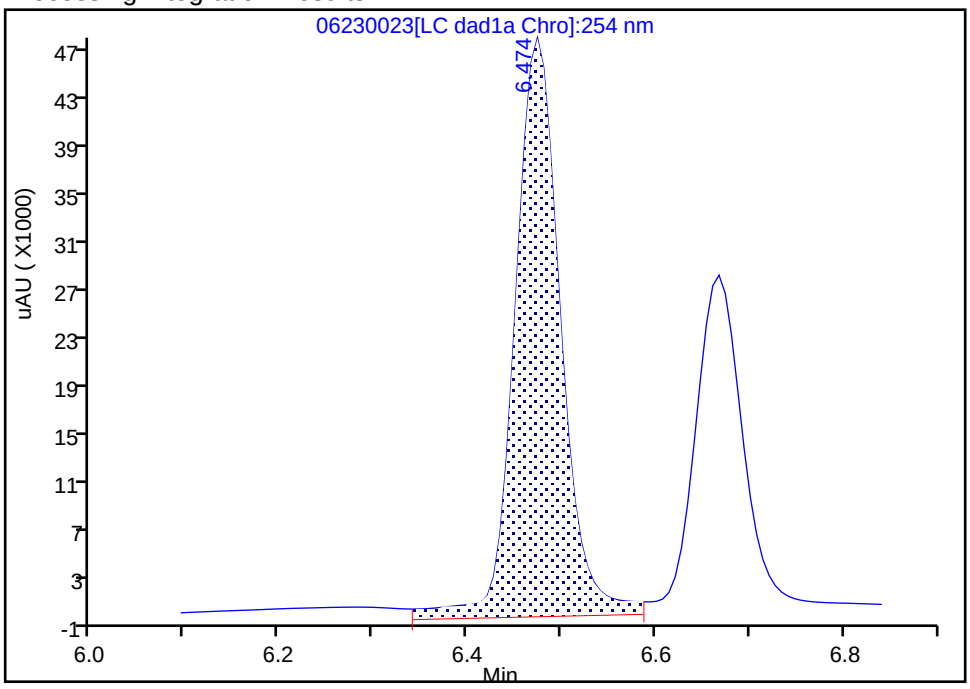
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d
Injection Date: 23-Jun-2023 22:29:01 Instrument ID: CHHPLC_X3
Lims ID: IC ADD 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

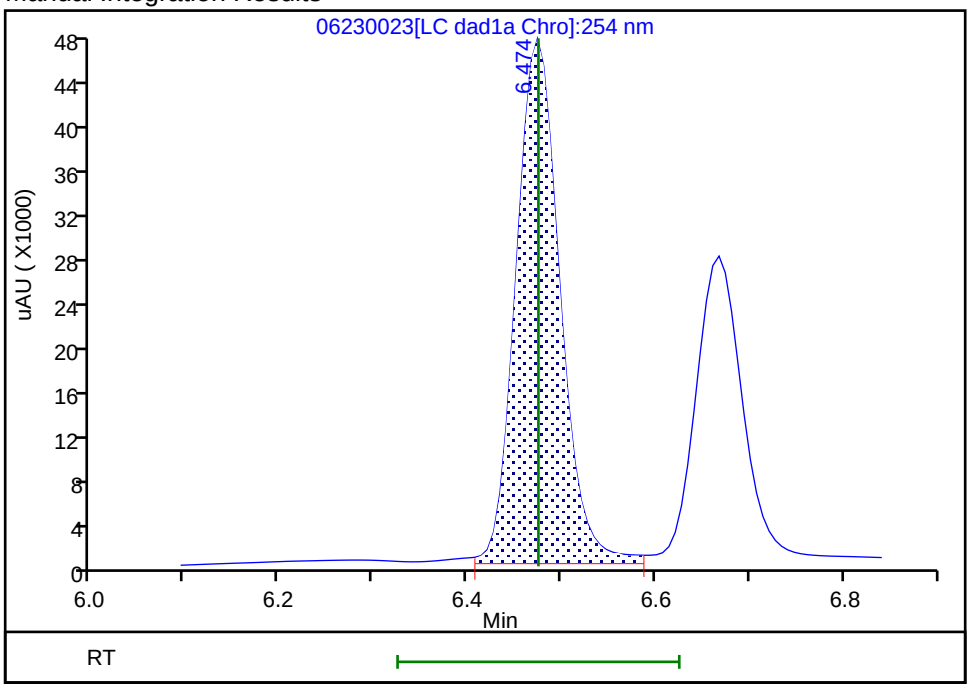
Processing Integration Results

RT: 6.47
Area: 162603
Amount: 0.697057
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 154088
Amount: 0.683119
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:06 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

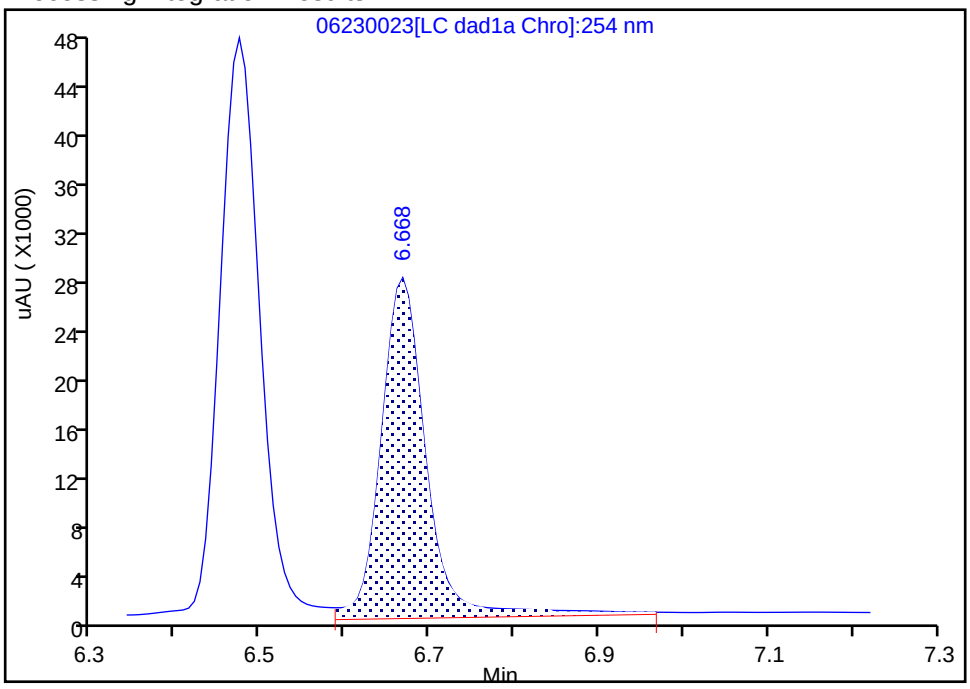
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d				
Injection Date:	23-Jun-2023 22:29:01	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

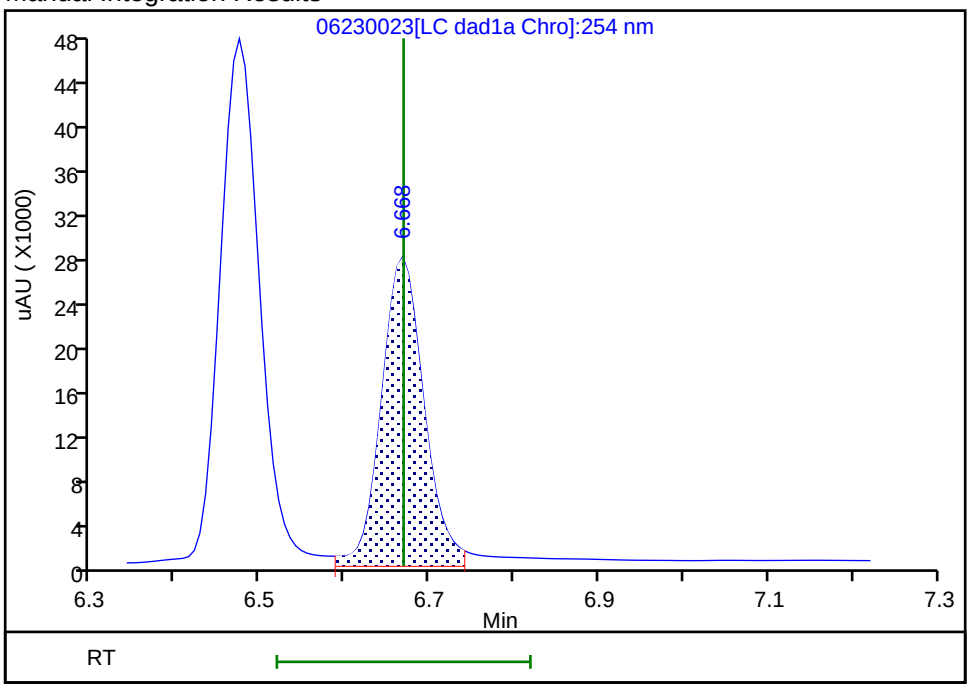
Processing Integration Results

RT: 6.67
Area: 105227
Amount: 0.731247
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 96286
Amount: 0.671796
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:07 -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\20230623-122860.b\06230024.D
Lims ID: IC ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Jun-2023 22:52:03 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:53 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.474	6.475	-0.001	85341	0.4000	0.3783	M
5 2,4-diamino-6-nitrotoluene	1	6.668	6.669	-0.001	52521	0.4000	0.3664	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 20.00 Units: uL

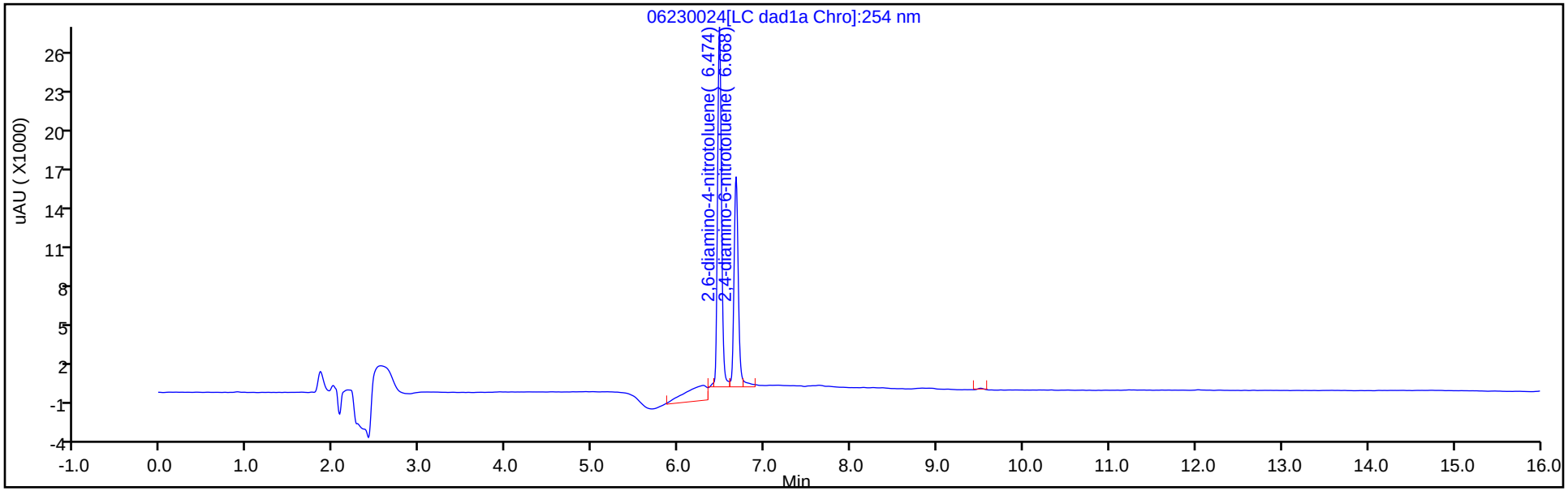
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

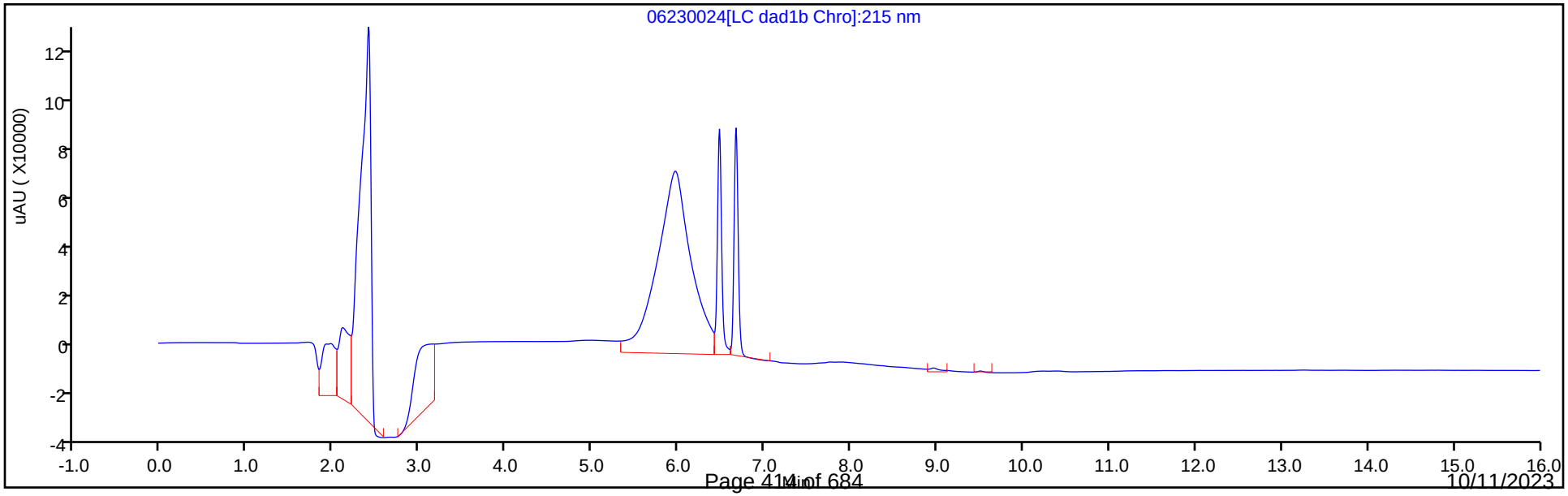
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d

Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

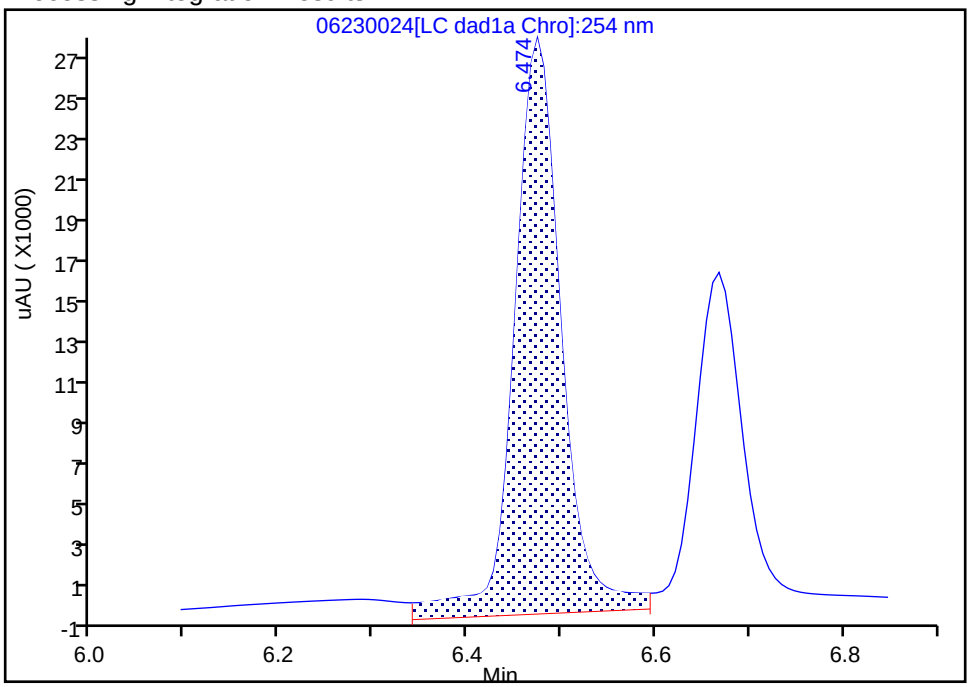
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d				
Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

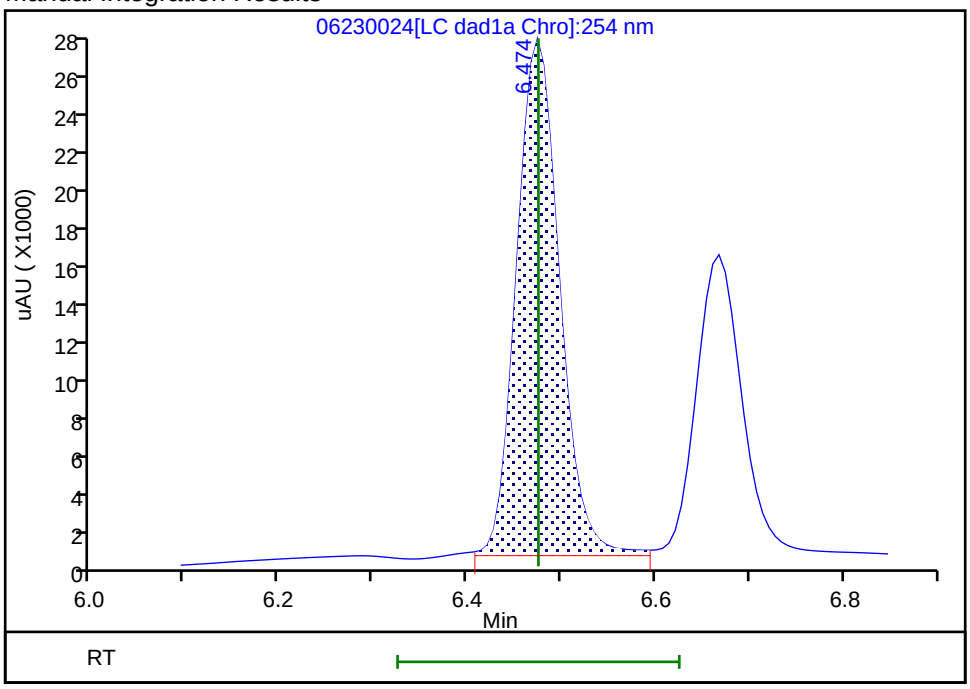
Processing Integration Results

RT: 6.47
Area: 96404
Amount: 0.391345
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 85341
Amount: 0.378343
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:20 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

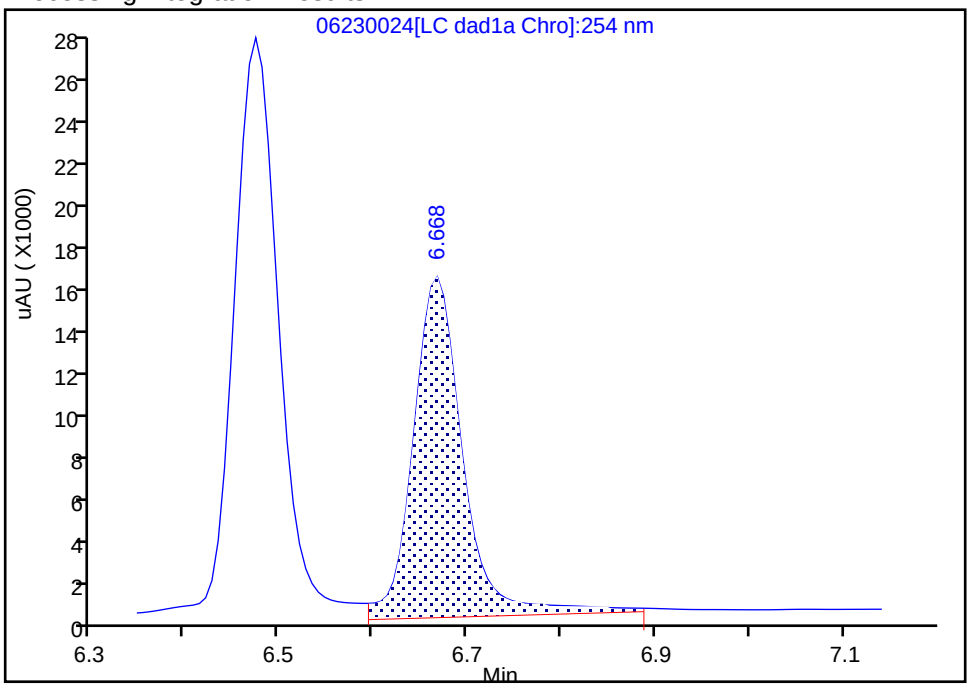
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d				
Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

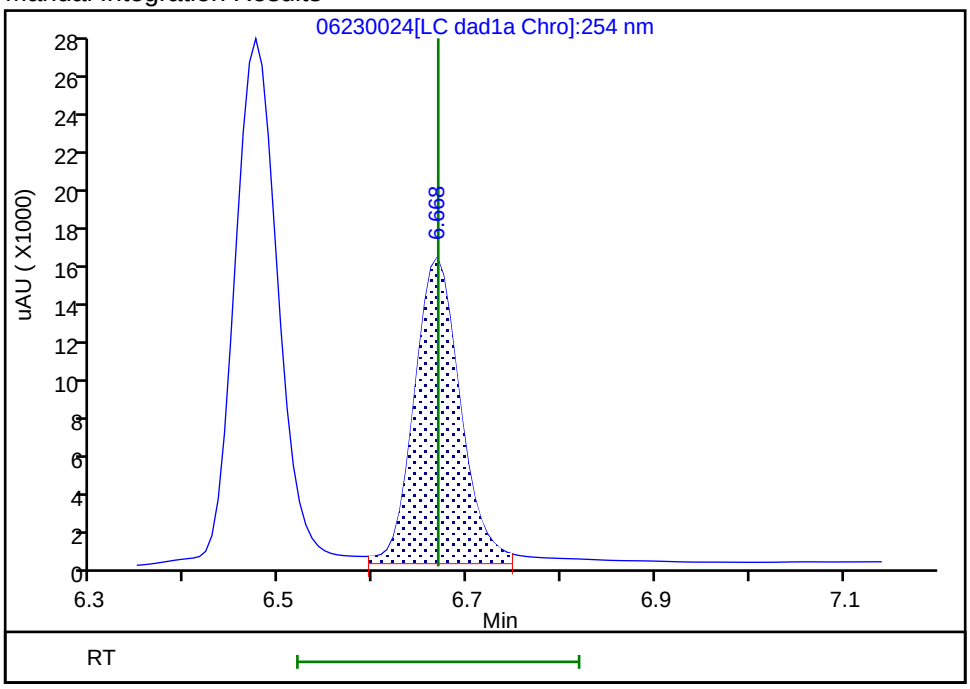
Processing Integration Results

RT: 6.67
Area: 59274
Amount: 0.377302
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 52521
Amount: 0.366444
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:21 -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\20230623-122860.b\06230025.D
Lims ID: IC ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Jun-2023 23:14:58 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:54 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.475	6.475	0.000	56351	0.2500	0.2498	M
5 2,4-diamino-6-nitrotoluene	1	6.669	6.669	0.000	35180	0.2500	0.2455	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

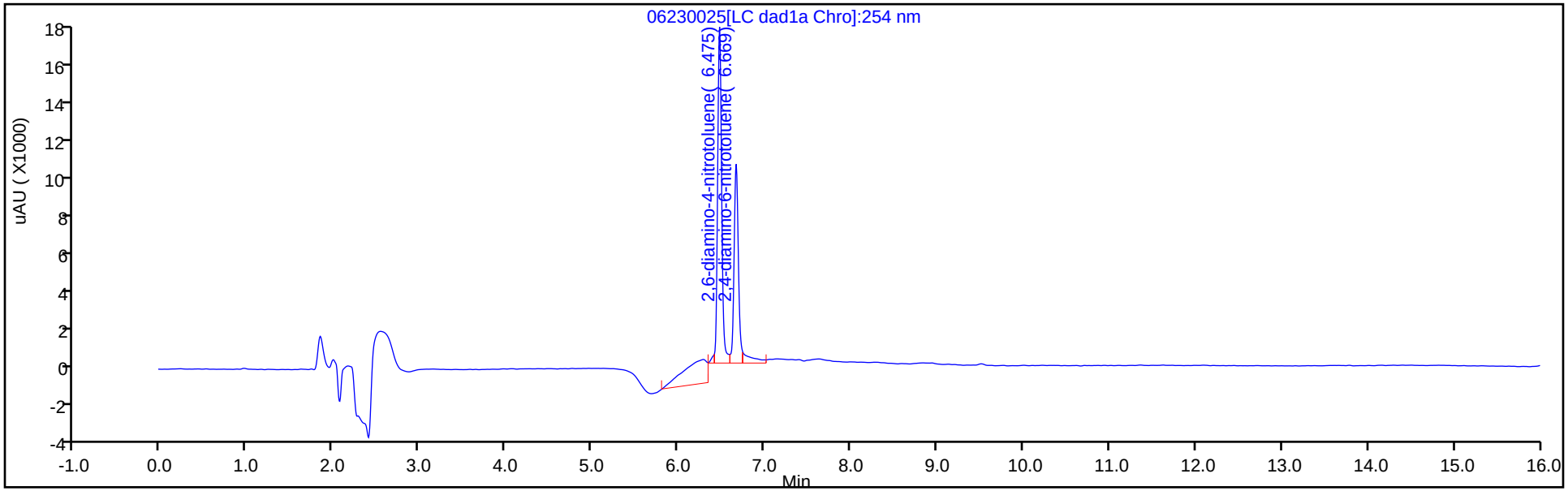
Report Date: 24-Jun-2023 12:55:54 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

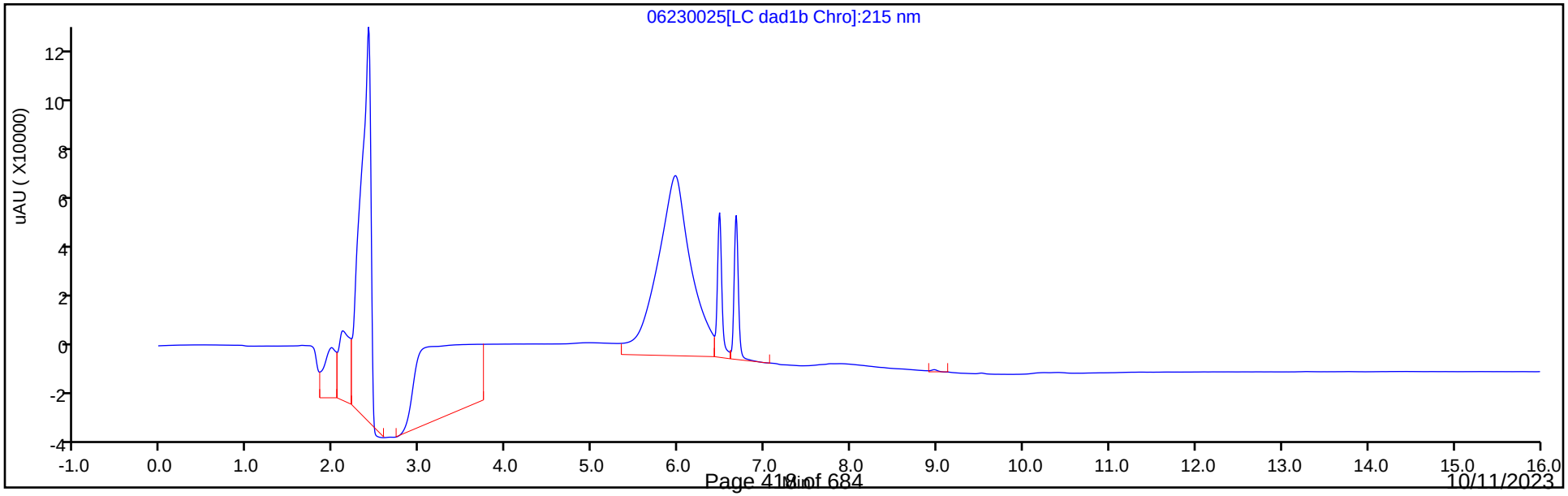
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d

Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

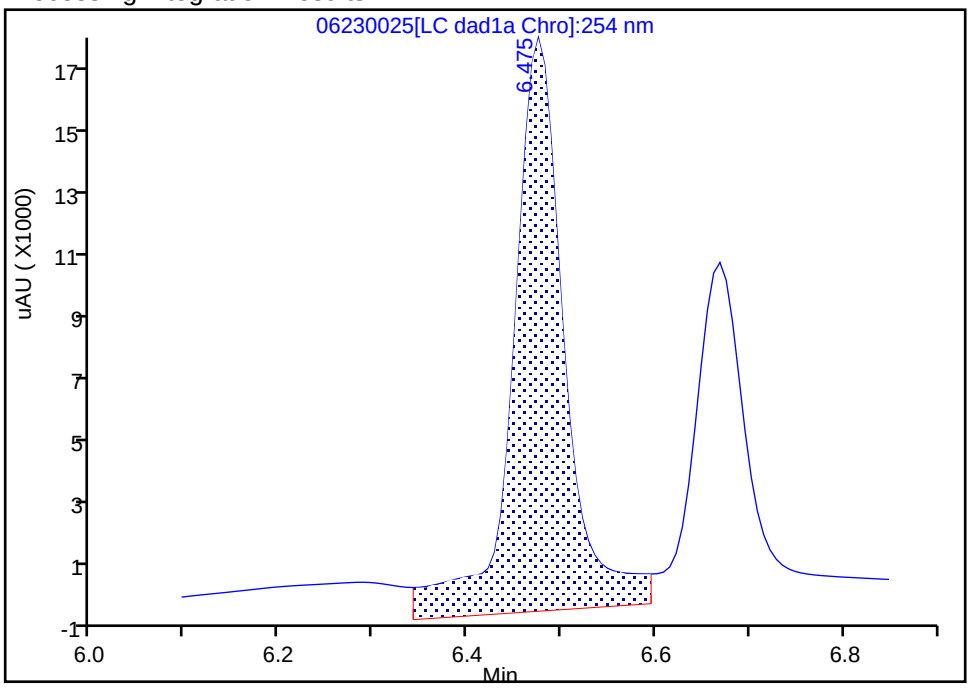
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d				
Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

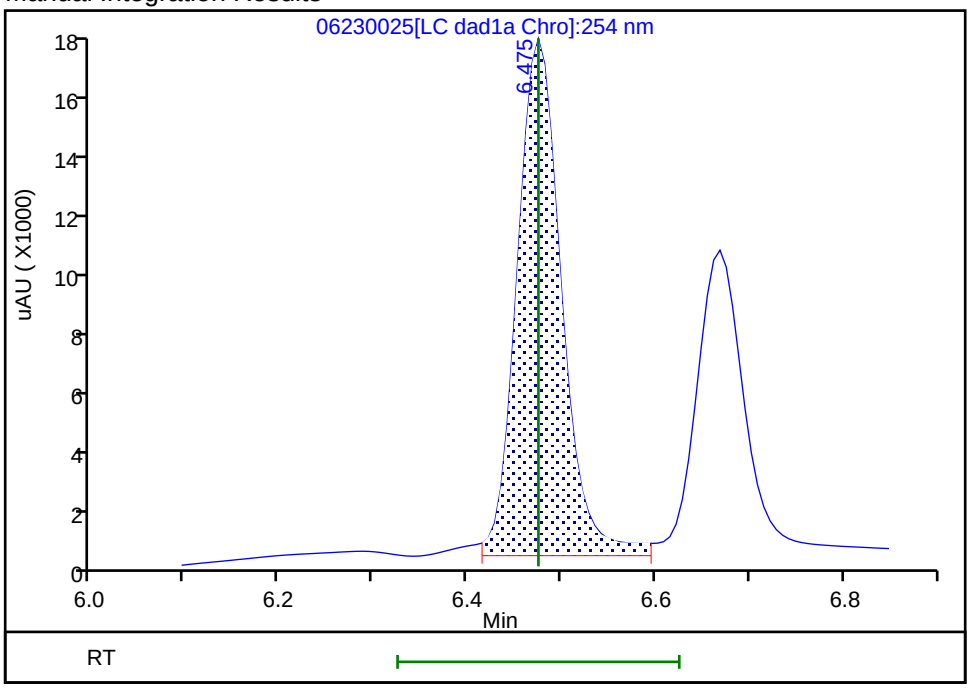
Processing Integration Results

RT: 6.48
Area: 69279
Amount: 0.268827
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 56351
Amount: 0.249821
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

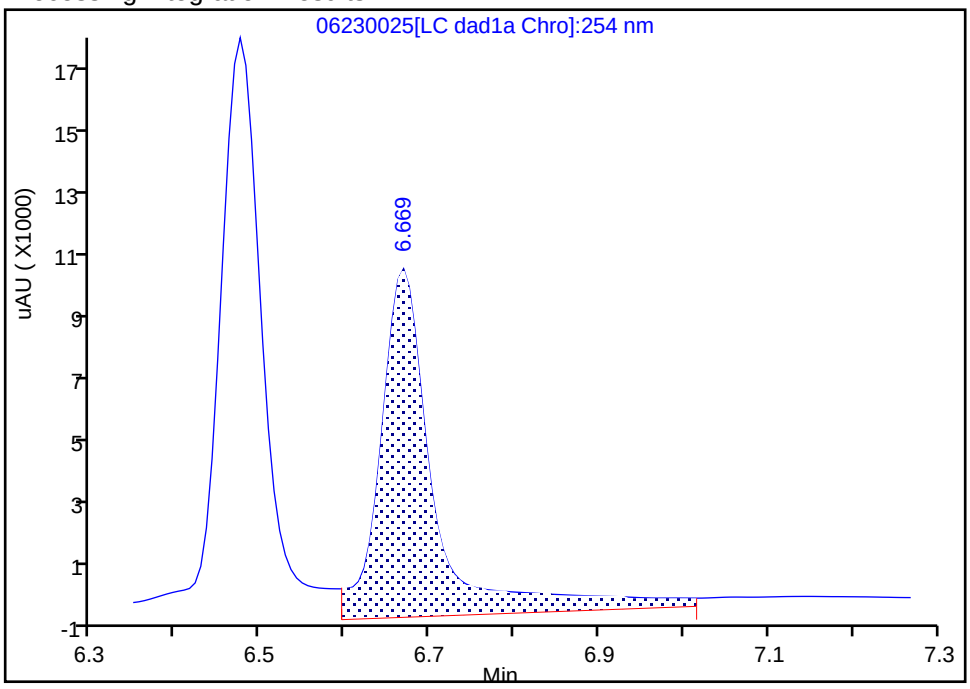
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d				
Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

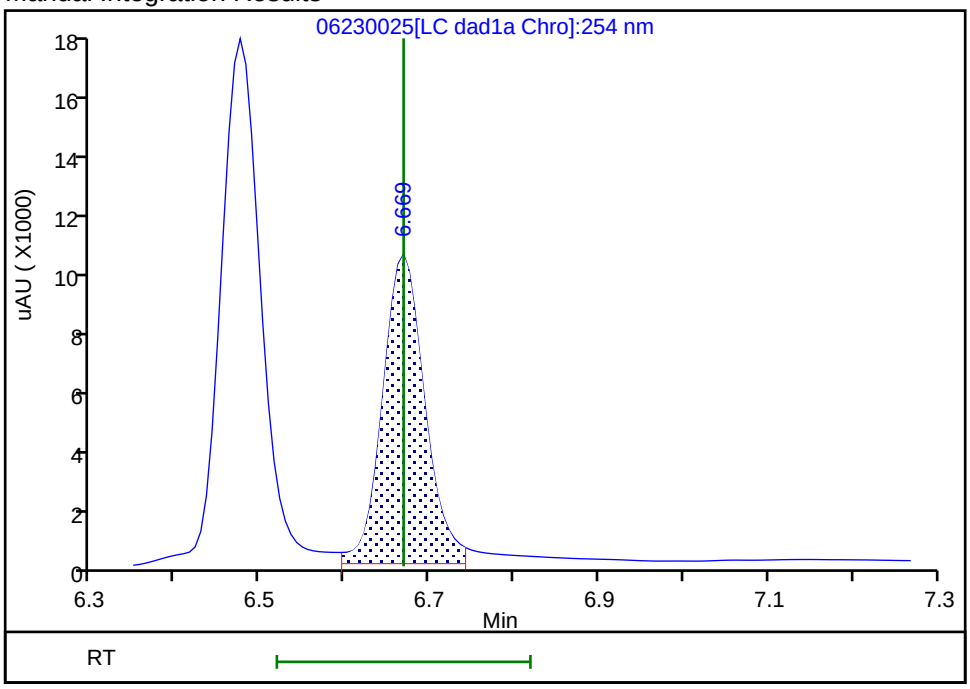
Processing Integration Results

RT: 6.67
Area: 47664
Amount: 0.288662
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 35180
Amount: 0.245454
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:35 -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\20230623-122860.b\06230026.D
Lims ID: IC ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Jun-2023 23:37:56 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:54 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.471	6.475	-0.004	22652	0.1000	0.1004	M
5 2,4-diamino-6-nitrotoluene	1	6.664	6.669	-0.005	14442	0.1000	0.1008	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 5.00 Units: uL

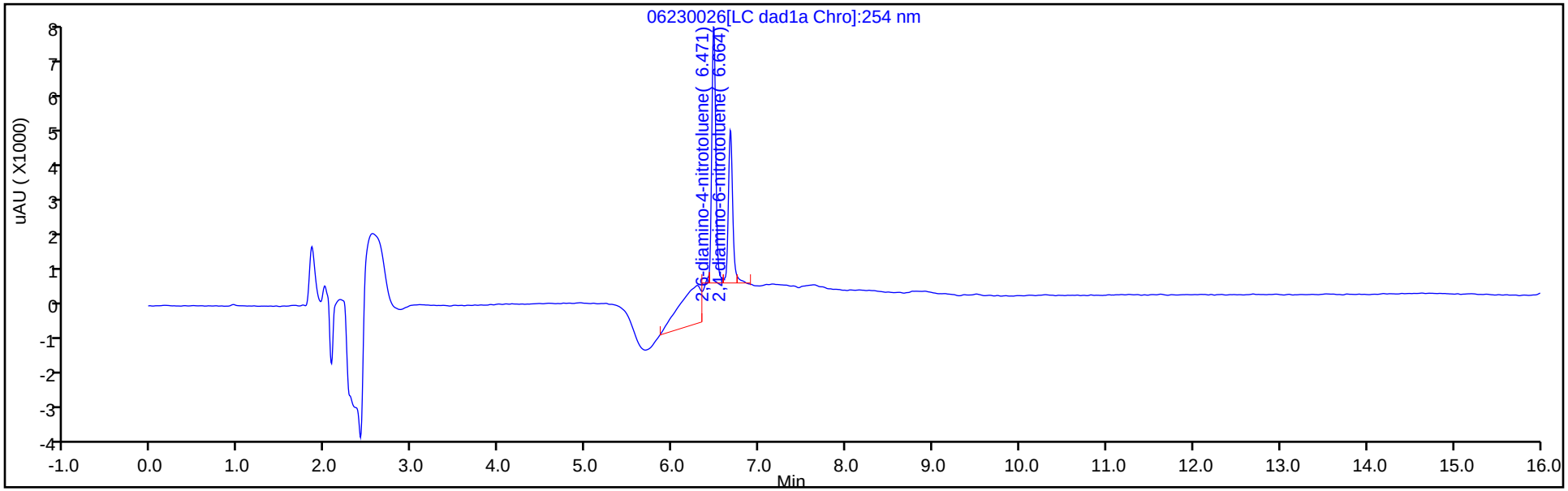
Report Date: 24-Jun-2023 12:55:54 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

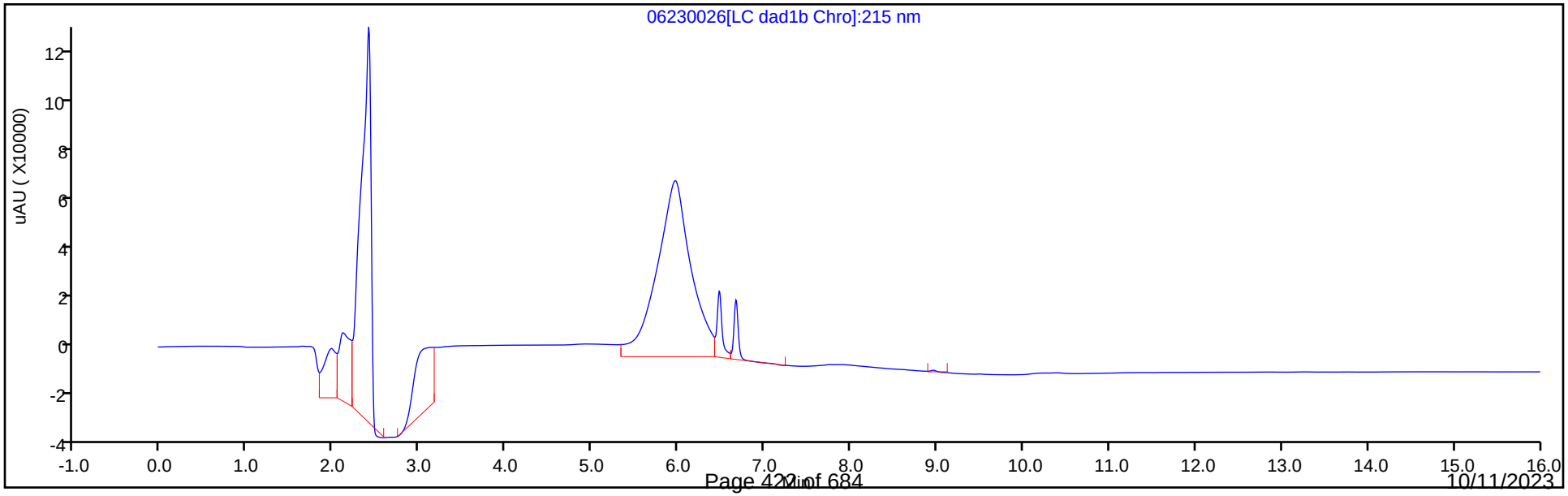
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d

Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

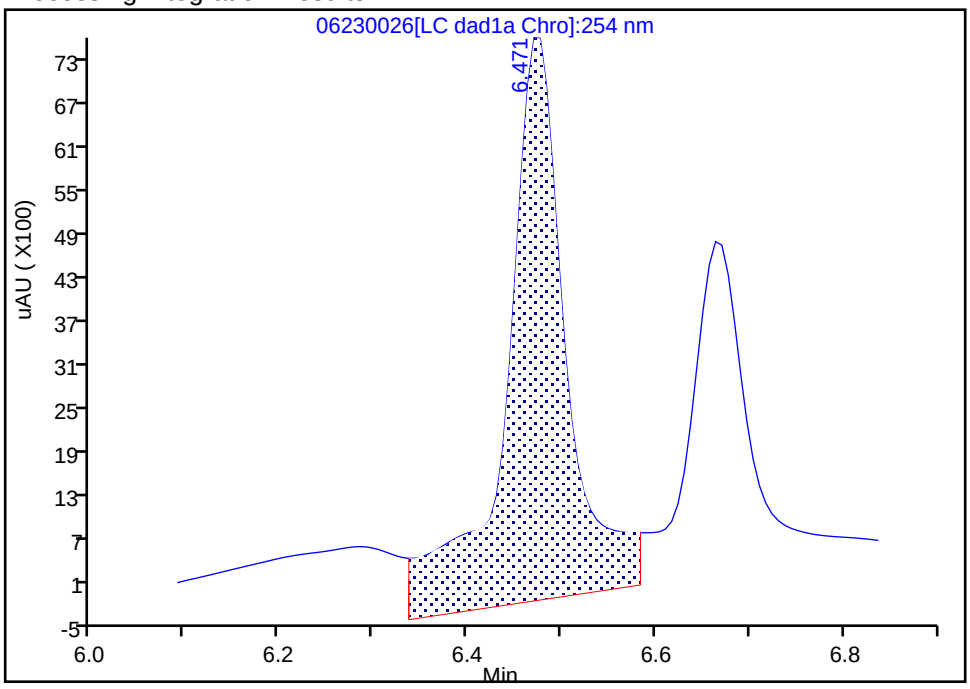
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d				
Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

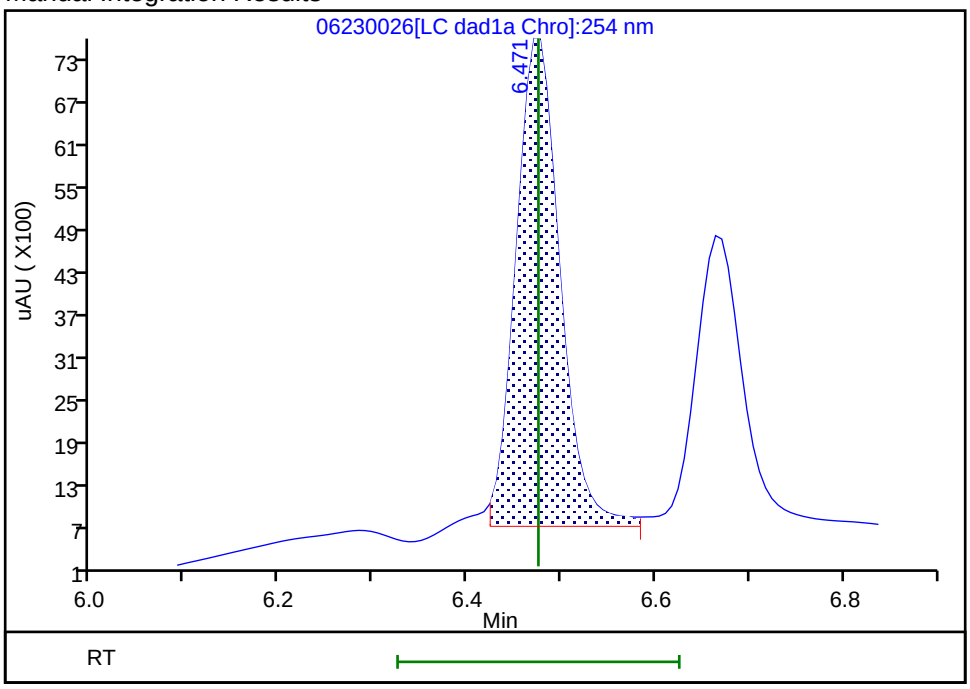
Processing Integration Results

RT: 6.47
Area: 34869
Amount: 0.105424
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 22652
Amount: 0.100423
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

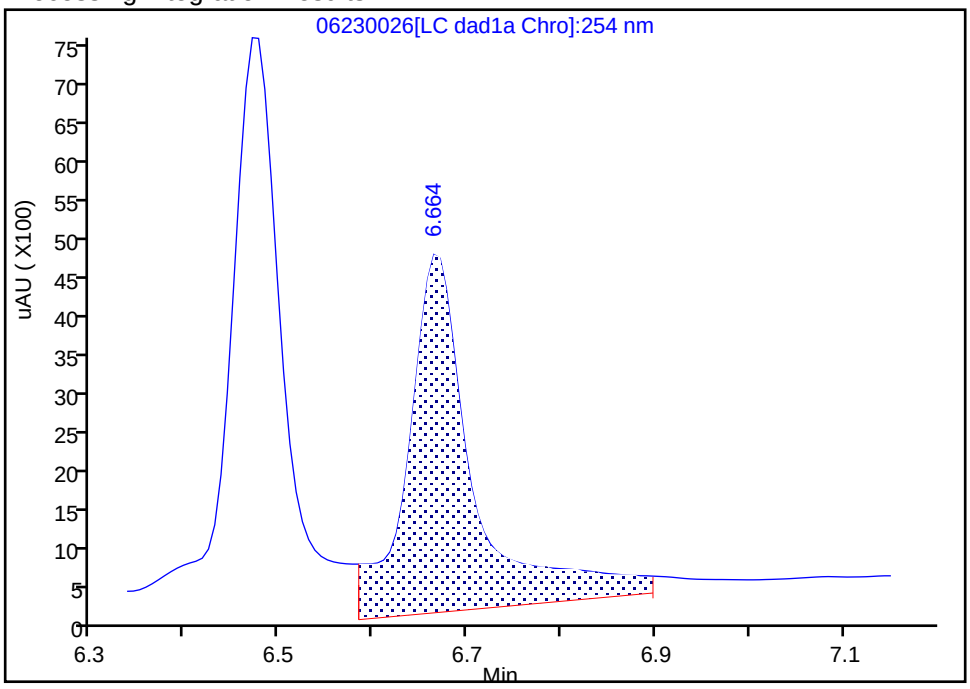
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d				
Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

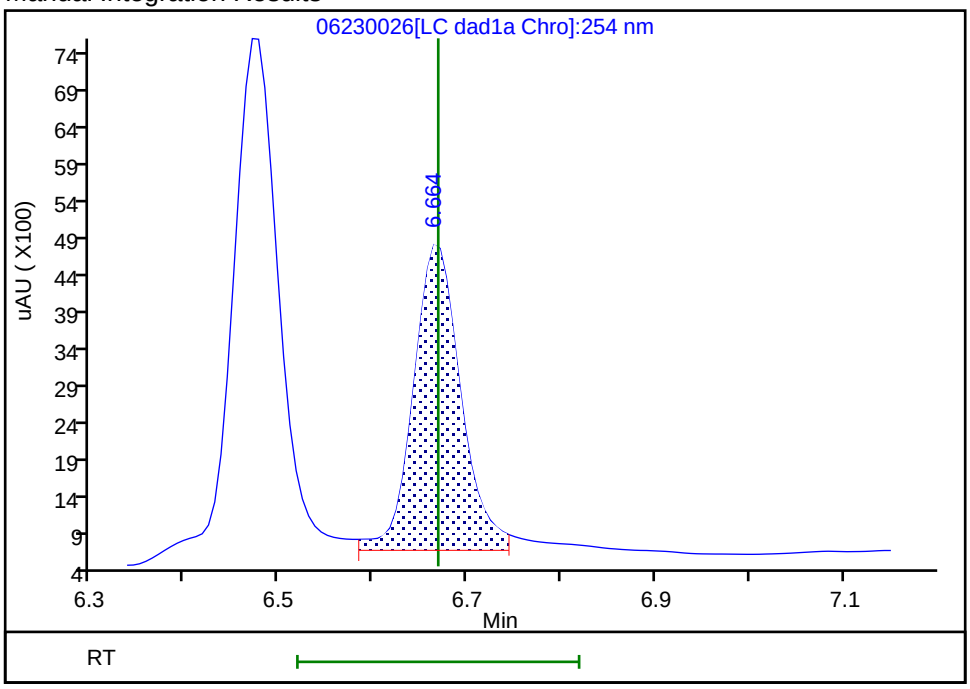
Processing Integration Results

RT: 6.66
Area: 22563
Amount: 0.092053
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 14442
Amount: 0.100763
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:43 -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\20230623-122860.b\06230027.D
Lims ID: IC ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jun-2023 00:00:54 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.478	6.475	0.003	10520	0.0400	0.0466	M
5 2,4-diamino-6-nitrotoluene	1	6.672	6.669	0.003	6600	0.0400	0.0460	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 2.00 Units: uL

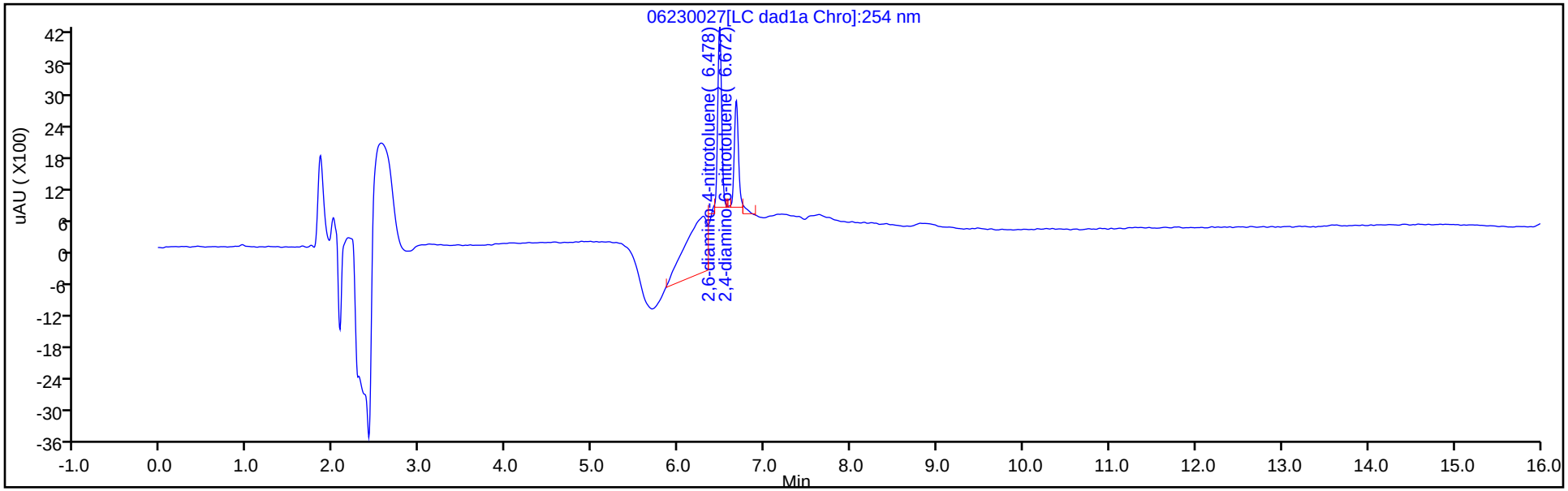
Report Date: 24-Jun-2023 12:55:55 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

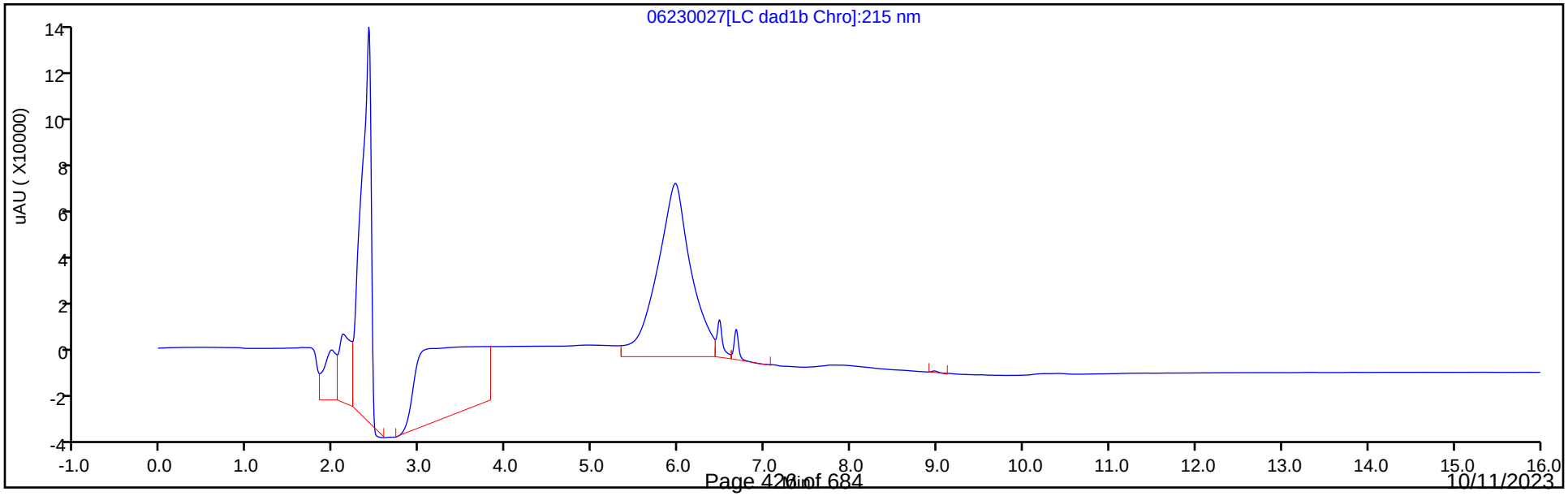
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d

Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

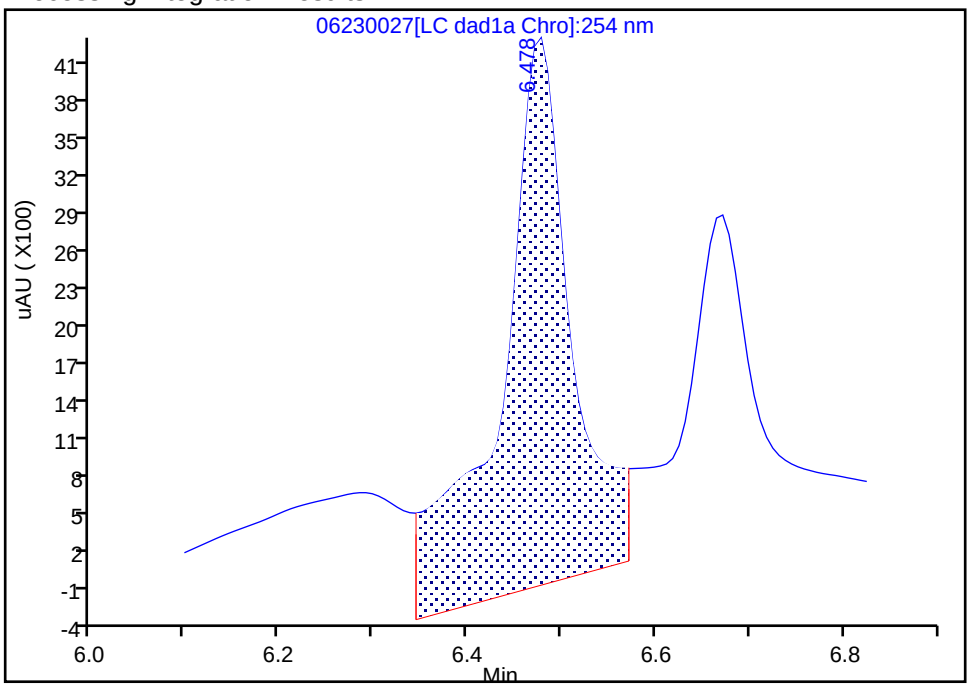
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d				
Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

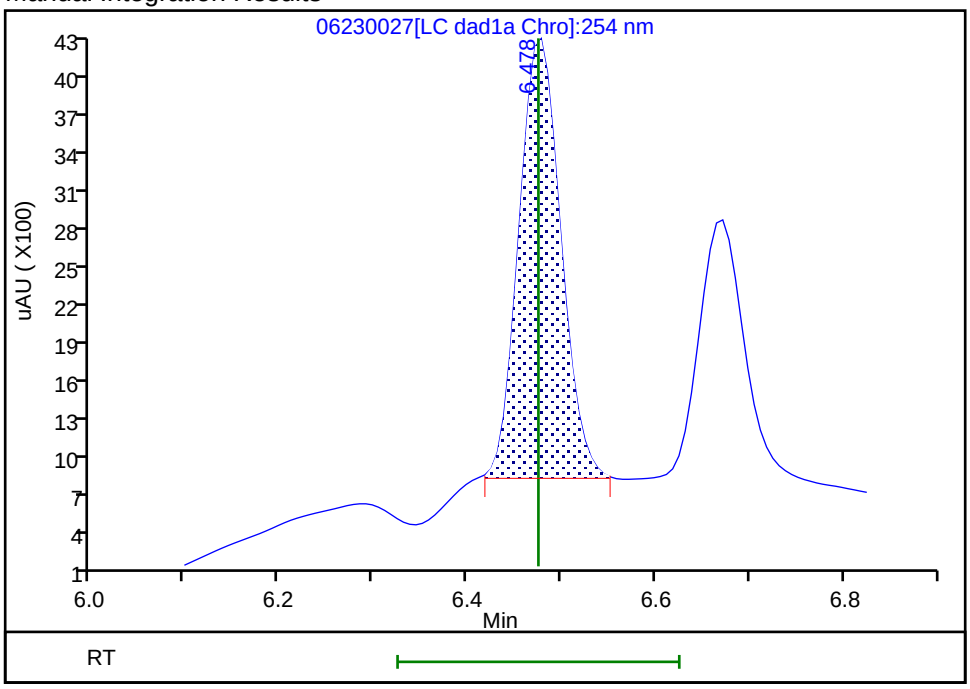
Processing Integration Results

RT: 6.48
Area: 22857
Amount: 0.065981
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 10520
Amount: 0.046638
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 12:55:06 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

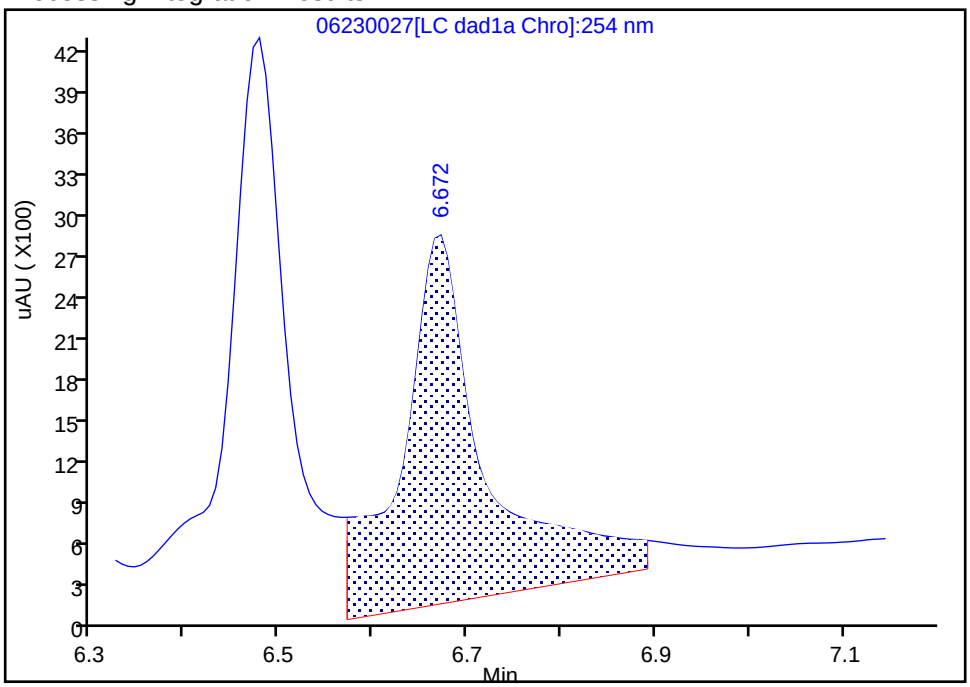
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d				
Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

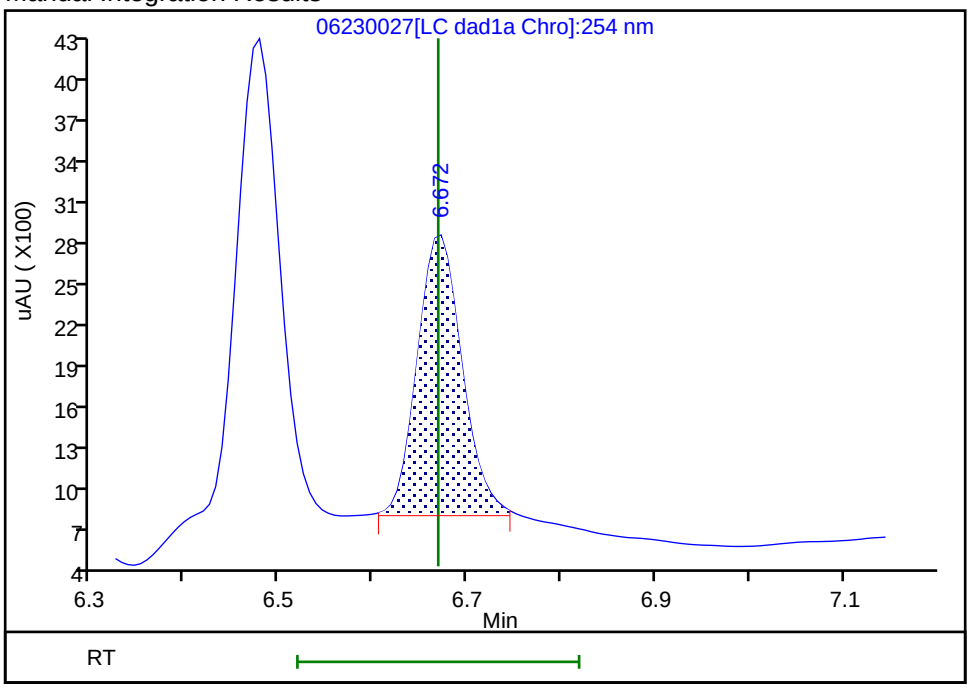
Processing Integration Results

RT: 6.67
Area: 16387
Amount: 0.066781
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 6600
Amount: 0.046049
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 12:55:07 -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\20230623-122860.b\06230028.D
Lims ID: IC ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jun-2023 00:23:49 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:43:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.470	6.475	-0.005	4412	0.0200	0.0196	M
5 2,4-diamino-6-nitrotoluene	1	6.663	6.669	-0.006	3131	0.0200	0.0218	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 1.00 Units: uL

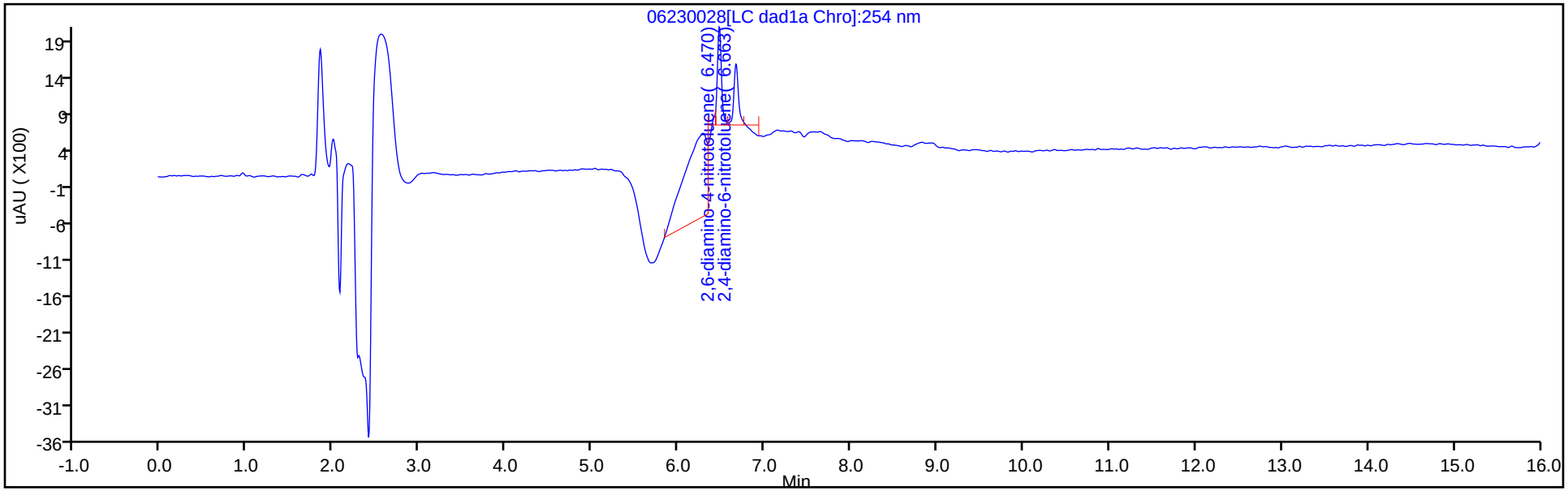
Report Date: 24-Jun-2023 12:55:55 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

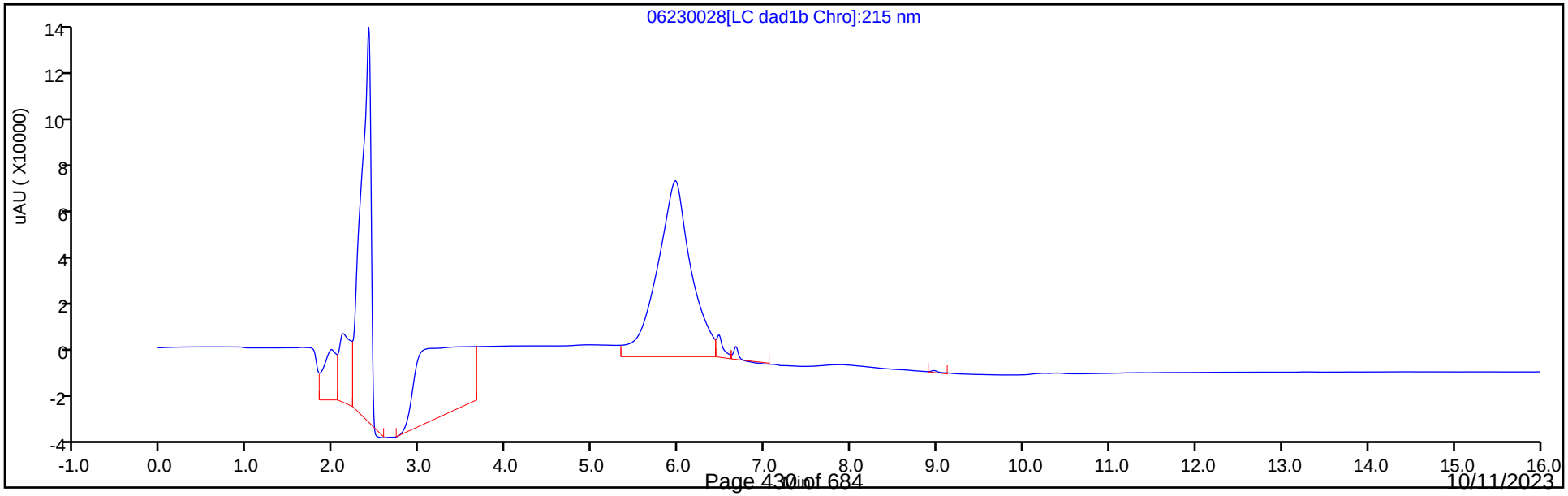
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d

Injection Date:	24-Jun-2023 00:23:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

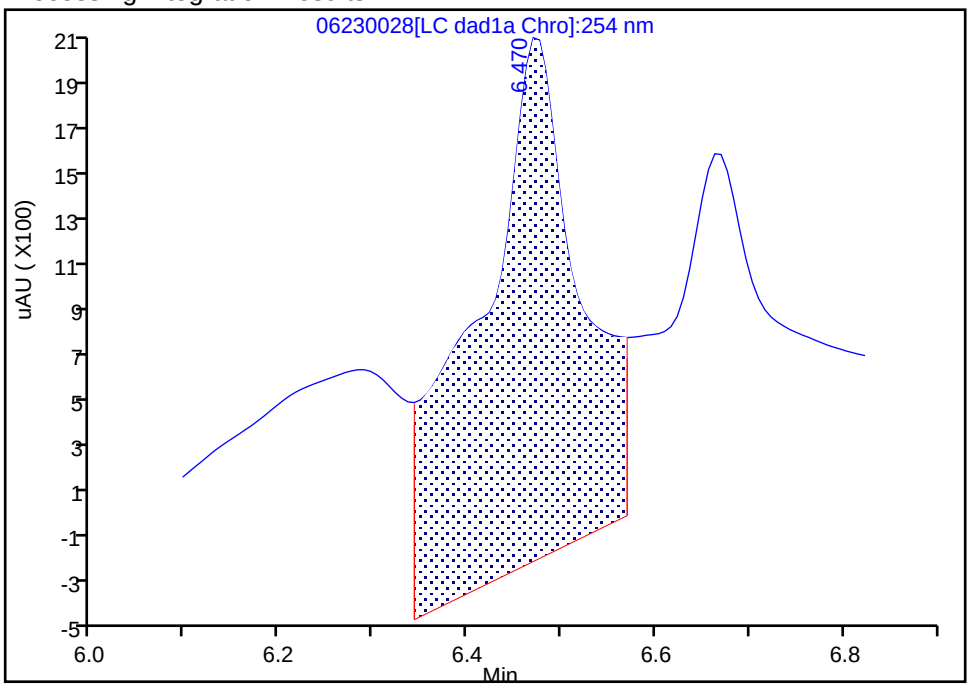
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d
Injection Date: 24-Jun-2023 00:23:49 Instrument ID: CHHPLC_X3
Lims ID: IC ADD 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

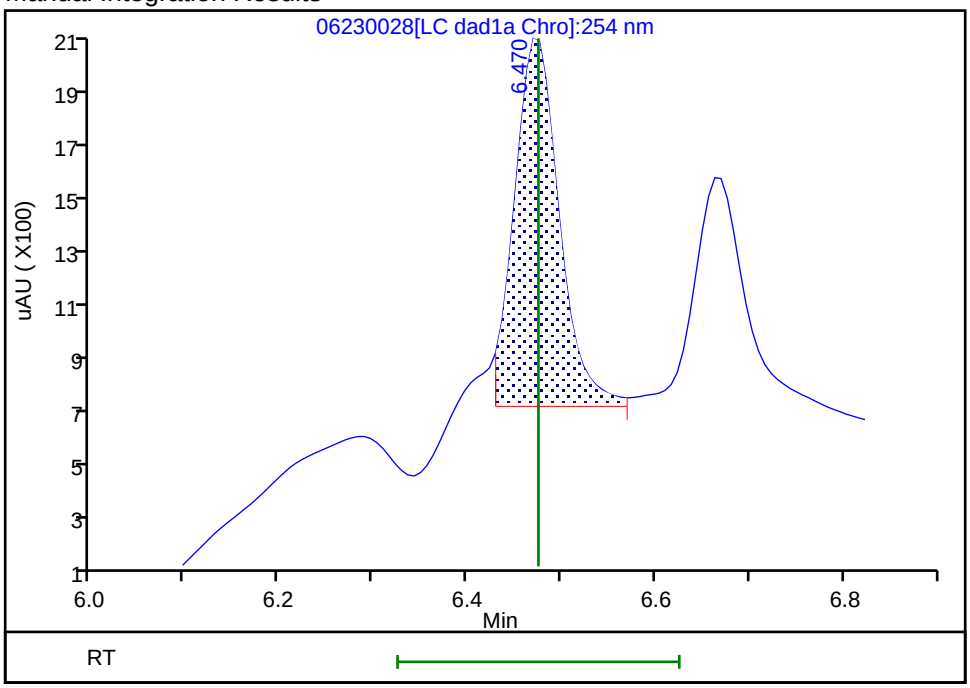
Processing Integration Results

RT: 6.47
Area: 17580
Amount: 0.056430
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 4412
Amount: 0.019560
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:00 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

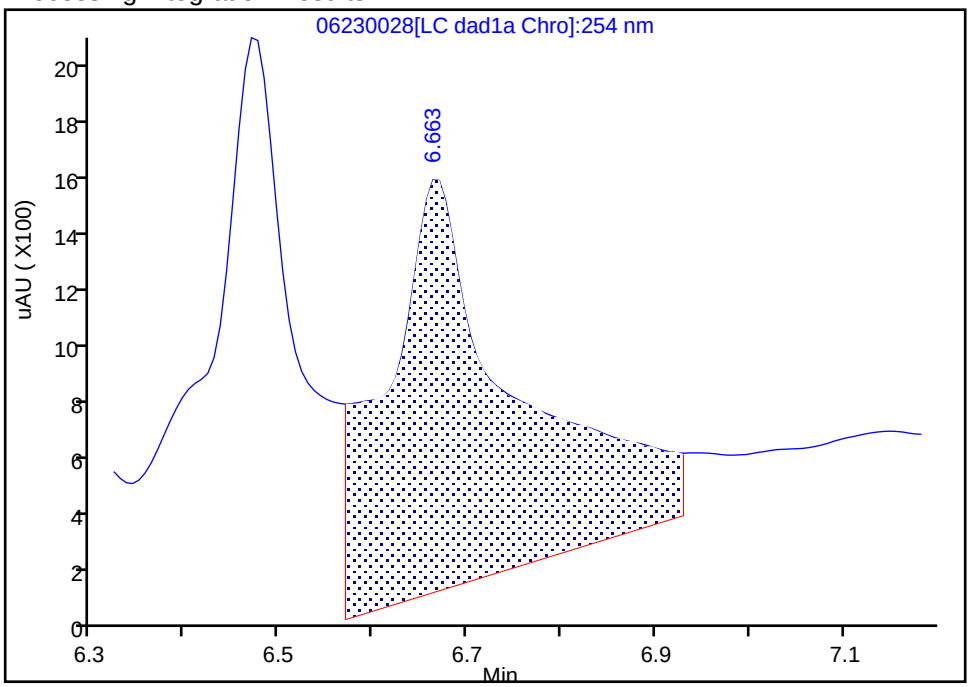
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d				
Injection Date:	24-Jun-2023 00:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

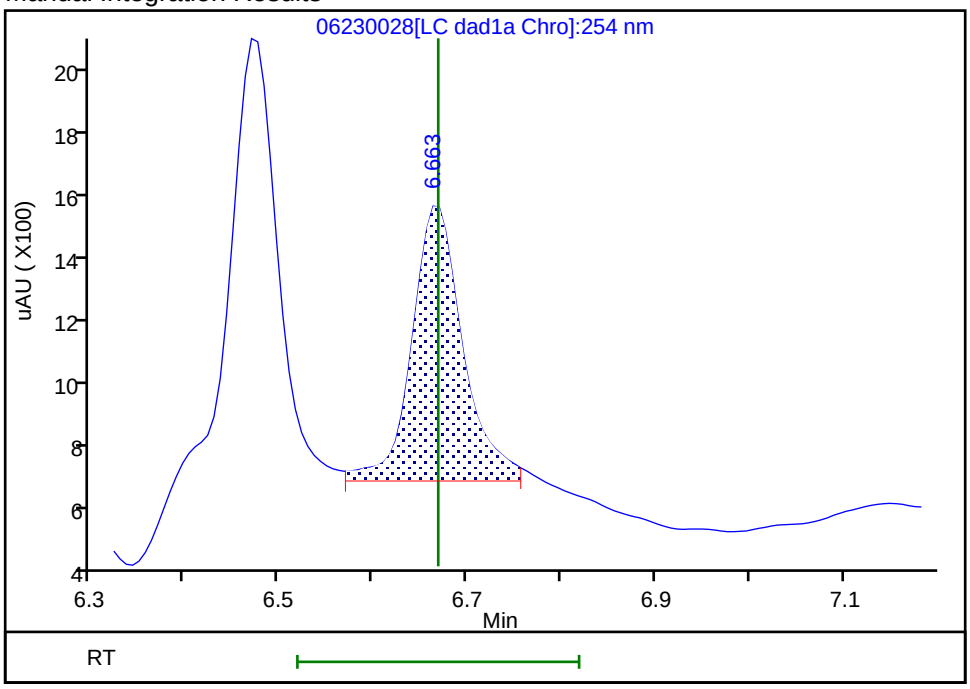
Processing Integration Results

RT: 6.66
Area: 14567
Amount: 0.066524
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 3131
Amount: 0.021845
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

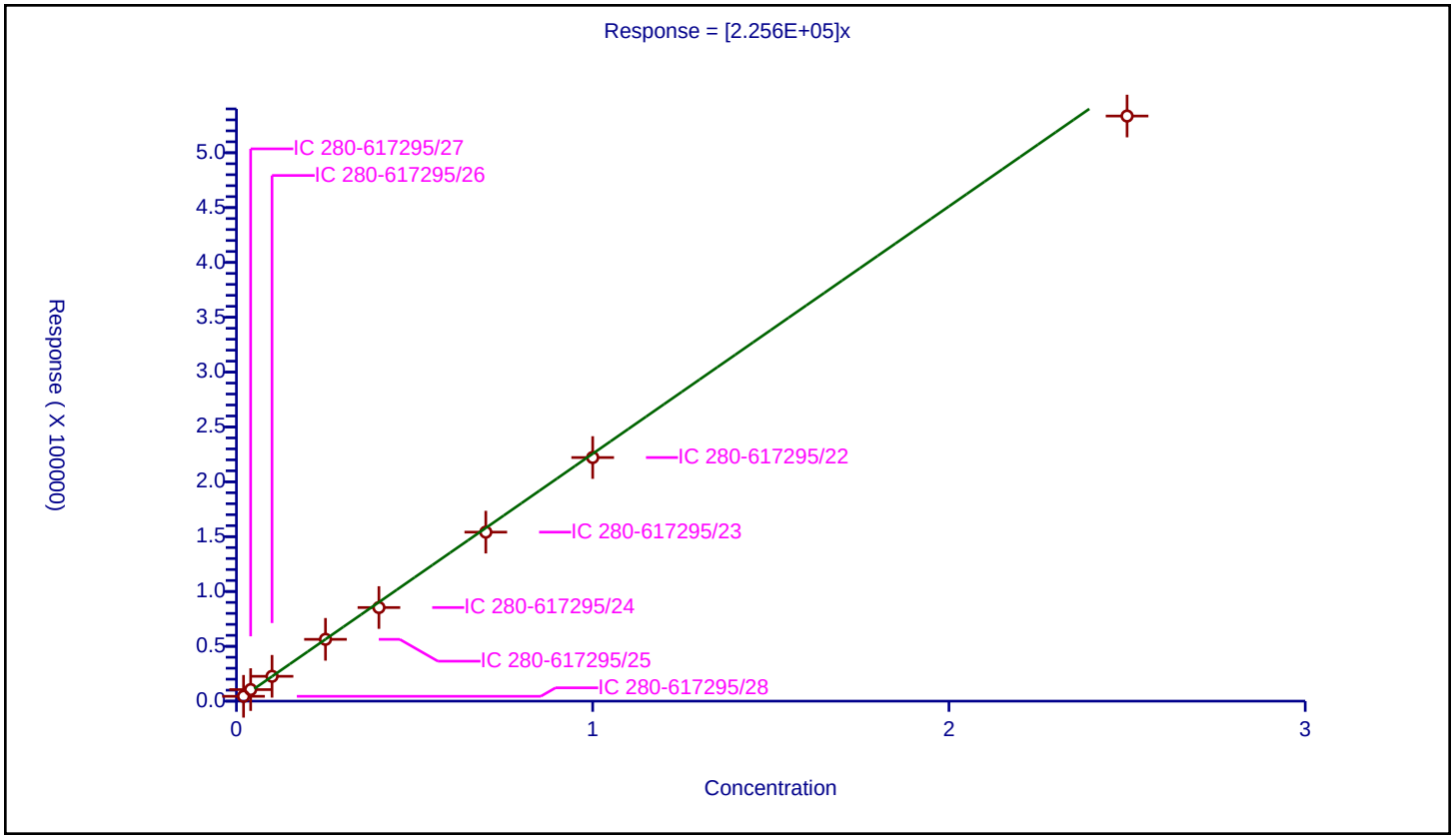
Curve Coefficients

Intercept:	0
Slope:	2.256E+05

Error Coefficients

Standard Error:	11800
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/28	0.02	4412.0			220600.0	Y
2	IC 280-617295/27	0.04	10520.0			263000.0	Y
3	IC 280-617295/26	0.1	22652.0			226520.0	Y
4	IC 280-617295/25	0.25	56351.0			225404.0	Y
5	IC 280-617295/24	0.4	85341.0			213352.5	Y
6	IC 280-617295/23	0.7	154088.0			220125.714286	Y
7	IC 280-617295/22	1.0	222122.0			222122.0	Y
8	IC 280-617295/21	2.5	533494.0			213397.6	Y



10/11/2023
10:32 AM

Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

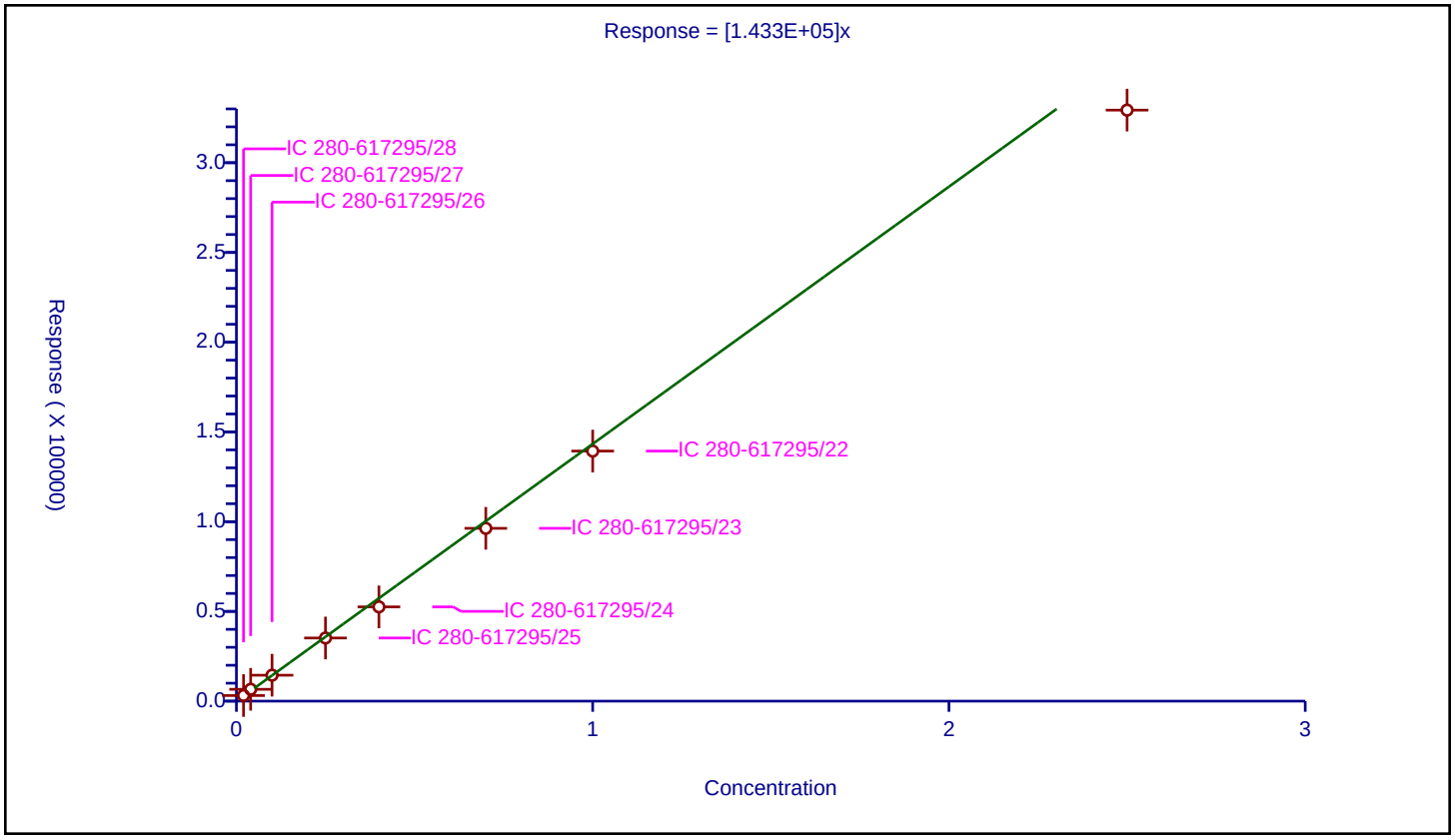
Curve Coefficients

Intercept:	0
Slope:	1.433E+05

Error Coefficients

Standard Error:	11300
Relative Standard Error:	8.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/28	0.02	3131.0			156550.0	Y
2	IC 280-617295/27	0.04	6600.0			165000.0	Y
3	IC 280-617295/26	0.1	14442.0			144420.0	Y
4	IC 280-617295/25	0.25	35180.0			140720.0	Y
5	IC 280-617295/24	0.4	52521.0			131302.5	Y
6	IC 280-617295/23	0.7	96286.0			137551.428571	Y
7	IC 280-617295/22	1.0	139337.0			139337.0	Y
8	IC 280-617295/21	2.5	329323.0			131729.2	Y



10/11/2023
10:32 AM

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-181950-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.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	5.337	5.332	5.337	5.332	5.324	5.315	5.310	5.293	5.230		5.174 - 5.474	5.312
DNX	6.224	6.225	6.224	6.225	6.211	6.201	6.190	6.179	6.116		6.061 - 6.361	6.199
HMX	6.890	6.899	6.897	6.899	6.877	6.875	6.863	6.859	6.803		6.727 - 7.027	6.874
MNX	7.777	7.779	7.777	7.772	7.751	7.748	7.736	7.726	7.656		7.601 - 7.901	7.747
Picric acid	8.644	8.645	8.630	8.599	8.551	8.528	8.483	8.439	+++++		8.401 - 8.701	8.565
RDX	9.217	9.212	9.210	9.205	9.184	9.188	9.170	9.159	9.096		9.034 - 9.334	9.182
Nitrobenzene	11.817	11.812	11.810	11.805	11.790	11.788	11.783	11.766	11.683		11.640 - 11.940	11.784
3,5-Dinitroaniline	14.650	14.665	14.670	14.665	14.644	14.634	14.623	14.619	14.649		14.494 - 14.794	14.647
1,3-Dinitrobenzene	14.923	14.925	14.930	14.925	14.904	14.901	14.889	14.886	14.796		14.754 - 15.054	14.898
Nitroglycerin	15.497	15.505	15.503	15.505	15.484	15.481	15.469	15.473	15.409		15.334 - 15.634	15.481
2-Nitrotoluene	16.097	16.085	16.097	16.092	16.070	16.061	16.056	16.053	16.009		15.920 - 16.220	16.069
4-Nitrotoluene	16.323	16.325	16.323	16.325	16.297	16.294	16.289	16.279	16.089		16.147 - 16.447	16.283
4-Amino-2,6-dinitrotoluene	16.857	16.852	16.857	16.852	16.830	16.814	16.816	16.806	16.736		16.680 - 16.980	16.824
3-Nitrotoluene	17.177	17.179	17.190	17.185	17.164	17.148	17.149	17.139	17.069		17.014 - 17.314	17.156
2-Amino-4,6-dinitrotoluene	17.730	17.712	17.717	17.712	17.690	17.674	17.669	17.666	17.636		17.540 - 17.840	17.690
1,3,5-Trinitrobenzene	17.737	17.732	17.730	17.738	17.704	17.701	17.703	17.679	17.643		17.554 - 17.854	17.707
2,6-Dinitrotoluene	19.023	19.019	19.023	19.012	18.990	18.974	18.976	18.966	18.903		18.840 - 19.140	18.987
2,4-Dinitrotoluene	19.463	19.465	19.477	19.458	19.444	19.428	19.423	19.419	19.356		19.294 - 19.594	19.437
Tetryl	22.884	22.879	22.890	22.859	22.837	22.828	22.830	22.819	22.770		22.687 - 22.987	22.844
2,4,6-Trinitrotoluene	23.684	23.685	23.697	23.672	23.657	23.641	23.650	23.633	23.590		23.507 - 23.807	23.657
PETN	25.010	24.992	24.997	24.972	24.957	24.955	24.956	24.939	24.916		24.807 - 25.107	24.966
1,2-Dinitrobenzene	12.797	12.812	12.803	12.805	12.784	12.781	12.776	12.766	12.689		12.634 - 12.934	12.779

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.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	426122 385910 388275	407079 379070	390608 387153	386969 384720	Ave		392878.452				3.7		20.0			
DNX	318182 286689 285630	278571 280957	285934 285305	290460 284330	Ave		288450.783				4.0		20.0			
HMX	235400 177584 172745	201050 179383	202440 176034	190280 175985	Ave		190100.065				10.7		20.0			
MNX	274636 262554 269767	269237 257031	268243 260122	265210 258751	Ave		265061.302				2.2		20.0			
Picric acid	119800 145460 +++++	157350 147085	157140 145669	152330 145890	Lin2	-213.78437	151389.193							0.9950		0.9900
RDX	278400 204308 200182	239350 206243	233380 203574	215160 203760	Ave		220484.087				11.7		20.0			
Nitrobenzene	437400 364488 371998	393250 382385	380460 372626	380210 373244	Ave		384006.746				5.6		20.0			
3,5-Dinitroaniline	415500 412436 390037	423450 419573	420600 417741	419900 418073	Lin2	64.4823579	413900.153							0.9990		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.: 280-181950-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

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								
1,3-Dinitrobenzene	595800 576616 602271	575850 579778	588620 581440	585790 582877	Ave		585449.078				1.5		20.0			
Nitroglycerin	130160 125216 124281	126080 125674	140174 126313	132632 125626	Ave		128461.817				4.0		20.0			
2-Nitrotoluene	244200 231140 223425	249800 234030	244680 235174	240280 235634	Ave		237595.943				3.4		20.0			
4-Nitrotoluene	180200 209496 225581	217450 215010	227960 215733	218050 214152	Ave		213736.851				6.5		20.0			
4-Amino-2,6-dinitrotoluene	284400 265300 269003	277200 267965	271420 269809	273710 269511	Ave		272035.308				2.1		20.0			
3-Nitrotoluene	275800 264028 269186	263400 269978	274740 271586	274840 271734	Ave		270587.868				1.7		20.0			
2-Amino-4,6-dinitrotoluene	389900 369576 419998	376850 405623	369100 413330	415480 366541	Ave		391821.900				5.6		20.0			
1,3,5-Trinitrobenzene	411800 410060 371075	401300 383195	424300 378994	380990 427317	Ave		398781.276				5.2		20.0			
2,6-Dinitrotoluene	309100 264264 263539	287950 267358	270000 266386	272510 267331	Ave		274270.779				5.5		20.0			
2,4-Dinitrotoluene	560200 533832 541816	560250 543593	530260 542664	541730 544526	Ave		544318.932				1.9		20.0			
Tetryl	319900 301696 302711	311900 306023	313200 304153	306400 305669	Ave		307961.284				1.9		20.0			
2,4,6-Trinitrotoluene	381400 393500 394885	394000 397820	396420 396150	401930 398106	Ave		394912.356				1.4		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.: 280-181950-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

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	108320 131057 134771	117620 132432	128544 132587	131058 132703	Lin2	-2595.585 0	133137.09 2							1.0000		0.9900
1,2-Dinitrobenzene	310000 251840 252936	304350 256813	257380 254446	257650 255258	Ave		266741.40 2				8.6		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.: 280-181950-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.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	4274 152083	8166 271820	19589 385874	38813 973600	96767	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	3185 112495	5577 199913	14311 284614	29075 714789	71744	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Ave	2354 71753	4021 123224	10122 175985	19028 431862	44396	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3205 119982	6284 212494	15652 301963	30950 787045	76600	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Lin2	1198 58834	3147 101968	7857 145890	15233 +++++	36365	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 +++++	0.250
RDX	Ave	2784 82497	4787 142502	11669 203760	21516 500455	51077	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4374 152954	7865 260838	19023 373244	38021 929995	91122	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4155 167829	8469 292419	21030 418073	41990 975092	103109	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	5958 231911	11517 407008	29431 582877	58579 1505678	144154	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	13016 502697	25216 884192	70087 1256262	132632 3107019	313040	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2442 93612	4996 164622	12234 235634	24028 558563	57785	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1802 86004	4349 151013	11398 214152	21805 563952	52374	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	2844 107186	5544 188866	13571 269511	27371 672508	66325	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	2758 107991	5268 190110	13737 271734	27484 672964	66007	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	3899	7537	18455	41548	92394	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.: 280-181950-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

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
		162249	289331	366541	1049994		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	4118 153278	8026 265296	21215 427317	38099 927688	102515	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3091 106943	5759 186470	13500 267331	27251 658847	66066	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5602 217437	11205 379865	26513 544526	54173 1354539	133458	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	3199 122409	6238 212907	15660 305669	30640 756778	75424	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3814 159128	7880 277305	19821 398106	40193 987213	98375	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	10832 529728	23524 928111	64272 1327029	131058 3369275	327642	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3100 102725	6087 178112	12869 255258	25765 632341	62960	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Sep-2023 20:01:08 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:12 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:52:50

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.230	5.324	-0.094	973600	2.51	2.48	
4 DNX	1	6.116	6.211	-0.095	714789	2.50	2.48	
5 HMX	1	6.803	6.877	-0.074	431862	2.50	2.27	
6 MNX	1	7.656	7.751	-0.095	787045	2.92	2.97	
7 2,4,6-Trinitrophenol	1	8.356	8.551	-0.195	324534	2.50	2.15	a
8 RDX	1	9.096	9.184	-0.088	500455	2.50	2.27	
9 Nitrobenzene	1	11.683	11.790	-0.107	929995	2.50	2.42	
$ 10 1,2-Dinitrobenzene	1	12.689	12.784	-0.095	632341	2.50	2.37	
11 3,5-Dinitroaniline	1	14.649	14.644	0.005	975092	2.50	2.36	Ma
12 1,3-Dinitrobenzene	1	14.796	14.904	-0.108	1505678	2.50	2.57	M
13 Nitroglycerin	2	15.409	15.484	-0.075	3107019	25.0	24.2	
14 o-Nitrotoluene	1	16.009	16.070	-0.061	558563	2.50	2.35	M
16 p-Nitrotoluene	1	16.089	16.297	-0.208	563952	2.50	2.64	Ma
17 4-Amino-2,6-dinitrotoluene	1	16.736	16.830	-0.094	672508	2.50	2.47	
18 m-Nitrotoluene	1	17.069	17.164	-0.095	672964	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	17.636	17.690	-0.054	1049994	2.50	2.68	M
20 1,3,5-Trinitrobenzene	1	17.643	17.704	-0.061	927688	2.50	2.33	Ma
21 2,6-Dinitrotoluene	1	18.903	18.990	-0.087	658847	2.50	2.40	
22 2,4-Dinitrotoluene	1	19.356	19.444	-0.088	1354539	2.50	2.49	
23 Tetryl	1	22.770	22.837	-0.067	756778	2.50	2.46	
24 2,4,6-Trinitrotoluene	1	23.590	23.657	-0.067	987213	2.50	2.50	
25 PETN	2	24.916	24.957	-0.041	3369275	25.0	25.3	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added: 250.00	Units: uL
8330 DMT_00015	Amount Added: 125.00	Units: uL

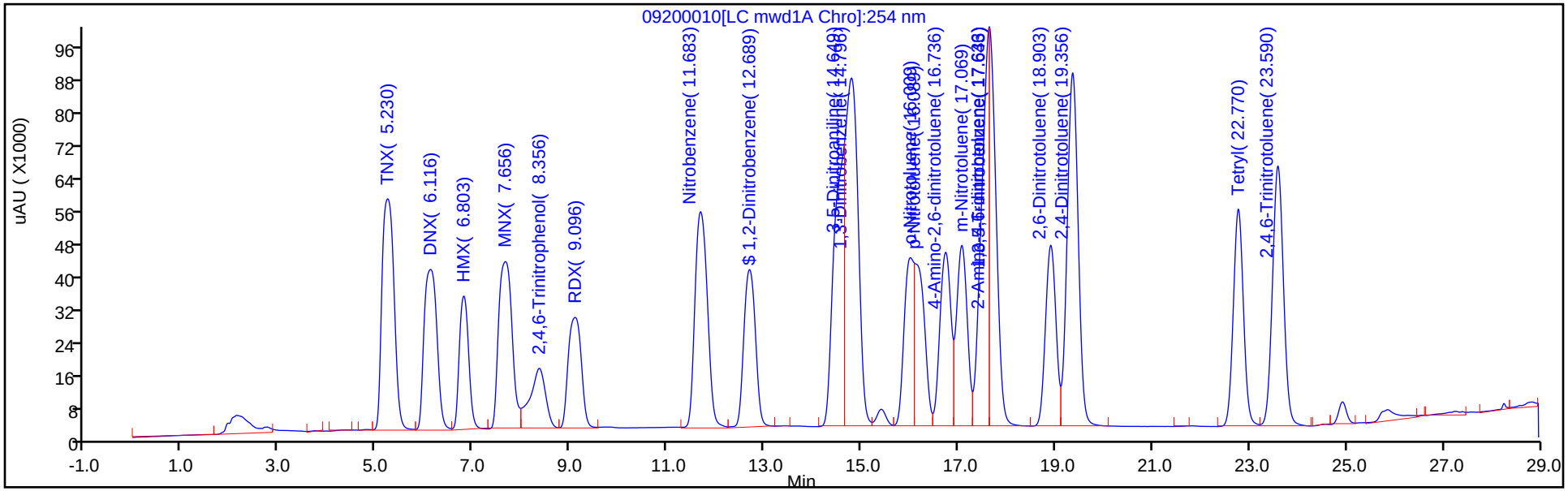
Report Date: 21-Sep-2023 16:09:12 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

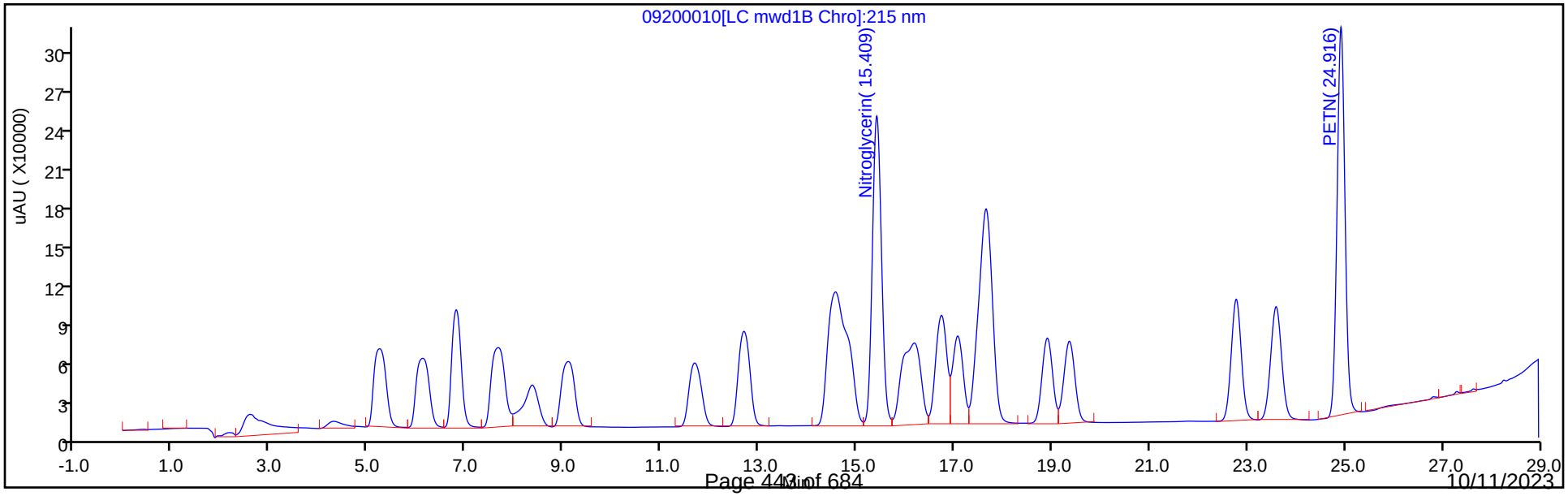
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Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

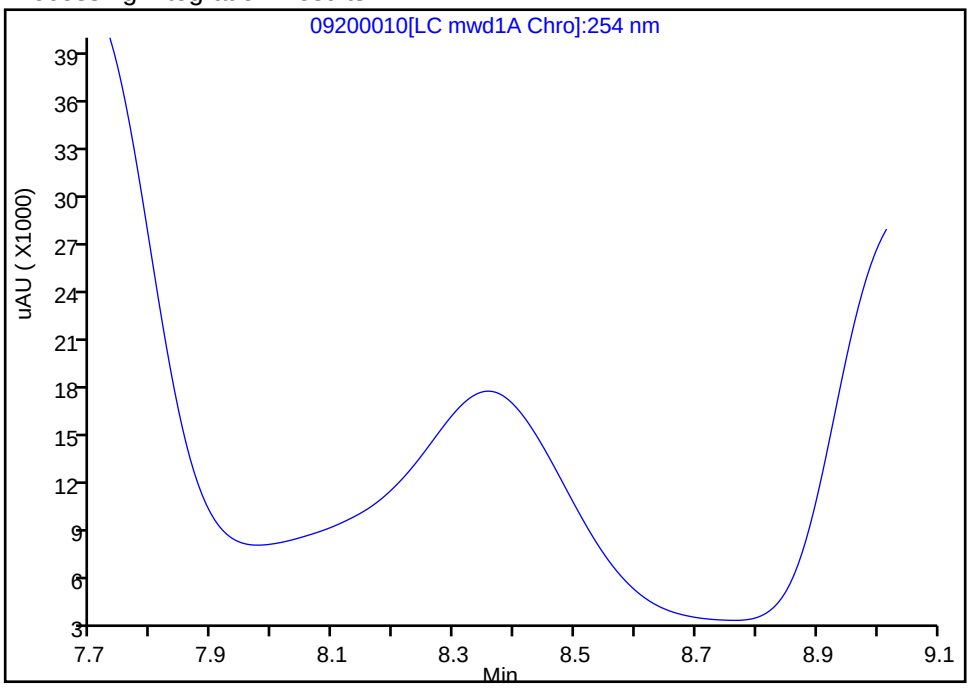
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Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

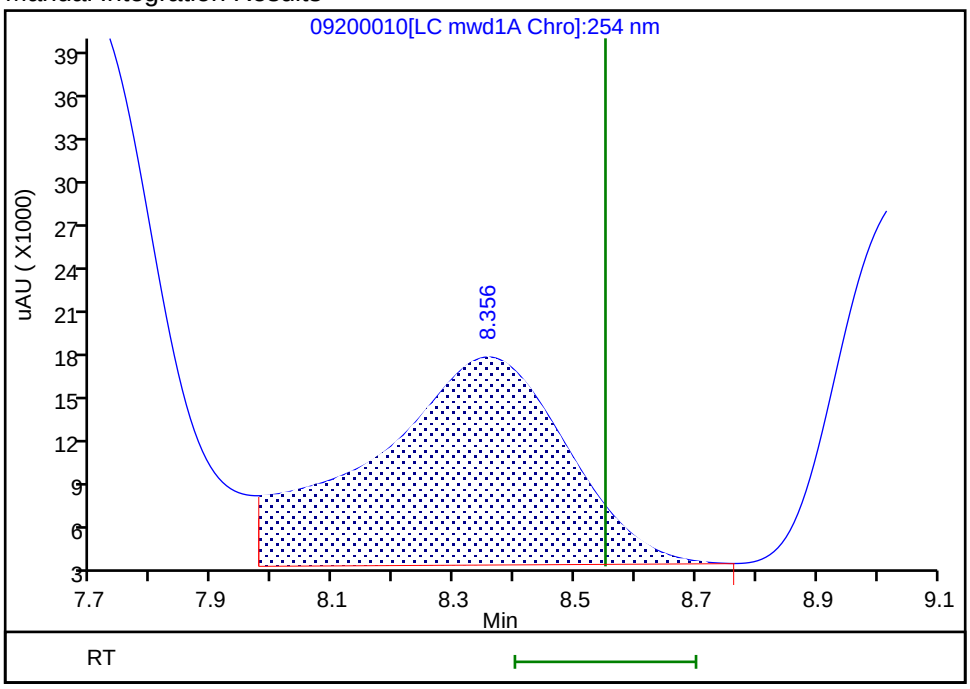
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.36
Area: 324534
Amount: 2.145119
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:20 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

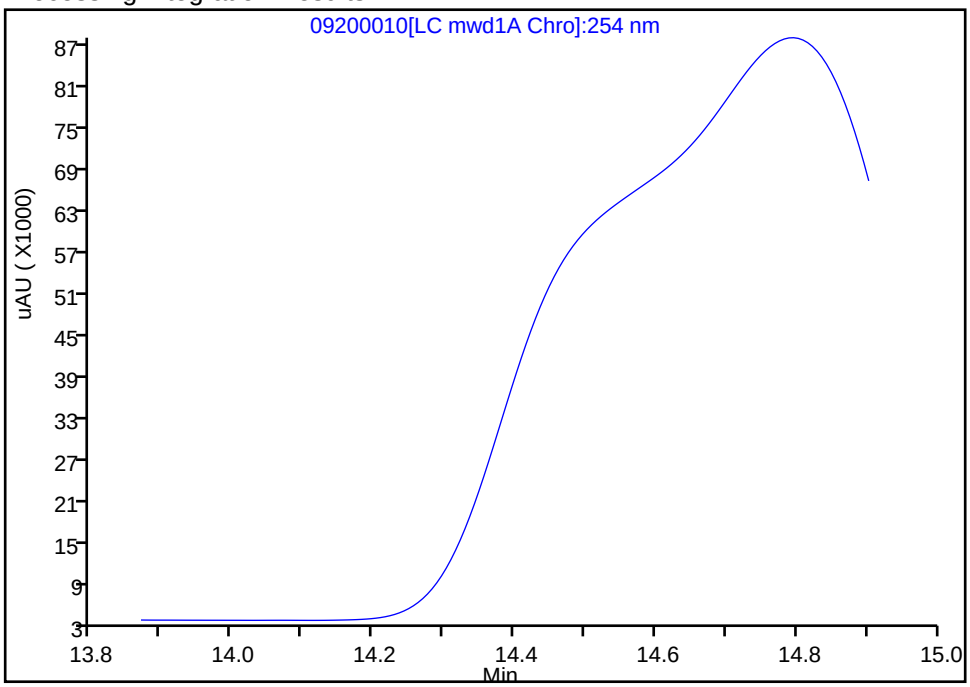
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Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

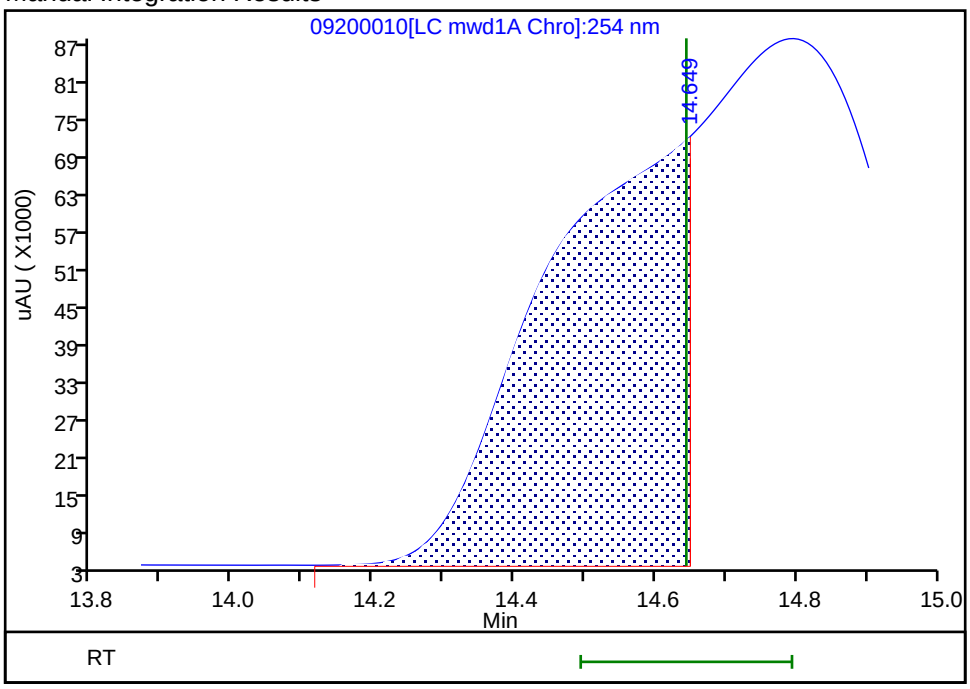
Not Detected
Expected RT: 14.64

Processing Integration Results



Manual Integration Results

RT: 14.65
Area: 975092
Amount: 2.355707
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:30 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

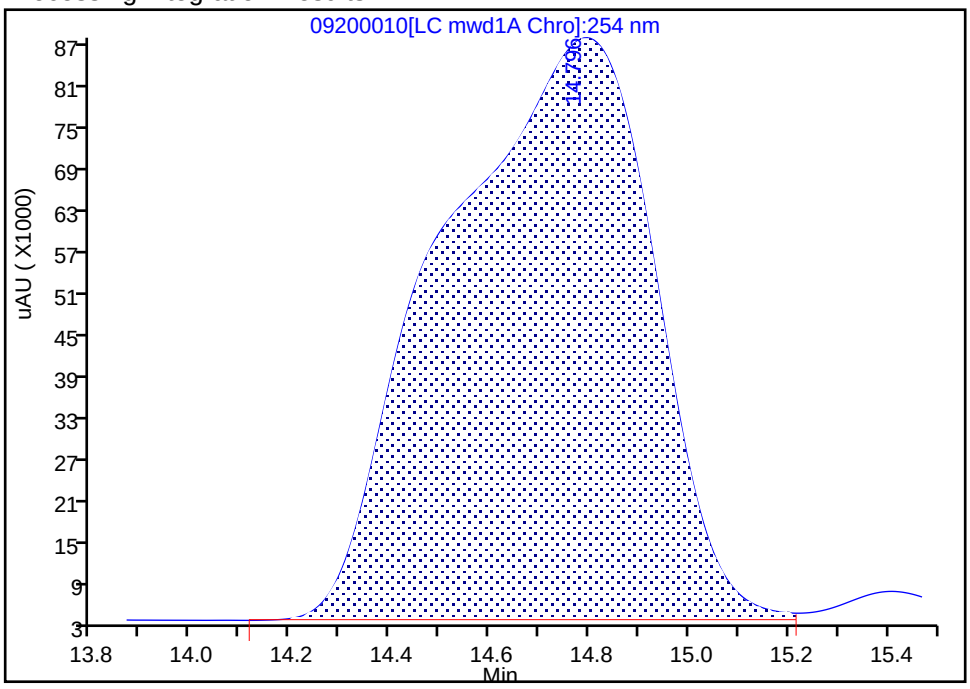
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Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

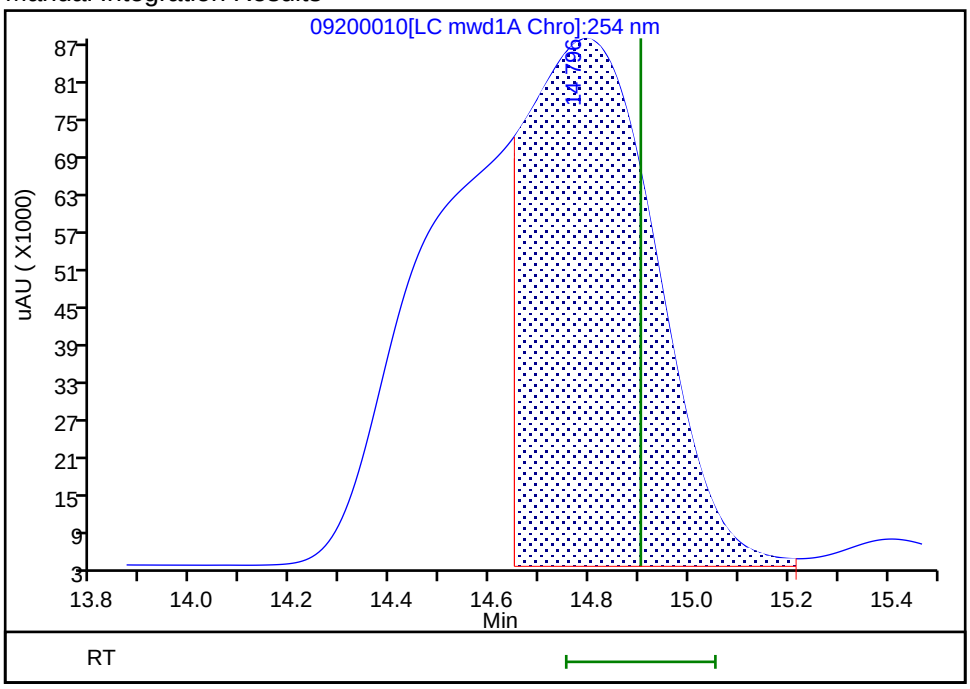
Processing Integration Results

RT: 14.80
Area: 2480748
Amount: 3.945301
Amount Units: ug/ml



Manual Integration Results

RT: 14.80
Area: 1505678
Amount: 2.571834
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:27 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

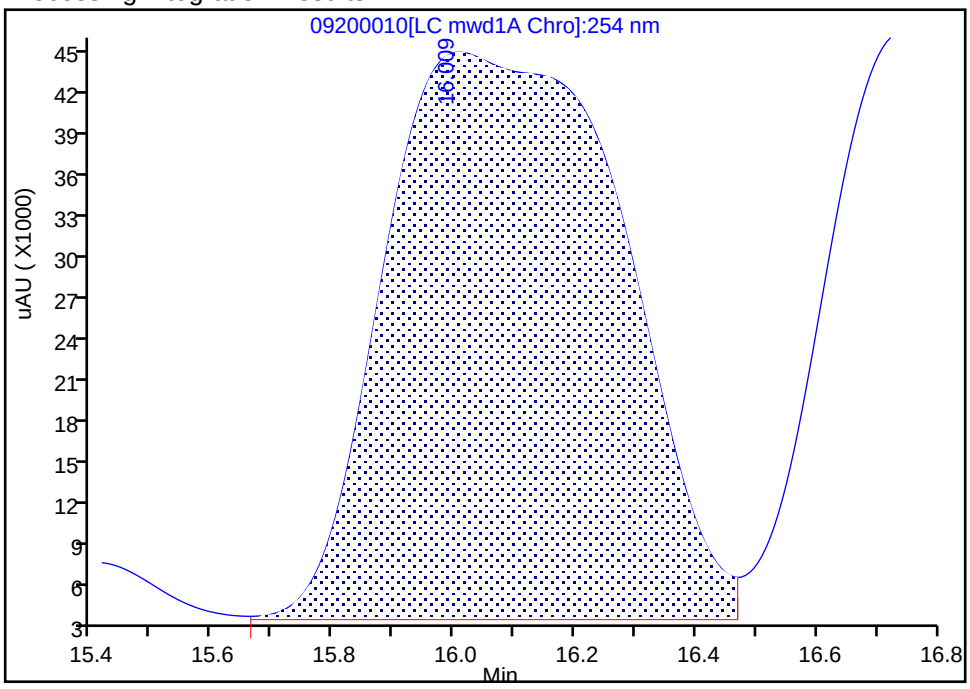
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Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

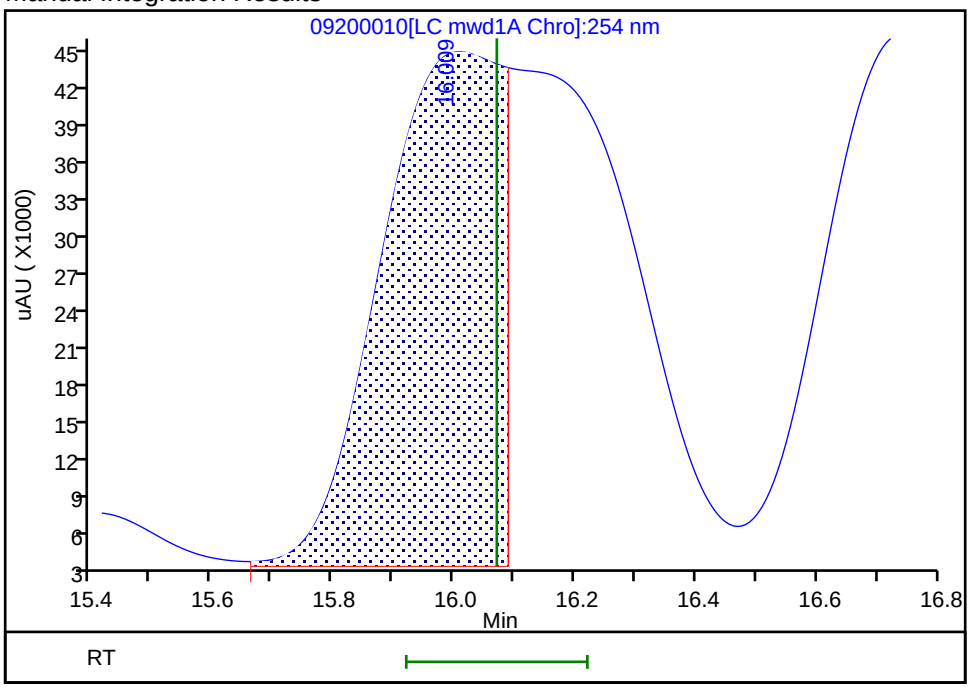
Processing Integration Results

RT: 16.01
Area: 1122493
Amount: 3.972434
Amount Units: ug/ml



Manual Integration Results

RT: 16.01
Area: 558563
Amount: 2.350895
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:37 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

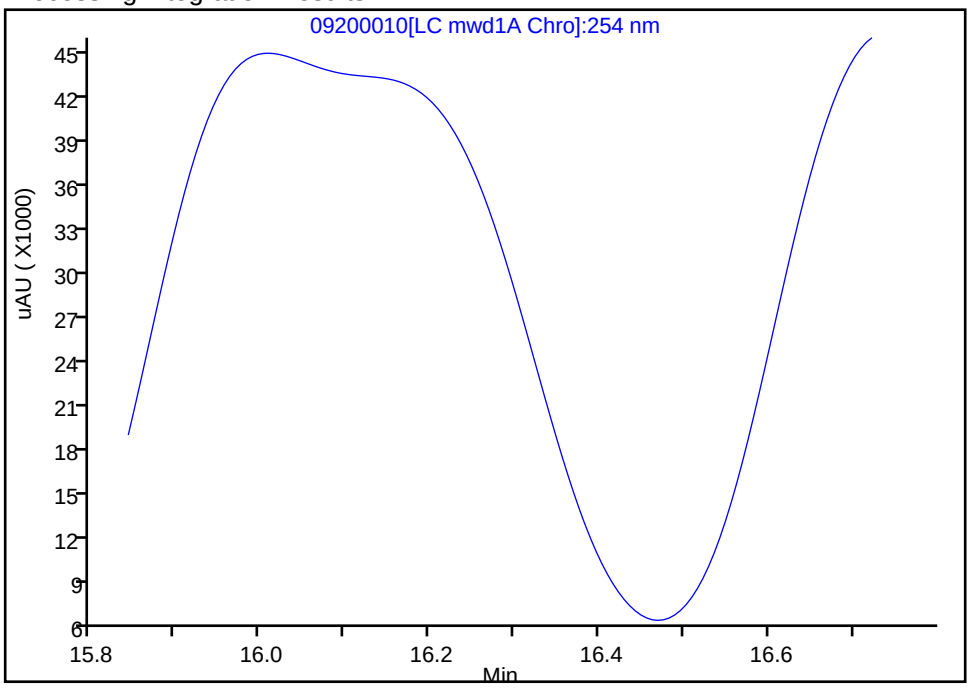
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Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

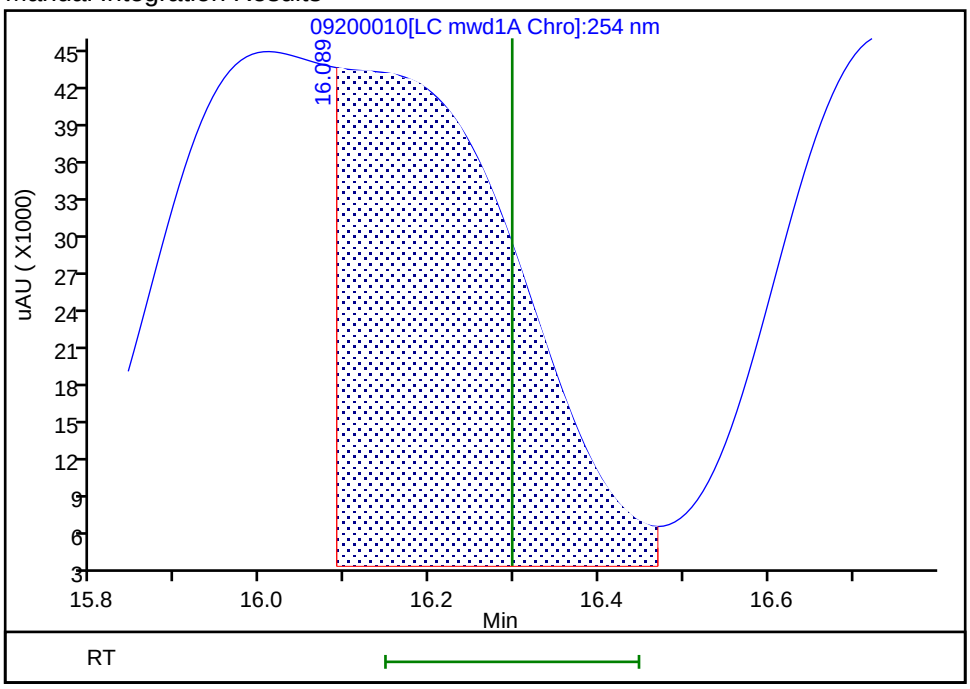
Not Detected
Expected RT: 16.30

Processing Integration Results



Manual Integration Results

RT: 16.09
Area: 563952
Amount: 2.638534
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:39 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

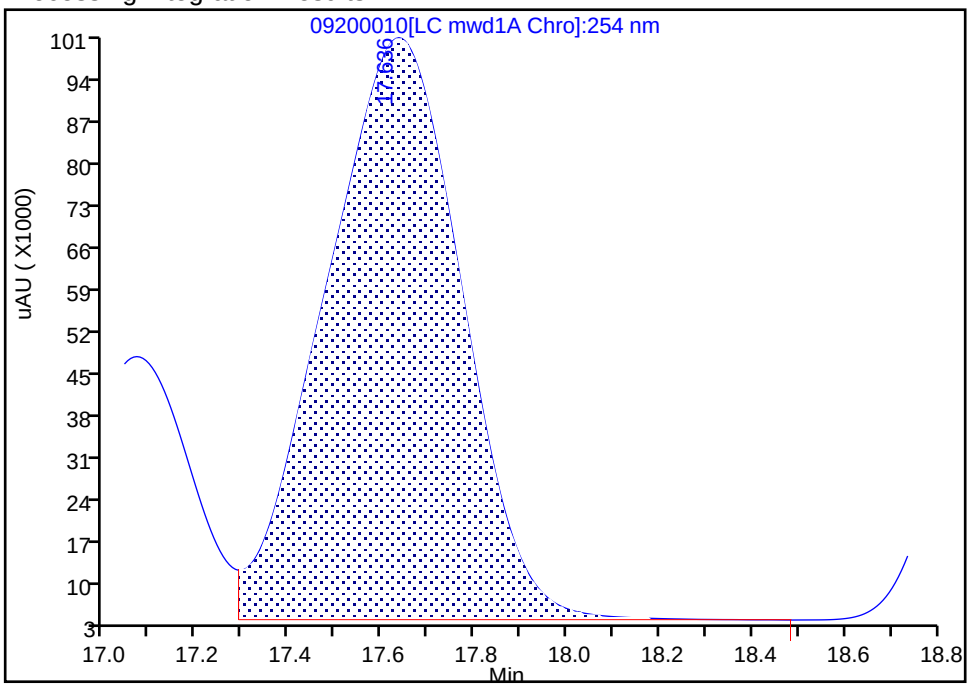
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Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

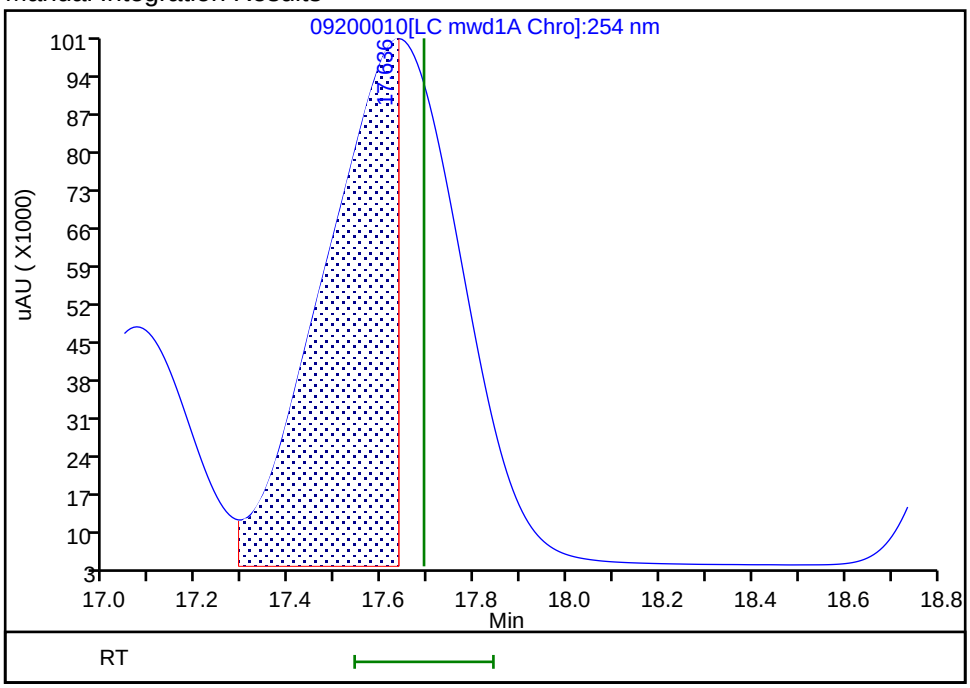
Processing Integration Results

RT: 17.64
Area: 1977654
Amount: 2.500000
Amount Units: ug/ml



Manual Integration Results

RT: 17.64
Area: 1049994
Amount: 2.679774
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:44 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

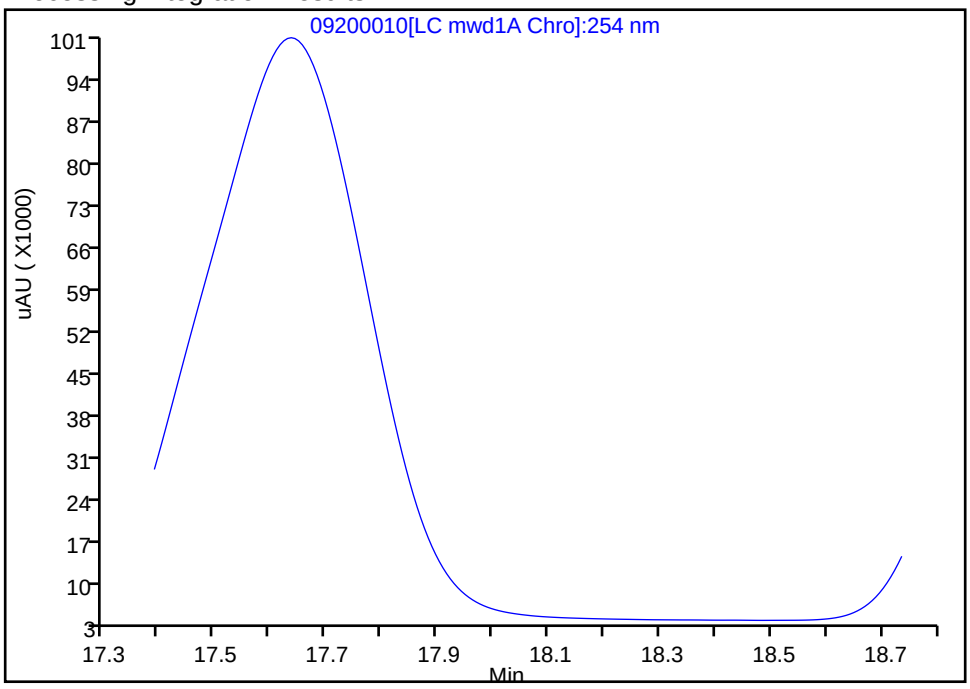
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

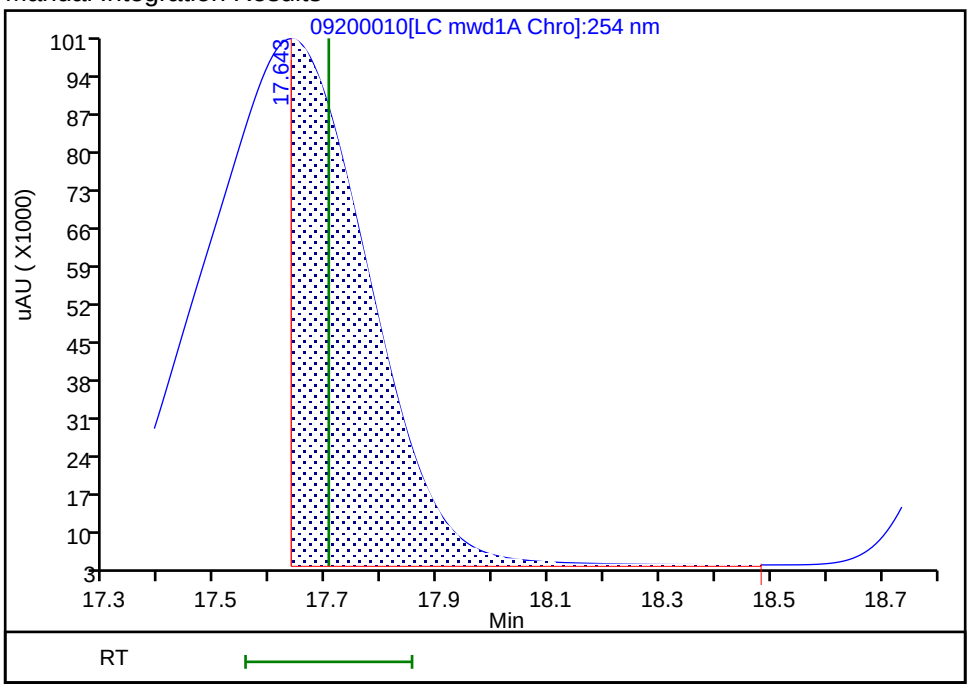
Not Detected
Expected RT: 17.70

Processing Integration Results



Manual Integration Results

RT: 17.64
Area: 927688
Amount: 2.326308
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:46 -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\CHHPLC_X5\20230920-125649.b\09200011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Sep-2023 20:36:05 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:13 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.293	5.324	-0.031	385874	1.00	0.9822	
4 DNX	1	6.179	6.211	-0.032	284614	1.00	0.9867	
5 HMX	1	6.859	6.877	-0.018	175985	1.00	0.9257	
6 MNX	1	7.726	7.751	-0.025	301963	1.17	1.14	
7 2,4,6-Trinitrophenol	1	8.439	8.551	-0.112	145890	1.00	0.9651	a
8 RDX	1	9.159	9.184	-0.025	203760	1.00	0.9241	
9 Nitrobenzene	1	11.766	11.790	-0.024	373244	1.00	0.9720	
$ 10 1,2-Dinitrobenzene	1	12.766	12.784	-0.018	255258	1.00	0.9569	
11 3,5-Dinitroaniline	1	14.619	14.644	-0.025	418073	1.00	1.01	
12 1,3-Dinitrobenzene	1	14.886	14.904	-0.018	582877	1.00	1.00	
13 Nitroglycerin	2	15.473	15.484	-0.011	1256262	10.0	9.78	
14 o-Nitrotoluene	1	16.053	16.070	-0.017	235634	1.00	0.99	
16 p-Nitrotoluene	1	16.279	16.297	-0.018	214152	1.00	1.00	
17 4-Amino-2,6-dinitrotoluene	1	16.806	16.830	-0.024	269511	1.00	0.99	
18 m-Nitrotoluene	1	17.139	17.164	-0.025	271734	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	17.666	17.690	-0.024	366541	1.00	0.9355	Ma
20 1,3,5-Trinitrobenzene	1	17.679	17.704	-0.025	427317	1.00	1.07	M
21 2,6-Dinitrotoluene	1	18.966	18.990	-0.024	267331	1.00	0.9747	
22 2,4-Dinitrotoluene	1	19.419	19.444	-0.025	544526	1.00	1.00	
23 Tetryl	1	22.819	22.837	-0.018	305669	1.00	0.99	
24 2,4,6-Trinitrotoluene	1	23.633	23.657	-0.024	398106	1.00	1.01	
25 PETN	2	24.939	24.957	-0.018	1327029	10.0	9.99	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added: 100.00	Units: uL
8330 DMT_00015	Amount Added: 50.00	Units: uL

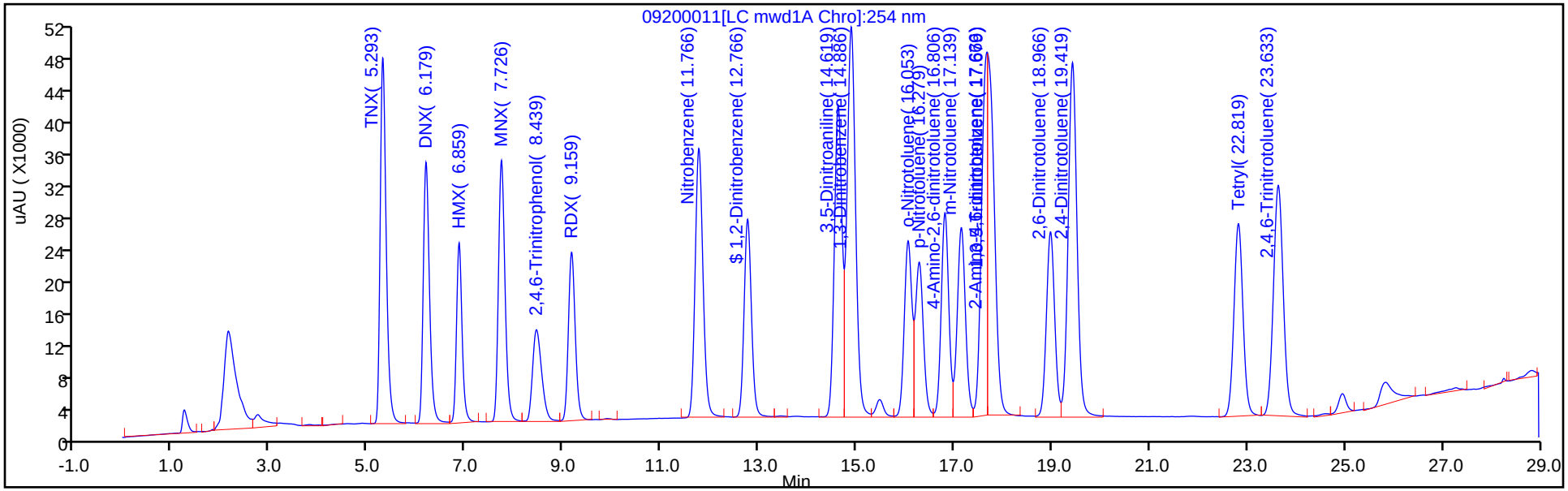
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Eurofins Denver

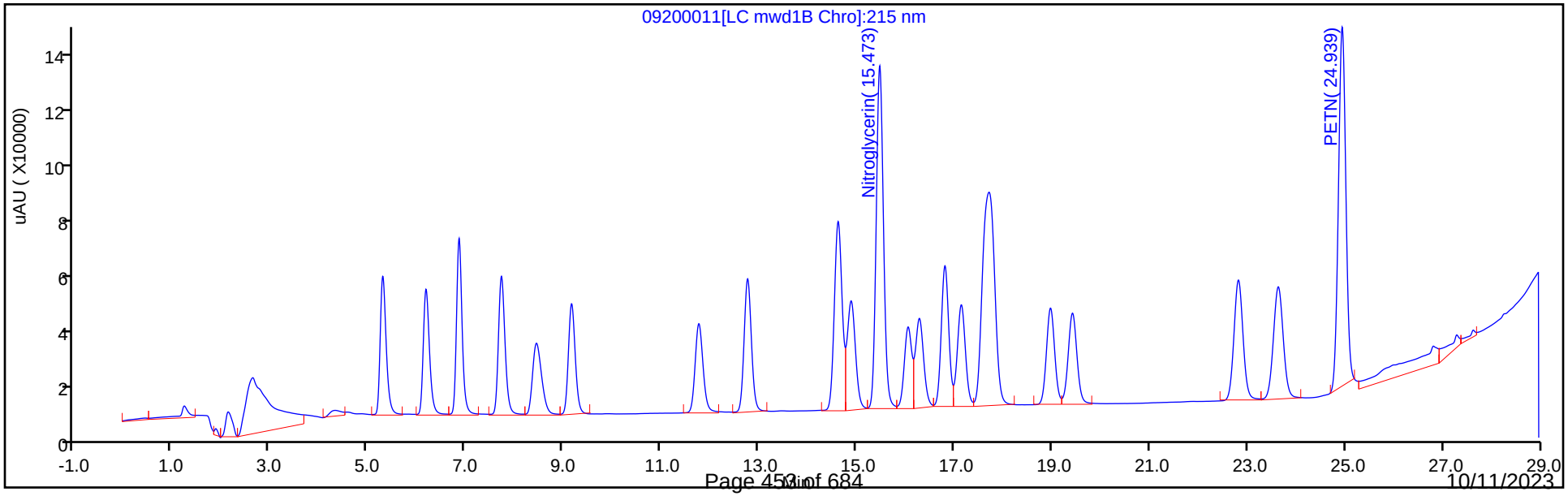
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D

Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

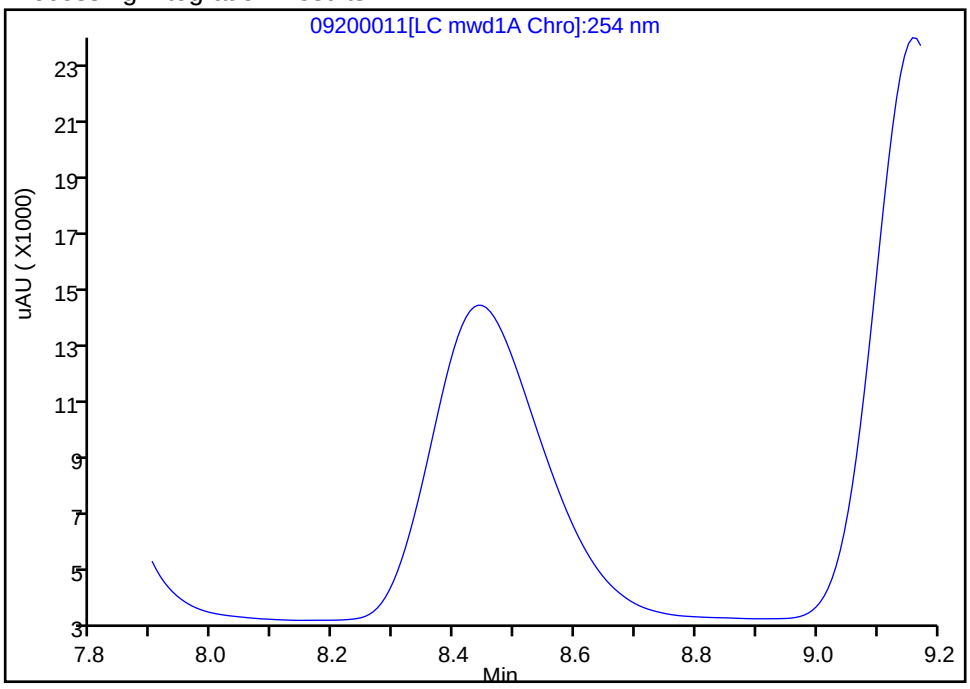
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Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

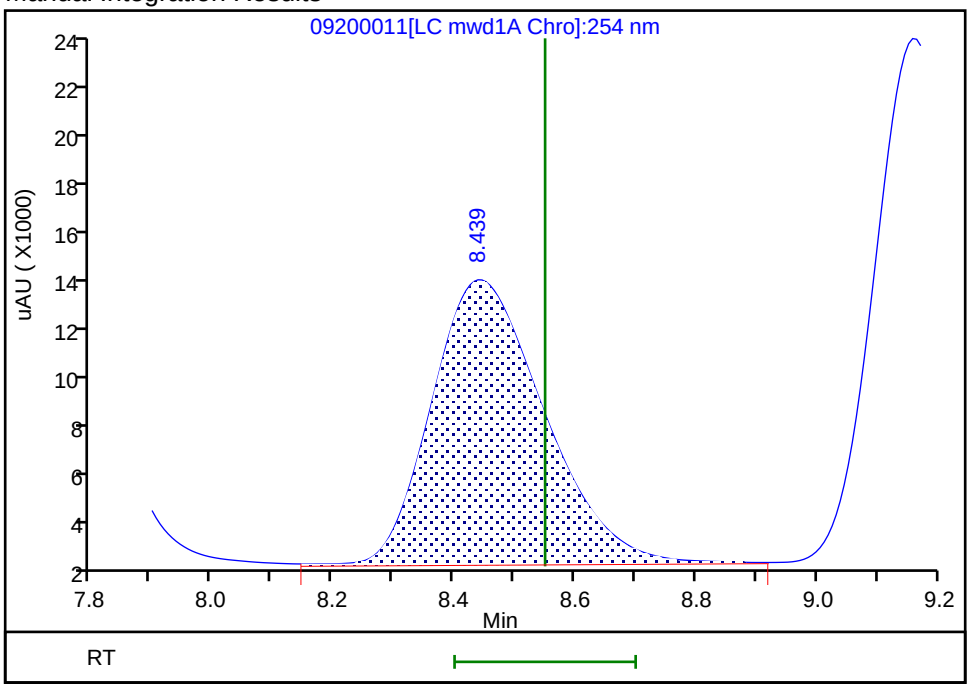
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.44
Area: 145890
Amount: 0.965087
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:01 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

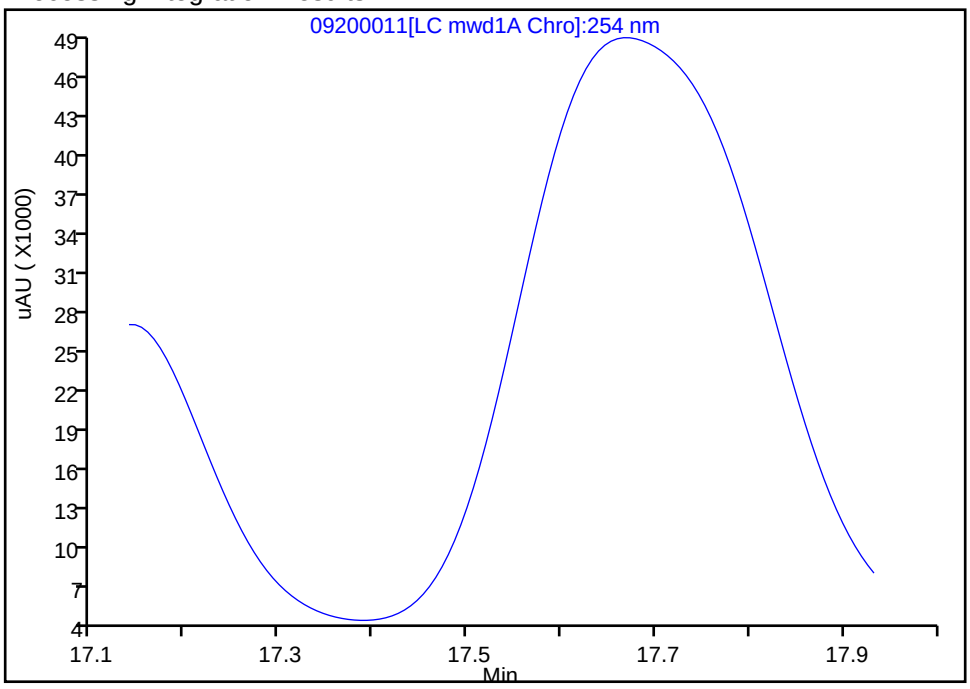
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

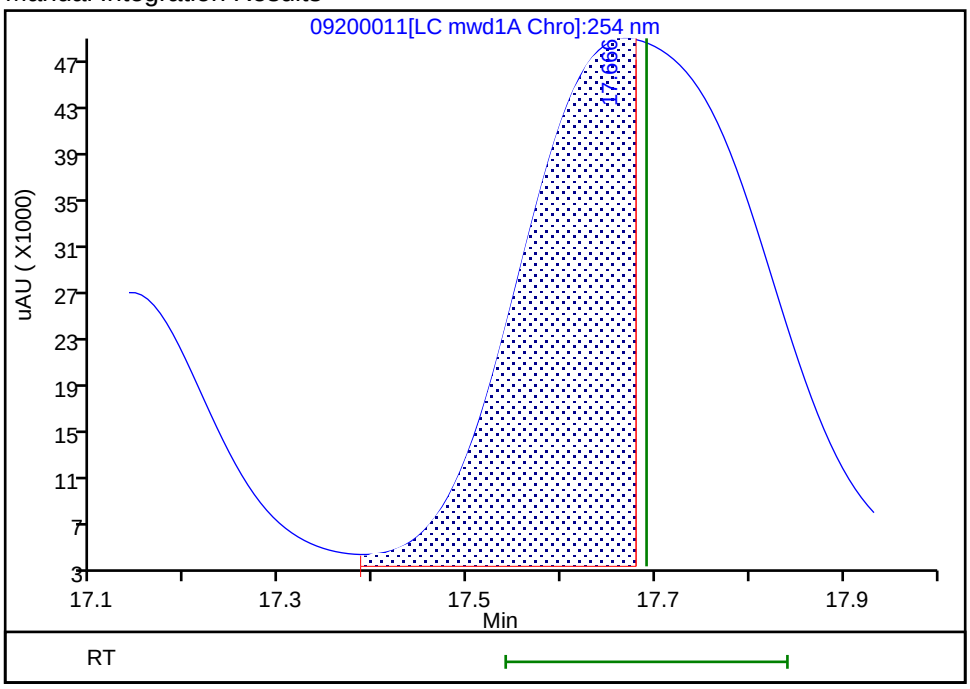
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 366541
Amount: 0.935479
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:59 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

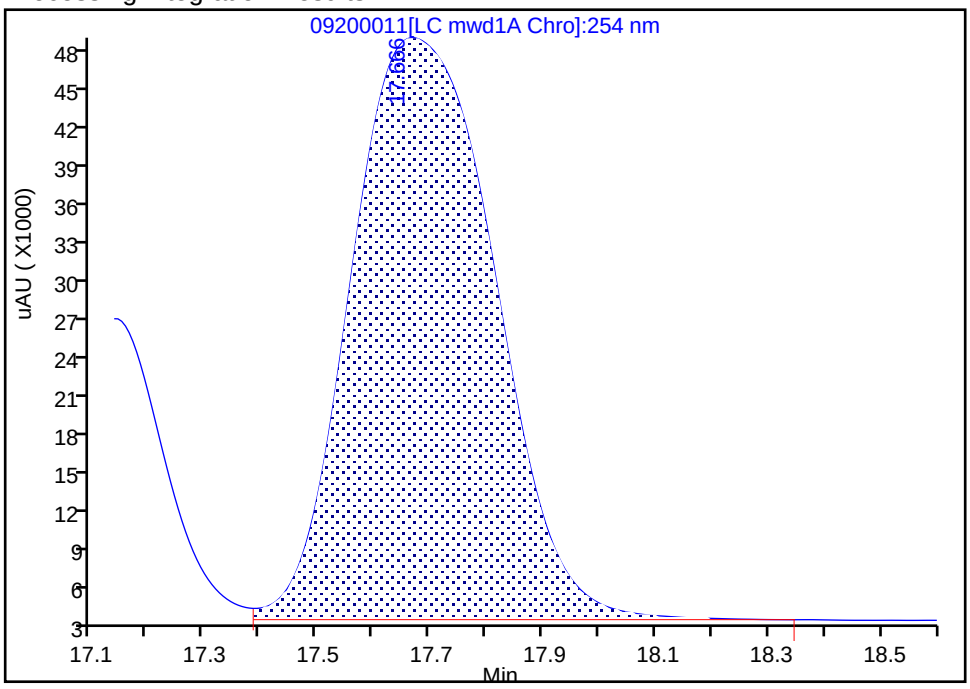
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

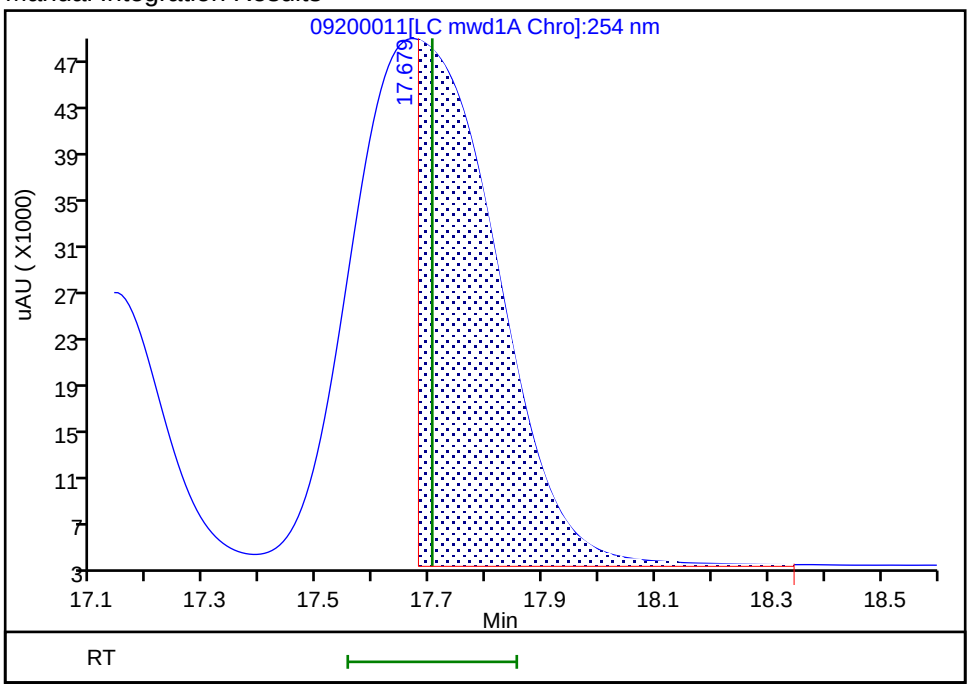
Processing Integration Results

RT: 17.67
Area: 793830
Amount: 1.067154
Amount Units: ug/ml



Manual Integration Results

RT: 17.68
Area: 427317
Amount: 1.071557
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

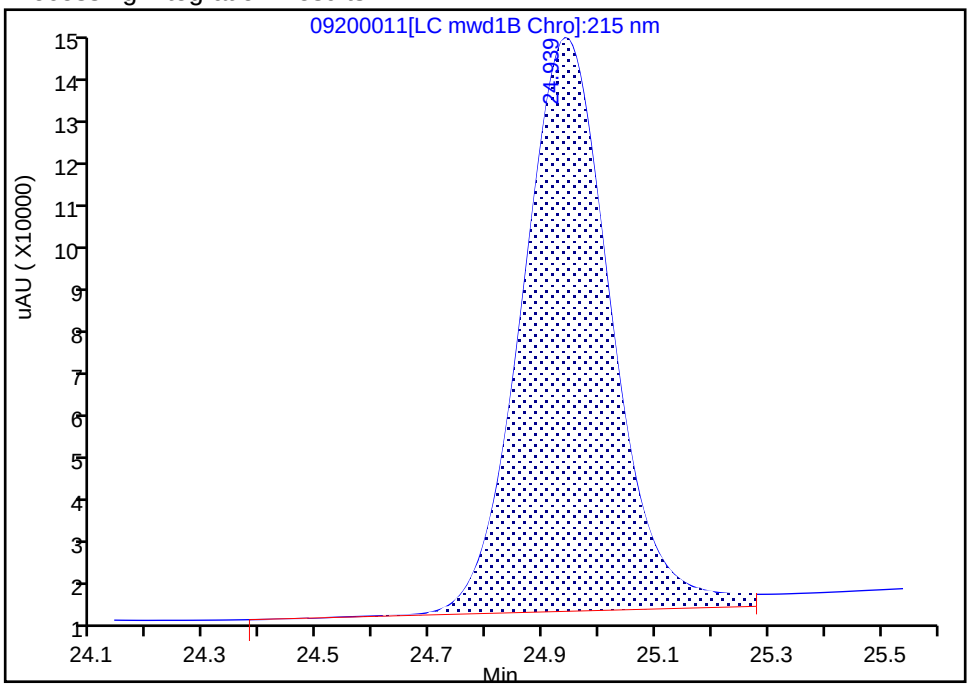
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

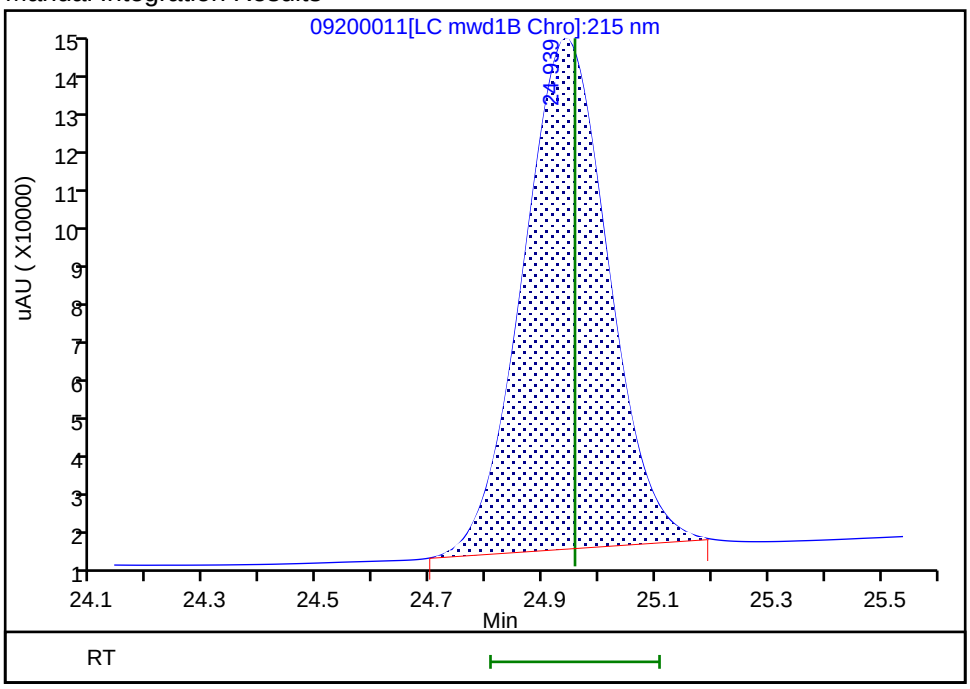
Processing Integration Results

RT: 24.94
Area: 1406045
Amount: 10.937316
Amount Units: ug/ml



Manual Integration Results

RT: 24.94
Area: 1327029
Amount: 9.986883
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:40 -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\20230920-125649.b\09200012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Sep-2023 21:11:00 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:13 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.310	5.324	-0.014	271820	0.7021	0.6919	
4 DNX	1	6.190	6.211	-0.021	199913	0.7007	0.6931	
5 HMX	1	6.863	6.877	-0.014	123224	0.7000	0.6482	
6 MNX	1	7.736	7.751	-0.015	212494	0.8169	0.8017	
7 2,4,6-Trinitrophenol	1	8.483	8.551	-0.068	101968	0.7000	0.6750	a
8 RDX	1	9.170	9.184	-0.014	142502	0.7000	0.6463	
9 Nitrobenzene	1	11.783	11.790	-0.007	260838	0.7000	0.6793	
$ 10 1,2-Dinitrobenzene	1	12.776	12.784	-0.008	178112	0.7000	0.6677	
11 3,5-Dinitroaniline	1	14.623	14.644	-0.021	292419	0.7000	0.7063	
12 1,3-Dinitrobenzene	1	14.889	14.904	-0.015	407008	0.7000	0.6952	
13 Nitroglycerin	2	15.469	15.484	-0.015	884192	7.00	6.88	
14 o-Nitrotoluene	1	16.056	16.070	-0.014	164622	0.7000	0.6929	
16 p-Nitrotoluene	1	16.289	16.297	-0.008	151013	0.7000	0.7065	
17 4-Amino-2,6-dinitrotoluene	1	16.816	16.830	-0.014	188866	0.7000	0.6943	
18 m-Nitrotoluene	1	17.149	17.164	-0.015	190110	0.7000	0.7026	
19 2-Amino-4,6-dinitrotoluene	1	17.669	17.690	-0.021	289331	0.7000	0.7384	Ma
20 1,3,5-Trinitrobenzene	1	17.703	17.704	-0.001	265296	0.7000	0.6653	M
21 2,6-Dinitrotoluene	1	18.976	18.990	-0.014	186470	0.7000	0.6799	
22 2,4-Dinitrotoluene	1	19.423	19.444	-0.021	379865	0.7000	0.6979	
23 Tetryl	1	22.830	22.837	-0.007	212907	0.7000	0.6913	
24 2,4,6-Trinitrotoluene	1	23.650	23.657	-0.007	277305	0.7000	0.7022	
25 PETN	2	24.956	24.957	-0.001	928111	7.00	6.99	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	70.00	Units: uL
8330 DMT_00015	Amount Added:	35.00	Units: uL

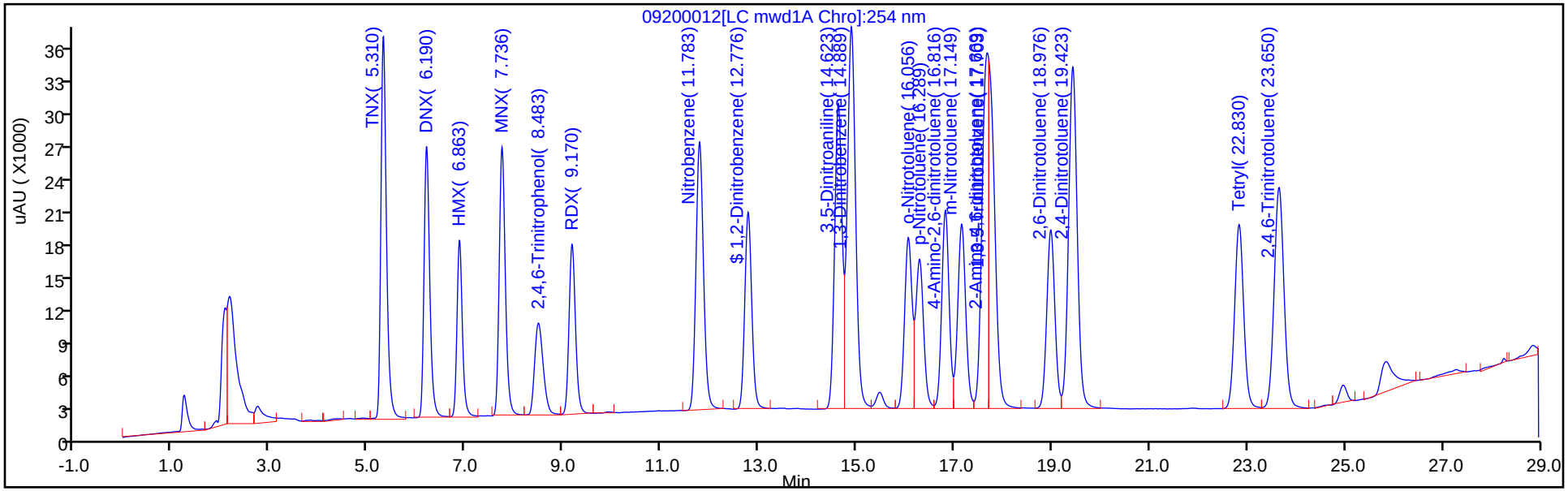
Report Date: 21-Sep-2023 16:09:13 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

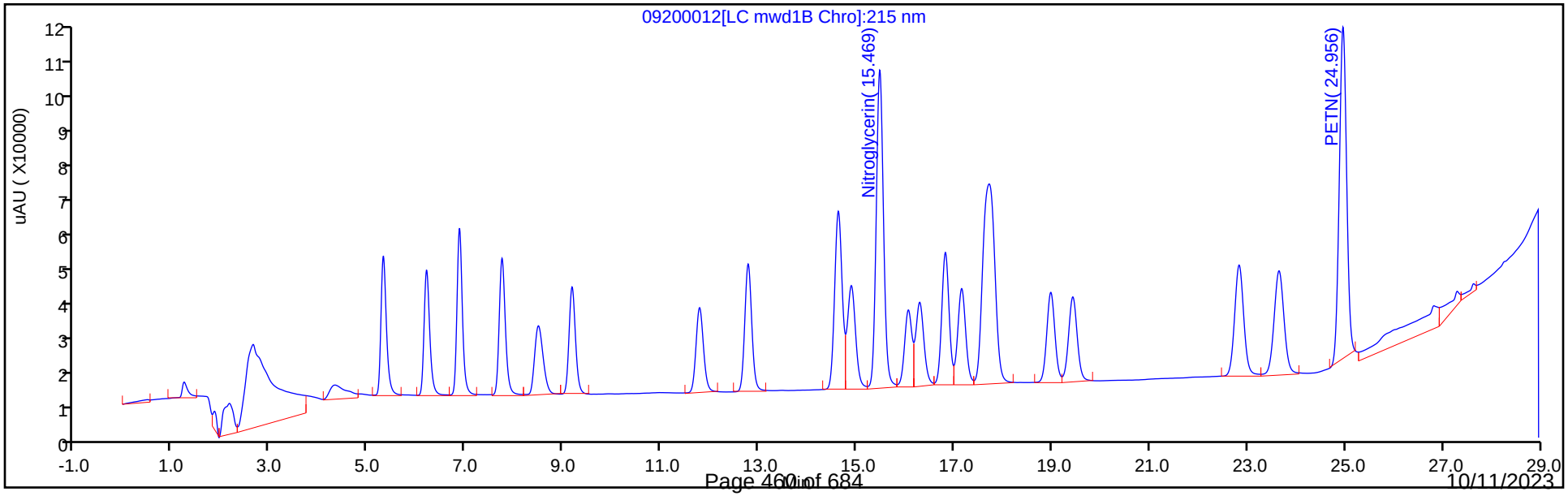
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D

Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

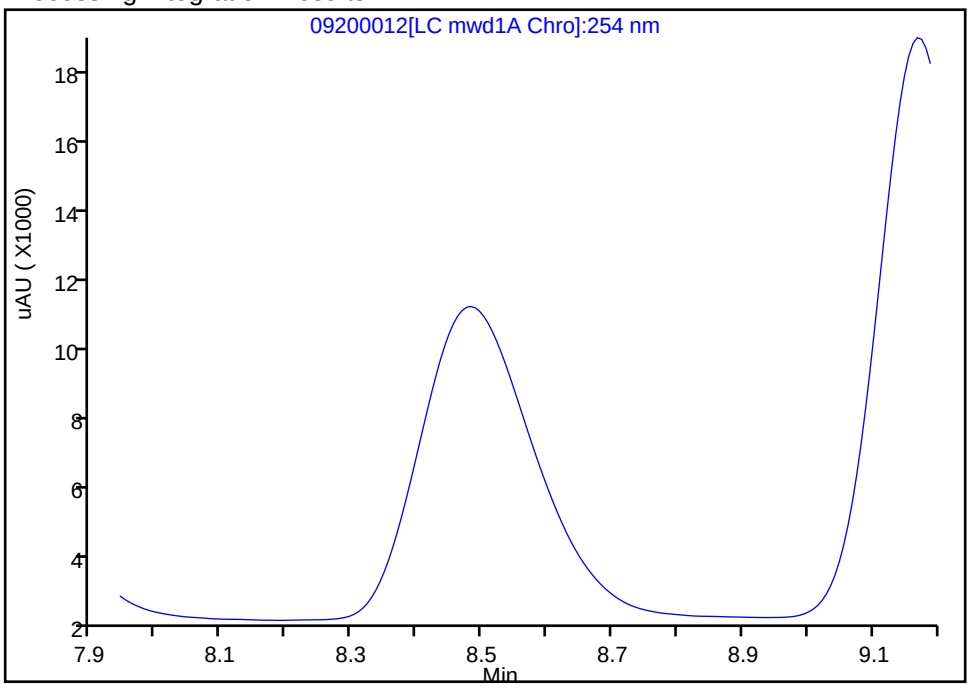
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

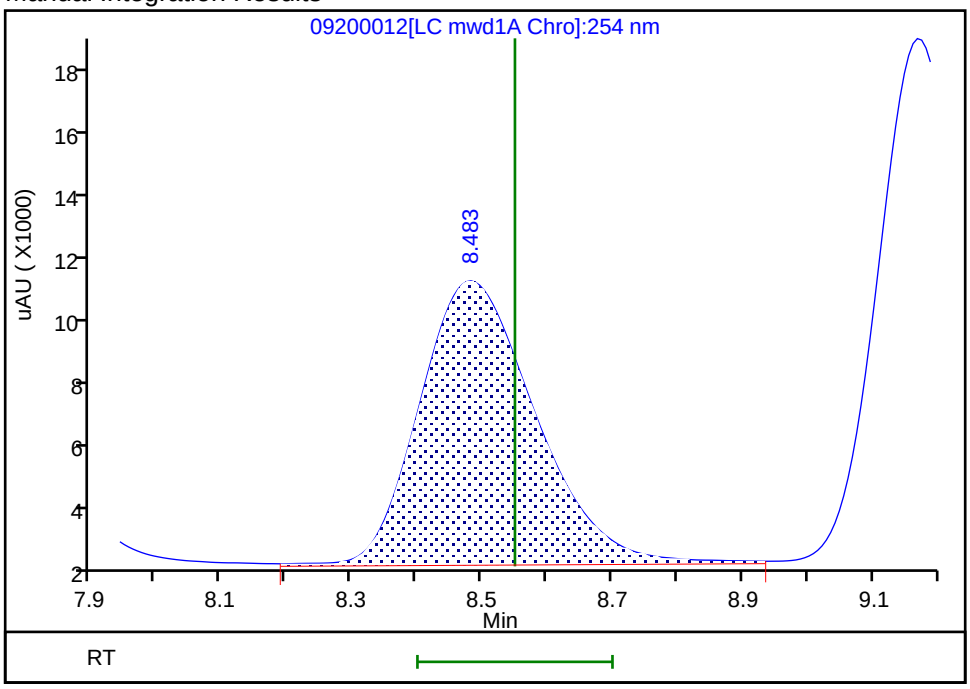
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.48
Area: 101968
Amount: 0.674961
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:05 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver

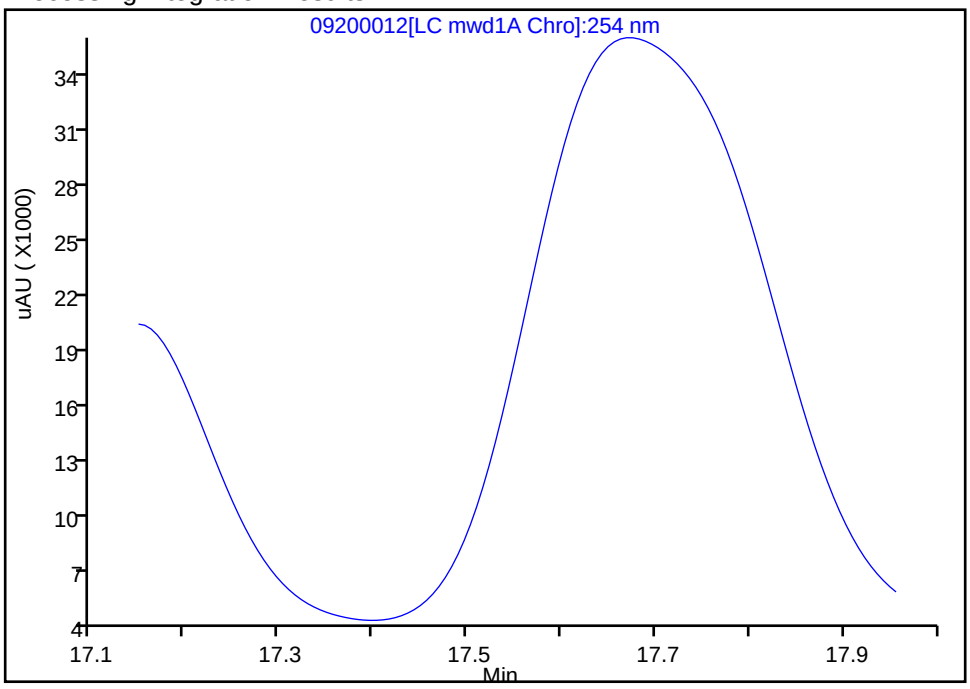
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

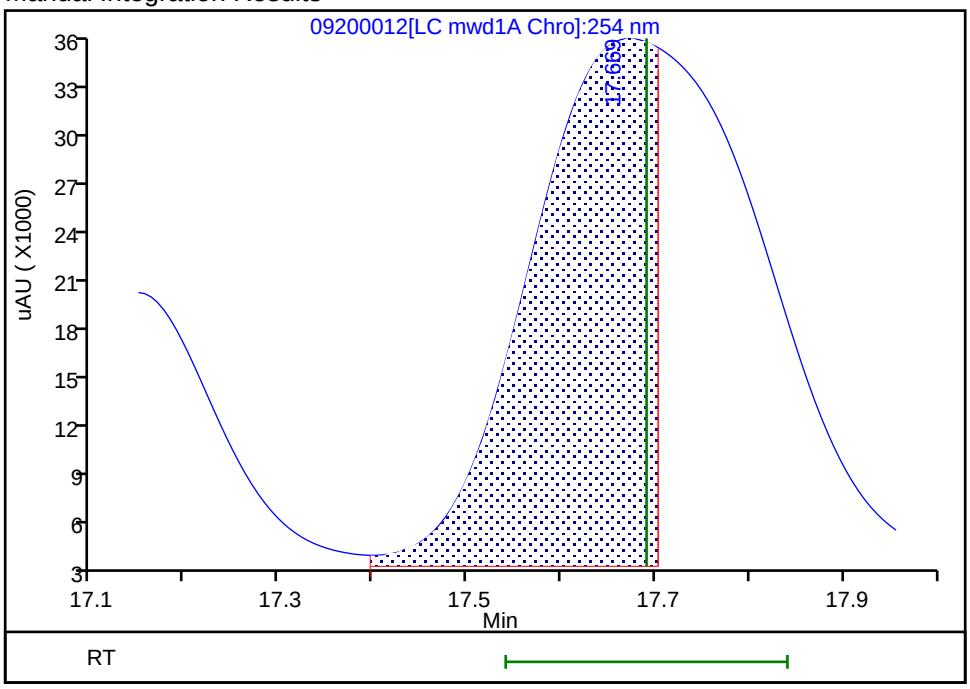
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 289331
Amount: 0.738425
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:12 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

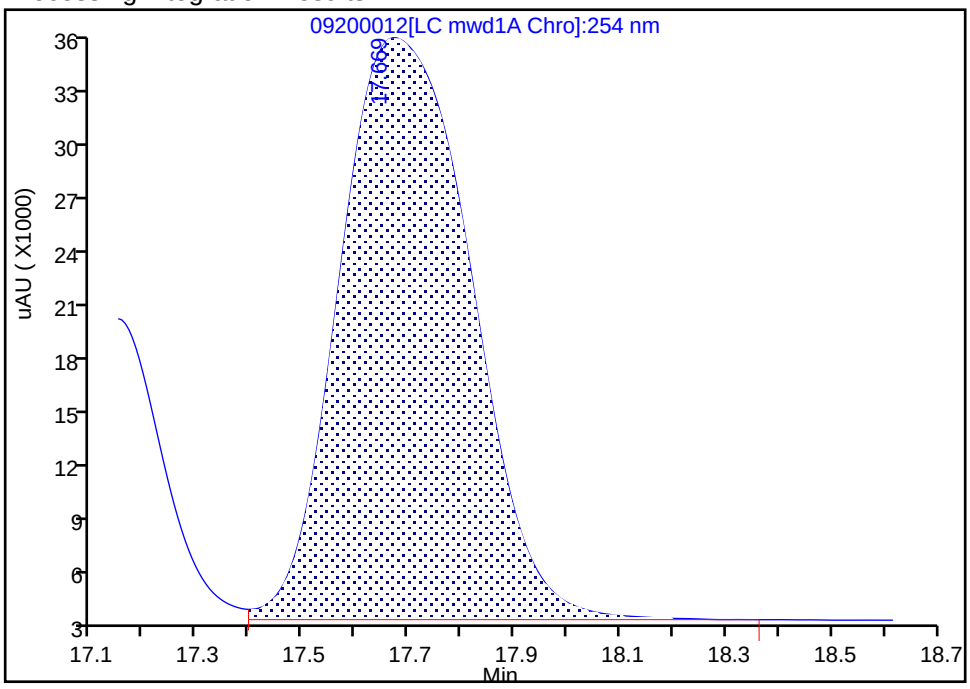
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

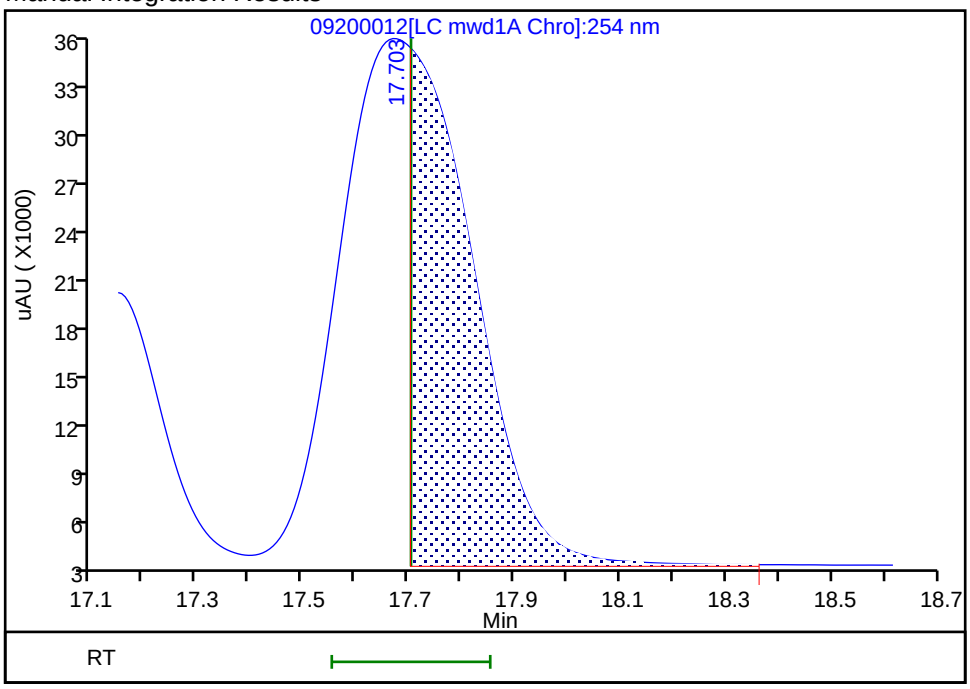
Processing Integration Results

RT: 17.67
Area: 554614
Amount: 0.788754
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 265296
Amount: 0.665267
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

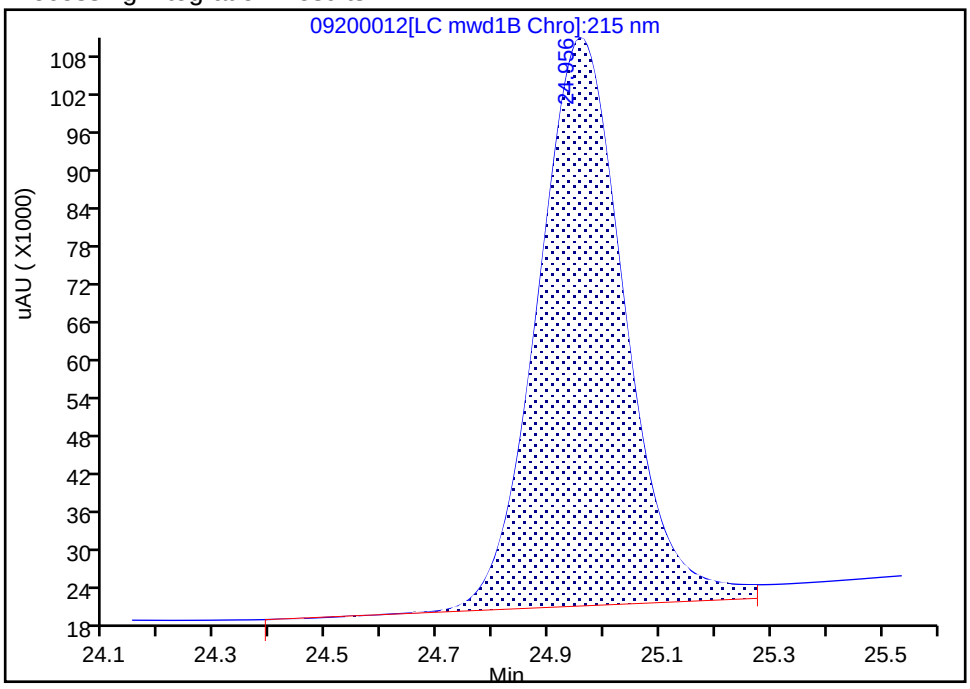
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

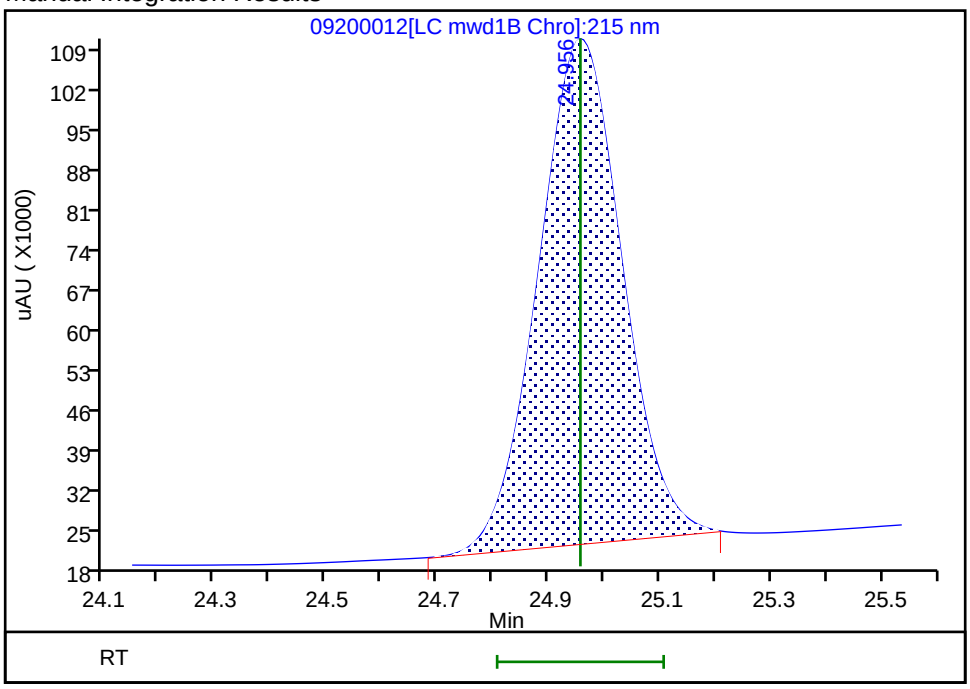
Processing Integration Results

RT: 24.96
Area: 987884
Amount: 7.628235
Amount Units: ug/ml



Manual Integration Results

RT: 24.96
Area: 928111
Amount: 6.990588
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:36 -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\20230920-125649.b\09200013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Sep-2023 21:45:55 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:14 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:26

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.315	5.324	-0.009	152083	0.4012	0.3871	
4 DNX	1	6.201	6.211	-0.010	112495	0.4004	0.3900	
5 HMX	1	6.875	6.877	-0.002	71753	0.4000	0.3774	
6 MNX	1	7.748	7.751	-0.003	119982	0.4668	0.4527	
7 2,4,6-Trinitrophenol	1	8.528	8.551	-0.023	58834	0.4000	0.3900	a
8 RDX	1	9.188	9.184	0.004	82497	0.4000	0.3742	
9 Nitrobenzene	1	11.788	11.790	-0.002	152954	0.4000	0.3983	
$ 10 1,2-Dinitrobenzene	1	12.781	12.784	-0.003	102725	0.4000	0.3851	
11 3,5-Dinitroaniline	1	14.634	14.644	-0.010	167829	0.4000	0.4053	
12 1,3-Dinitrobenzene	1	14.901	14.904	-0.003	231911	0.4000	0.3961	
13 Nitroglycerin	2	15.481	15.484	-0.003	502697	4.00	3.91	
14 o-Nitrotoluene	1	16.061	16.070	-0.009	93612	0.4000	0.3940	
16 p-Nitrotoluene	1	16.294	16.297	-0.003	86004	0.4000	0.4024	
17 4-Amino-2,6-dinitrotoluene	1	16.814	16.830	-0.016	107186	0.4000	0.3940	
18 m-Nitrotoluene	1	17.148	17.164	-0.016	107991	0.4000	0.3991	
19 2-Amino-4,6-dinitrotoluene	1	17.674	17.690	-0.016	162249	0.4000	0.4141	Ma
20 1,3,5-Trinitrobenzene	1	17.701	17.704	-0.003	153278	0.4000	0.3844	M
21 2,6-Dinitrotoluene	1	18.974	18.990	-0.016	106943	0.4000	0.3899	
22 2,4-Dinitrotoluene	1	19.428	19.444	-0.016	217437	0.4000	0.3995	
23 Tetryl	1	22.828	22.837	-0.009	122409	0.4000	0.3975	
24 2,4,6-Trinitrotoluene	1	23.641	23.657	-0.016	159128	0.4000	0.4029	
25 PETN	2	24.955	24.957	-0.002	529728	4.00	4.00	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	40.00	Units: uL
8330 DMT_00015	Amount Added:	20.00	Units: uL

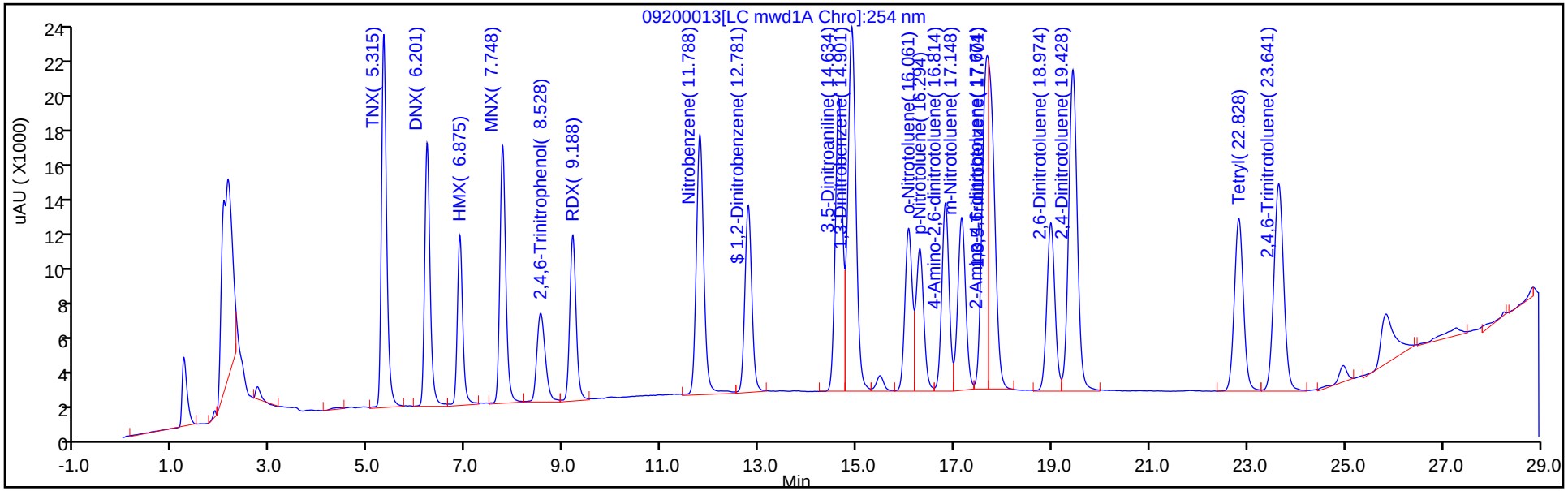
Report Date: 21-Sep-2023 16:09:14 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

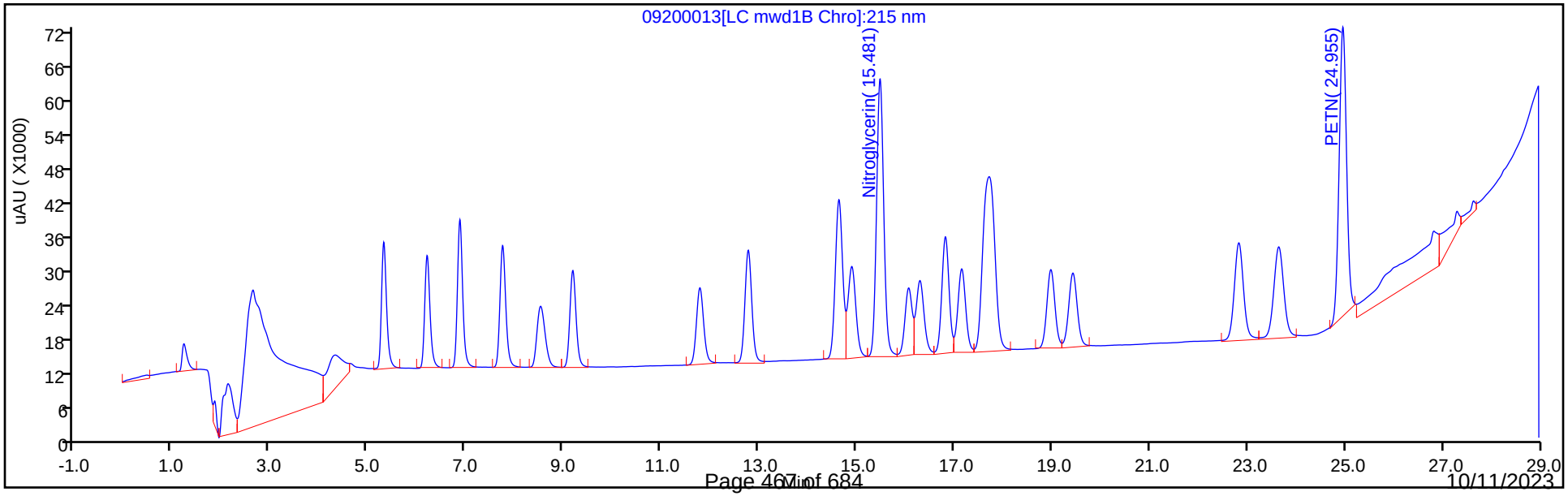
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D

Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

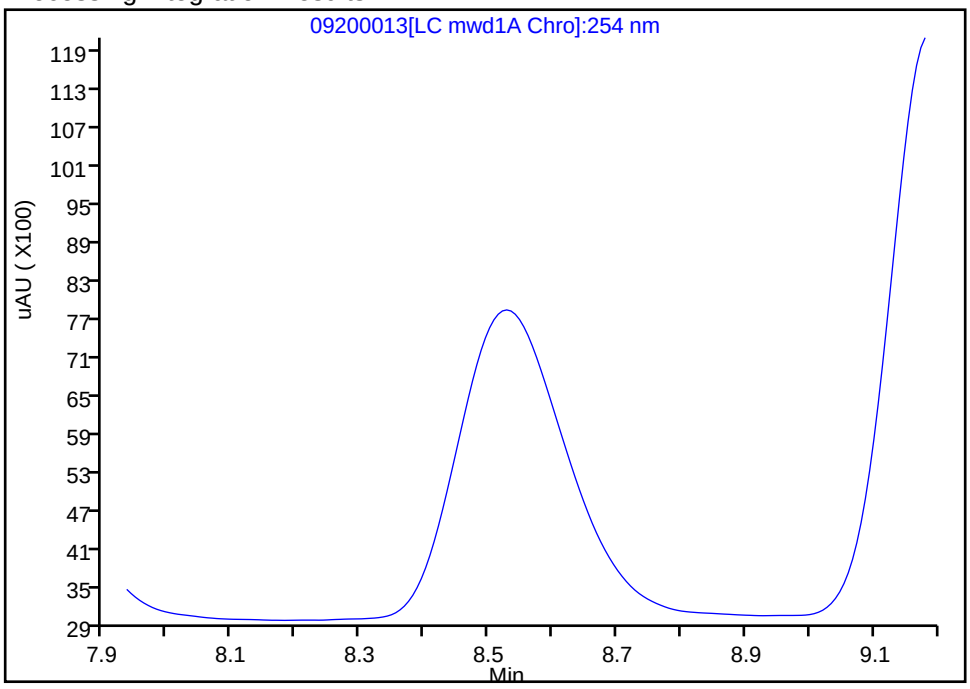
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Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

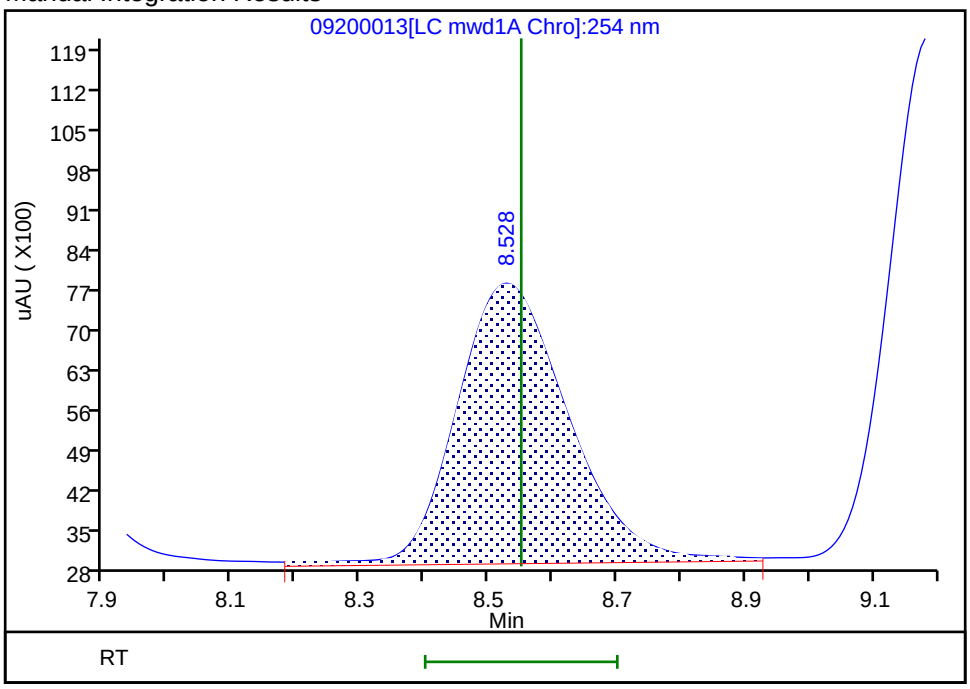
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.53
Area: 58834
Amount: 0.390040
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:17 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

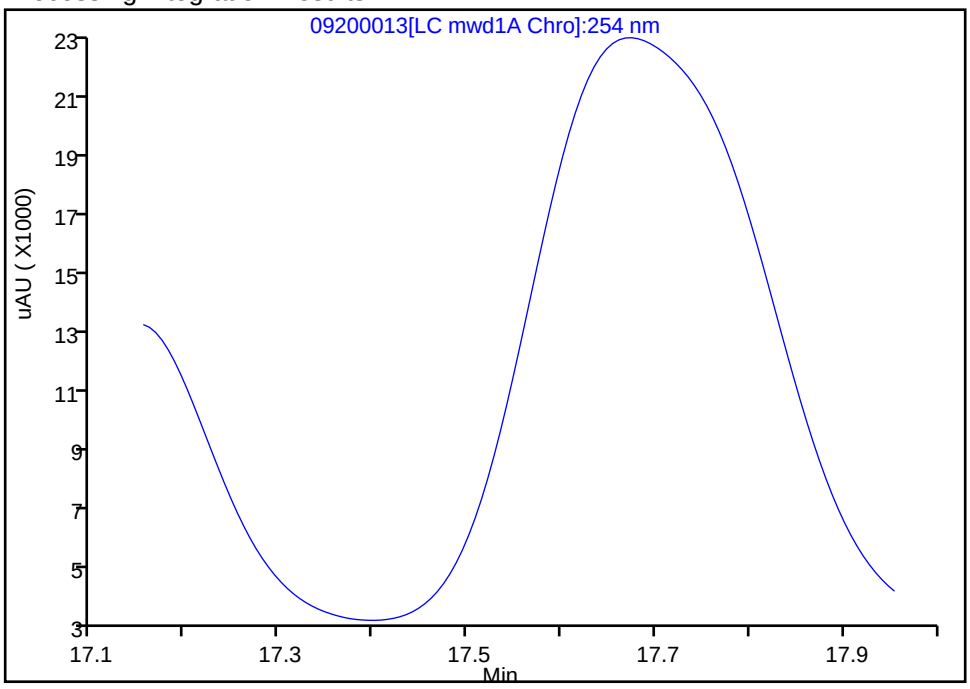
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Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

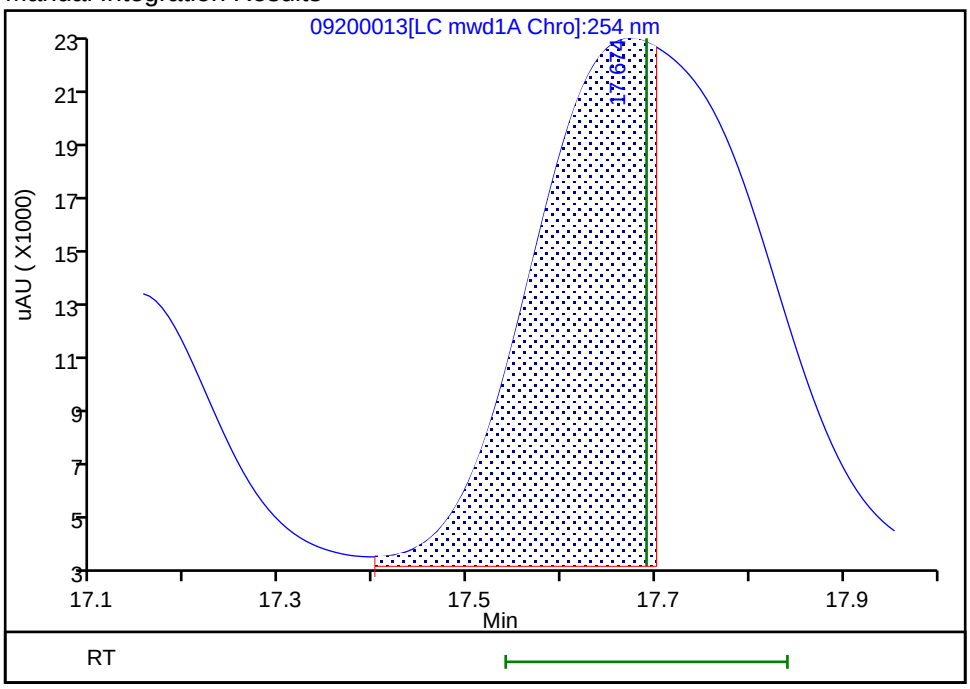
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 162249
Amount: 0.414089
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:23 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

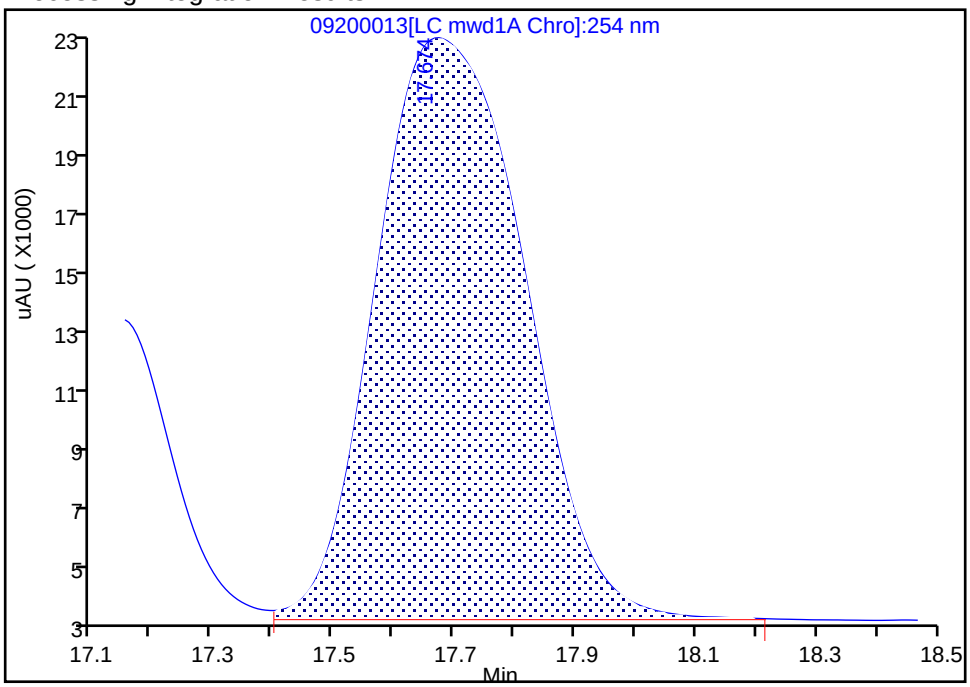
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Injection Date: 20-Sep-2023 21:45:55 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

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

Signal: 1

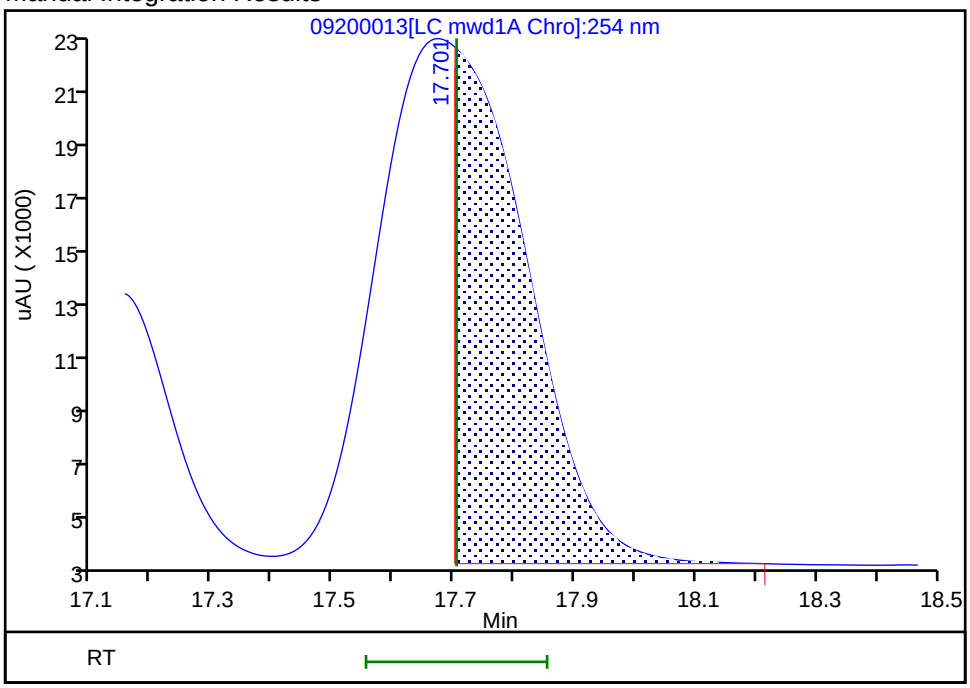
Processing Integration Results

RT: 17.67
Area: 315526
Amount: 0.480086
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 153278
Amount: 0.384366
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

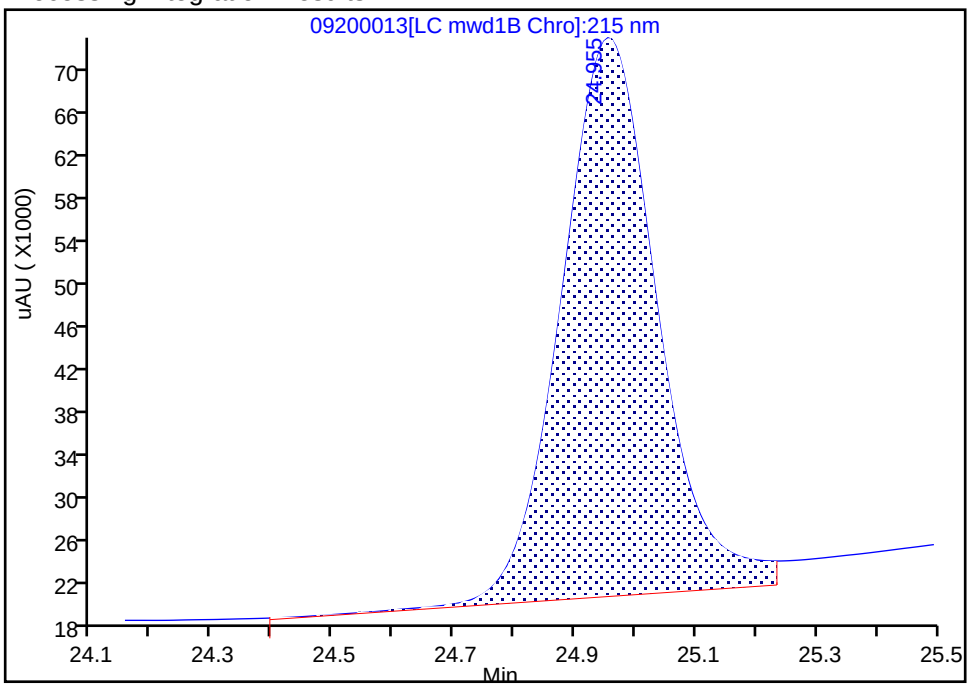
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Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

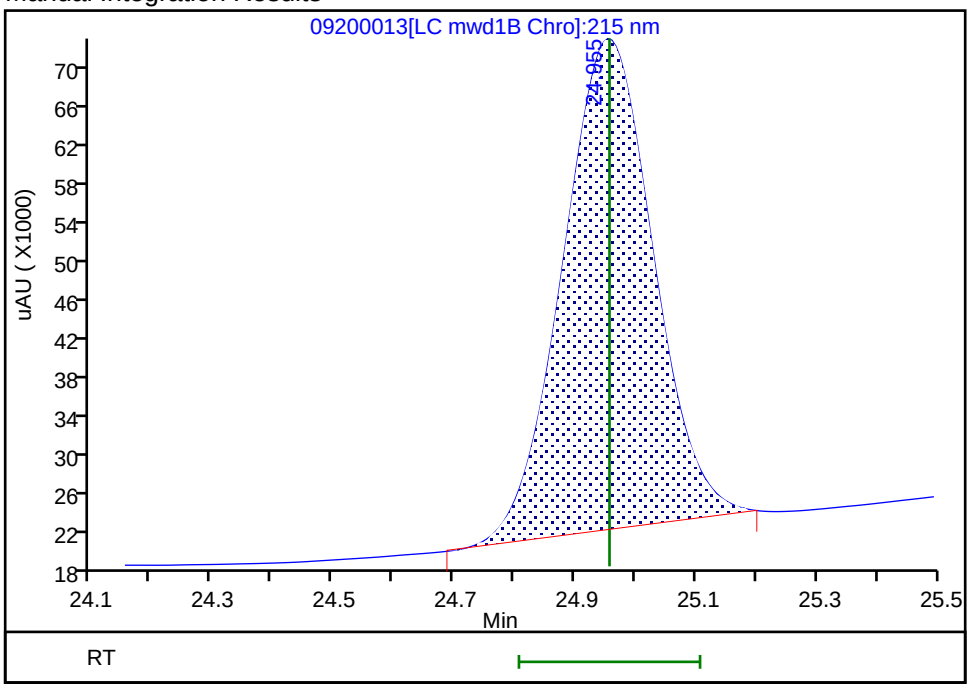
Processing Integration Results

RT: 24.95
Area: 578130
Amount: 4.418329
Amount Units: ug/ml



Manual Integration Results

RT: 24.95
Area: 529728
Amount: 3.998312
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:32 -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\20230920-125649.b\09200014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Sep-2023 22:20:51 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:15 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.324	5.324	0.000	96767	0.2508	0.2463	
4 DNX	1	6.211	6.211	0.000	71744	0.2503	0.2487	
5 HMX	1	6.877	6.877	0.000	44396	0.2500	0.2335	
6 MNX	1	7.751	7.751	0.000	76600	0.2918	0.2890	
7 2,4,6-Trinitrophenol	1	8.551	8.551	0.000	36365	0.2500	0.2416	a
8 RDX	1	9.184	9.184	0.000	51077	0.2500	0.2317	
9 Nitrobenzene	1	11.790	11.790	0.000	91122	0.2500	0.2373	
$ 10 1,2-Dinitrobenzene	1	12.784	12.784	0.000	62960	0.2500	0.2360	
11 3,5-Dinitroaniline	1	14.644	14.644	0.000	103109	0.2500	0.2490	
12 1,3-Dinitrobenzene	1	14.904	14.904	0.000	144154	0.2500	0.2462	
13 Nitroglycerin	2	15.484	15.484	0.000	313040	2.50	2.44	
14 o-Nitrotoluene	1	16.070	16.070	0.000	57785	0.2500	0.2432	
16 p-Nitrotoluene	1	16.297	16.297	0.000	52374	0.2500	0.2450	
17 4-Amino-2,6-dinitrotoluene	1	16.830	16.830	0.000	66325	0.2500	0.2438	
18 m-Nitrotoluene	1	17.164	17.164	0.000	66007	0.2500	0.2439	
19 2-Amino-4,6-dinitrotoluene	1	17.690	17.690	0.000	92394	0.2500	0.2358	Ma
20 1,3,5-Trinitrobenzene	1	17.704	17.704	0.000	102515	0.2500	0.2571	M
21 2,6-Dinitrotoluene	1	18.990	18.990	0.000	66066	0.2500	0.2409	
22 2,4-Dinitrotoluene	1	19.444	19.444	0.000	133458	0.2500	0.2452	
23 Tetryl	1	22.837	22.837	0.000	75424	0.2500	0.2449	
24 2,4,6-Trinitrotoluene	1	23.657	23.657	0.000	98375	0.2500	0.2491	
25 PETN	2	24.957	24.957	0.000	327642	2.50	2.48	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330 DMT_00015	Amount Added:	12.50	Units: uL

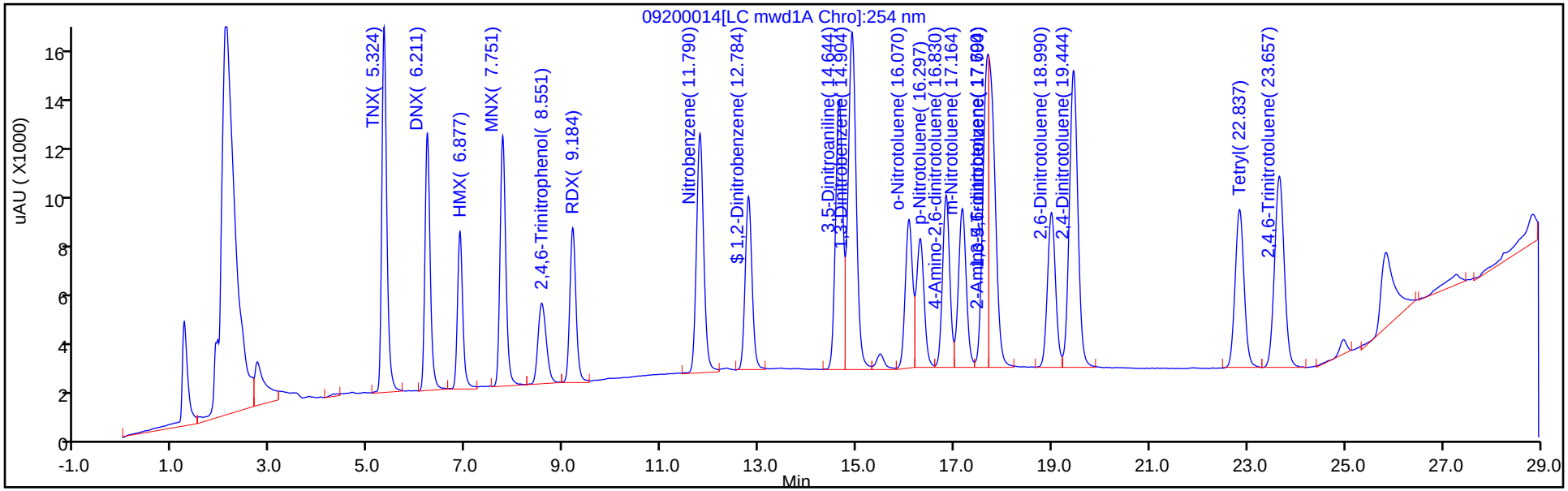
Report Date: 21-Sep-2023 16:09:15 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

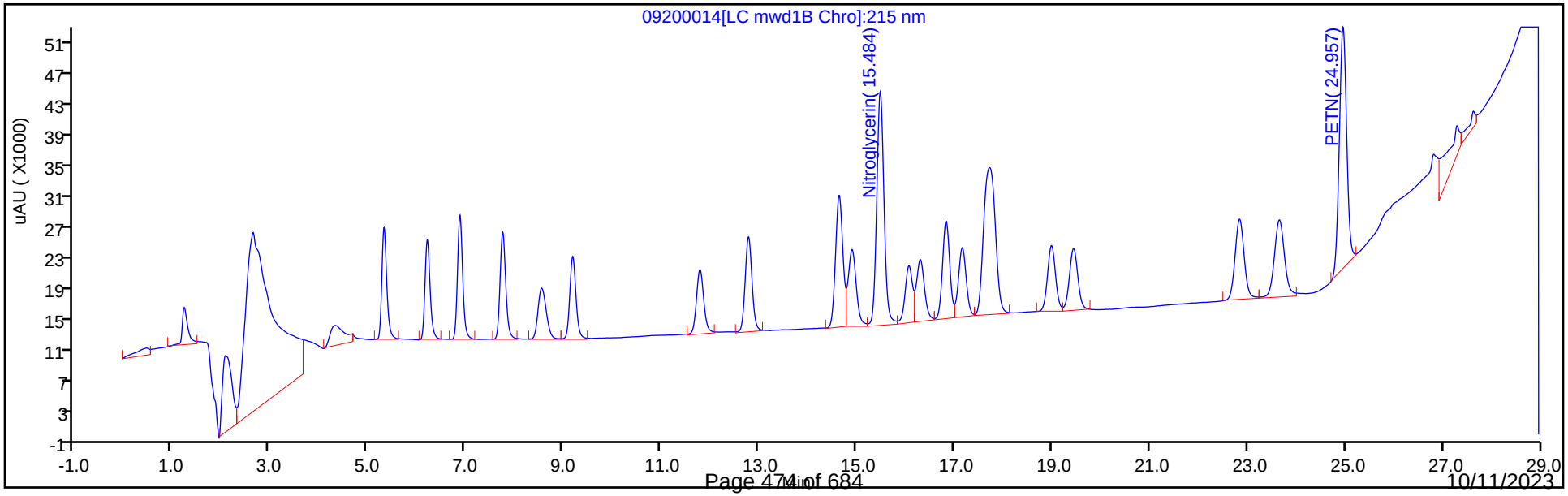
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D

Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

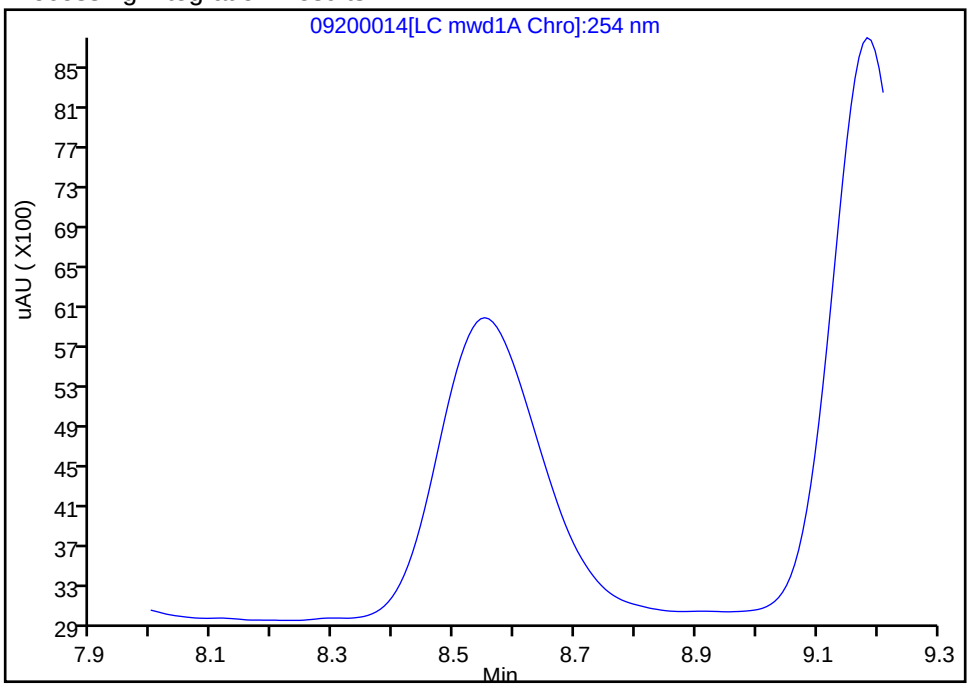
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Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

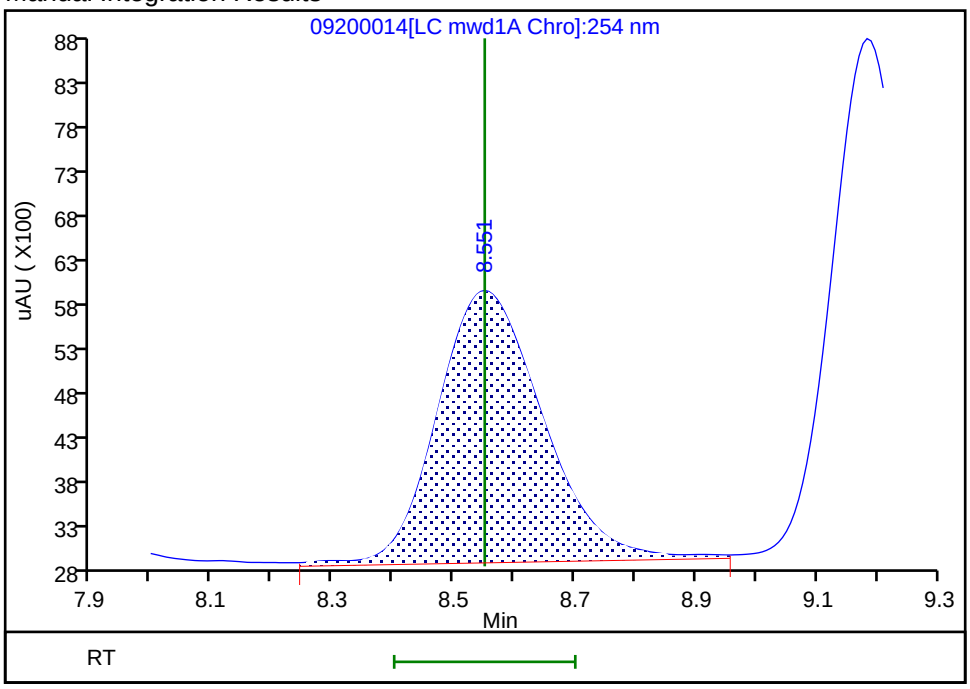
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.55
Area: 36365
Amount: 0.241621
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:34 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

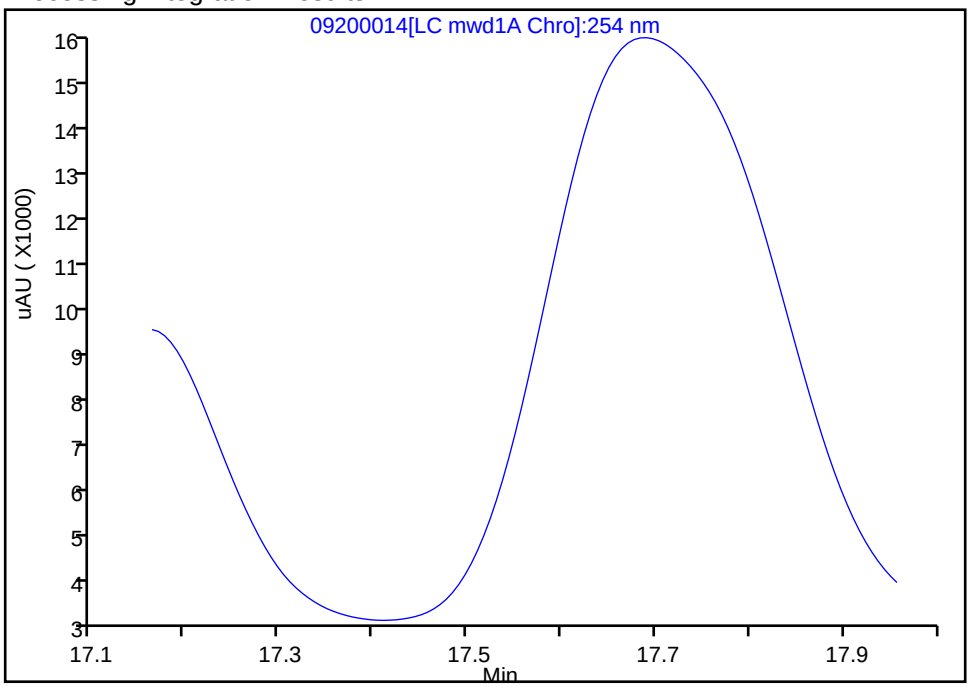
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

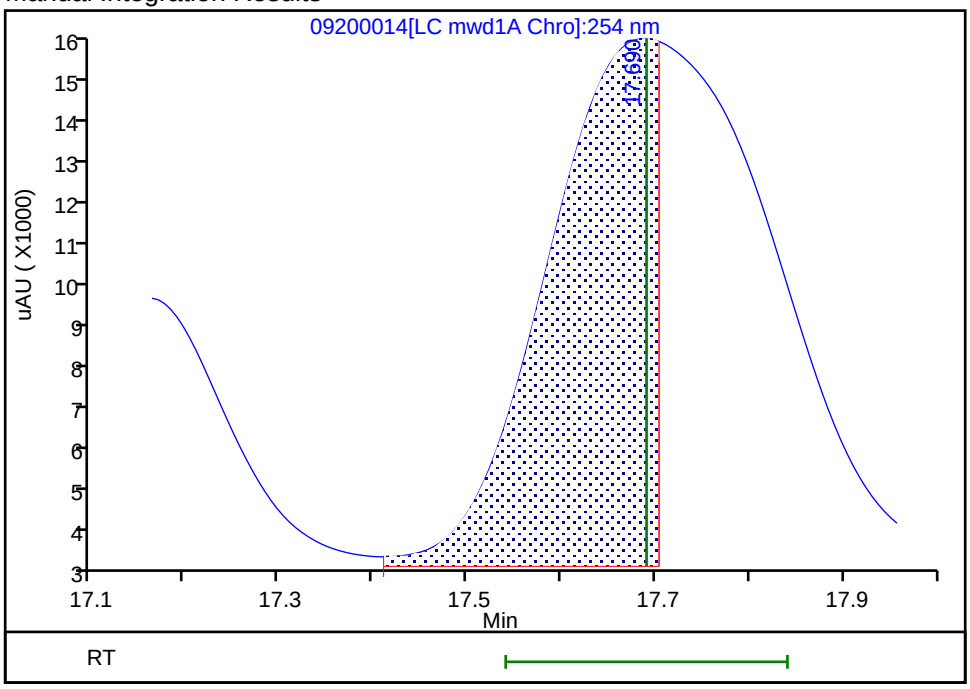
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.69
Area: 92394
Amount: 0.235806
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:43 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

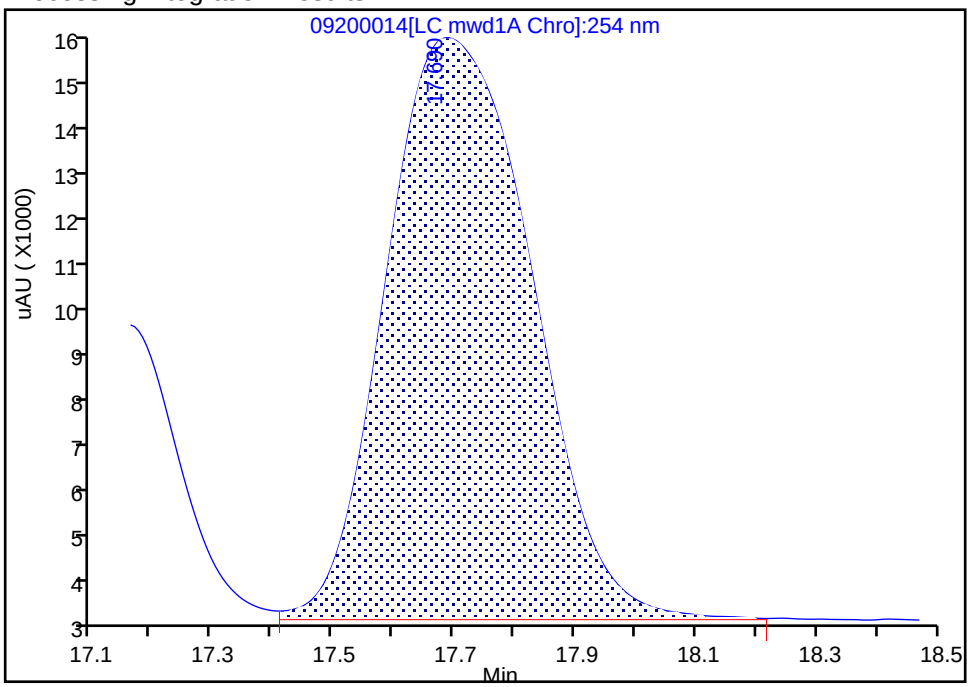
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

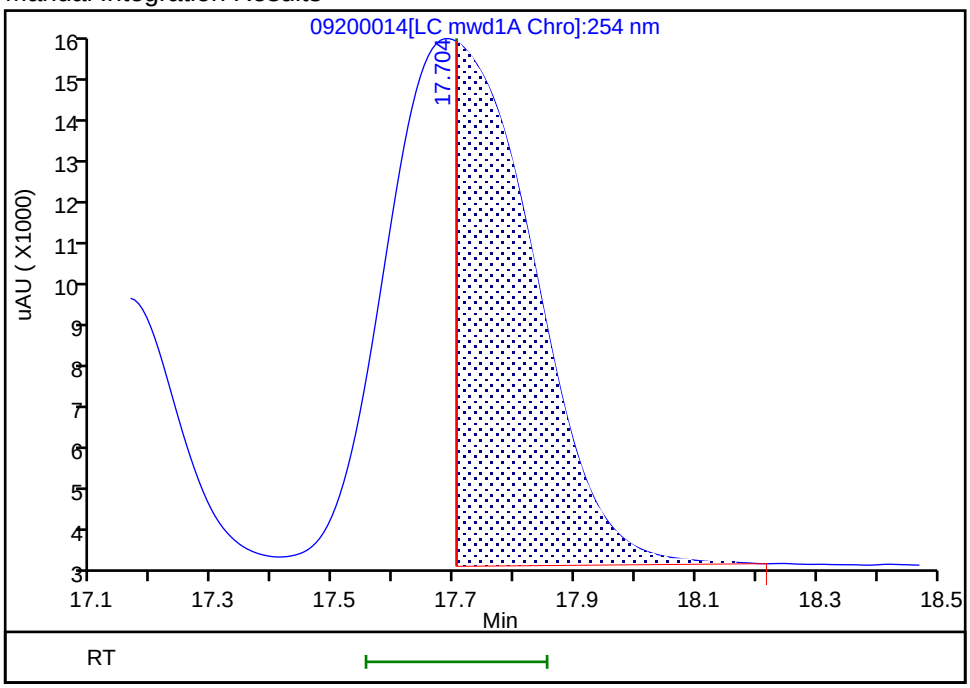
Processing Integration Results

RT: 17.69
Area: 194909
Amount: 0.318396
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 102515
Amount: 0.257071
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

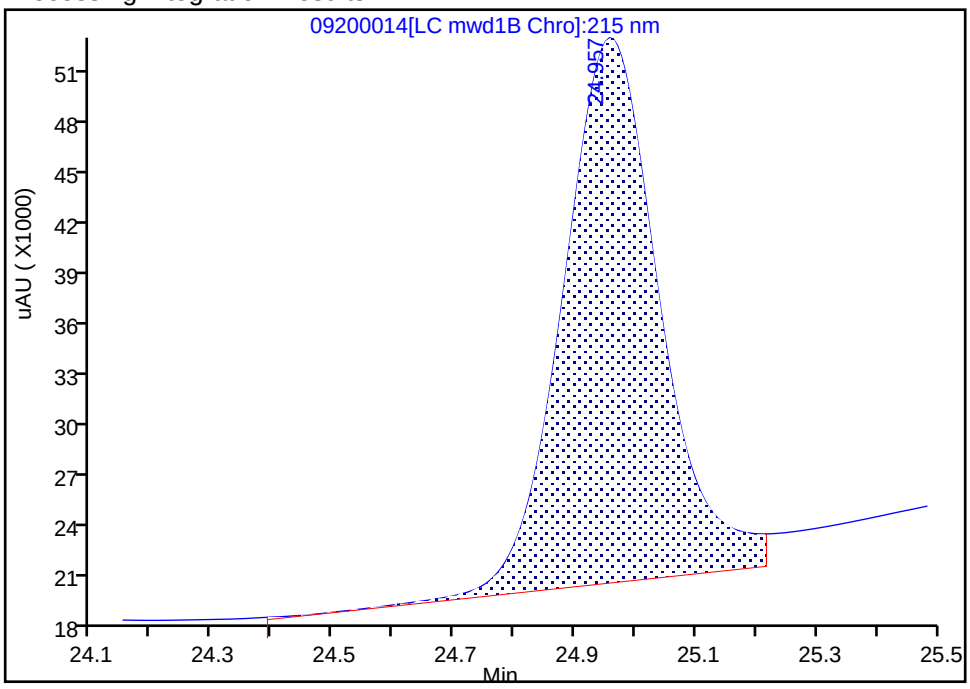
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

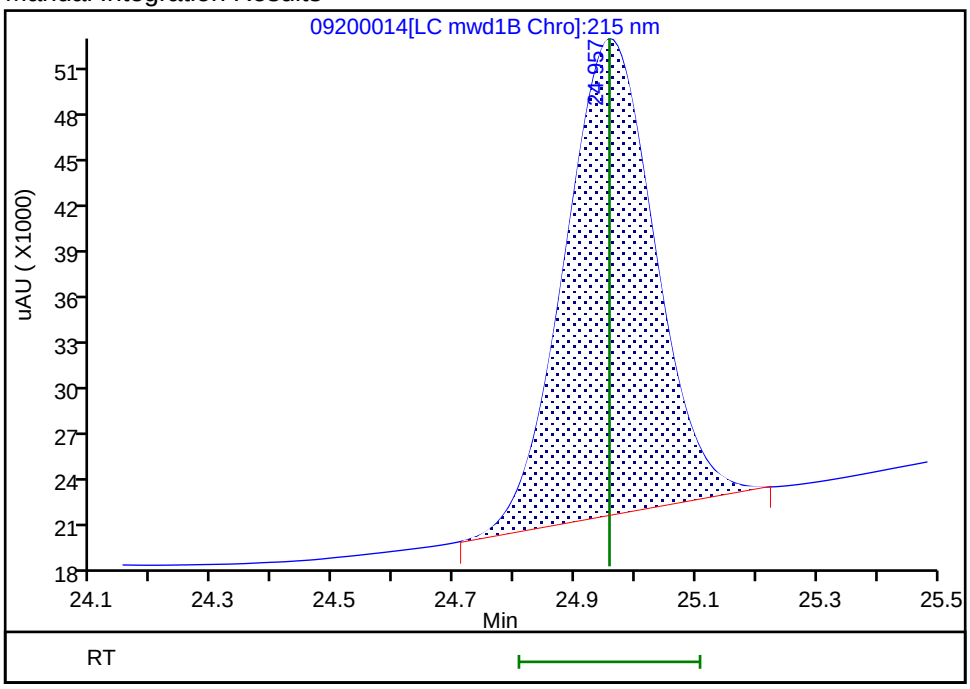
Processing Integration Results

RT: 24.96
Area: 362875
Amount: 2.740457
Amount Units: ug/ml



Manual Integration Results

RT: 24.96
Area: 327642
Amount: 2.480433
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:28 -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\20230920-125649.b\09200015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Sep-2023 22:55:45 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:15 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.332	5.324	0.008	38813	0.1003	0.0988	
4 DNX	1	6.225	6.211	0.014	29075	0.1001	0.1008	
5 HMX	1	6.899	6.877	0.022	19028	0.1000	0.1001	
6 MNX	1	7.772	7.751	0.021	30950	0.1167	0.1168	
7 2,4,6-Trinitrophenol	1	8.599	8.551	0.048	15233	0.1000	0.1020	
8 RDX	1	9.205	9.184	0.021	21516	0.1000	0.0976	
9 Nitrobenzene	1	11.805	11.790	0.015	38021	0.1000	0.0990	
$ 10 1,2-Dinitrobenzene	1	12.805	12.784	0.021	25765	0.1000	0.0966	
11 3,5-Dinitroaniline	1	14.665	14.644	0.021	41990	0.1000	0.1013	
12 1,3-Dinitrobenzene	1	14.925	14.904	0.021	58579	0.1000	0.1001	
13 Nitroglycerin	2	15.505	15.484	0.021	132632	1.00	1.03	
14 o-Nitrotoluene	1	16.092	16.070	0.022	24028	0.1000	0.1011	
16 p-Nitrotoluene	1	16.325	16.297	0.028	21805	0.1000	0.1020	
17 4-Amino-2,6-dinitrotoluene	1	16.852	16.830	0.022	27371	0.1000	0.1006	
18 m-Nitrotoluene	1	17.185	17.164	0.021	27484	0.1000	0.1016	
19 2-Amino-4,6-dinitrotoluene	1	17.712	17.690	0.022	41548	0.1000	0.1060	M
20 1,3,5-Trinitrobenzene	1	17.738	17.704	0.034	38099	0.1000	0.0955	M
21 2,6-Dinitrotoluene	1	19.012	18.990	0.022	27251	0.1000	0.0994	
22 2,4-Dinitrotoluene	1	19.458	19.444	0.014	54173	0.1000	0.0995	
23 Tetryl	1	22.859	22.837	0.022	30640	0.1000	0.0995	
24 2,4,6-Trinitrotoluene	1	23.672	23.657	0.015	40193	0.1000	0.1018	
25 PETN	2	24.972	24.957	0.015	131058	1.00	1.00	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	10.00	Units: uL
8330 DMT_00015	Amount Added:	5.00	Units: uL

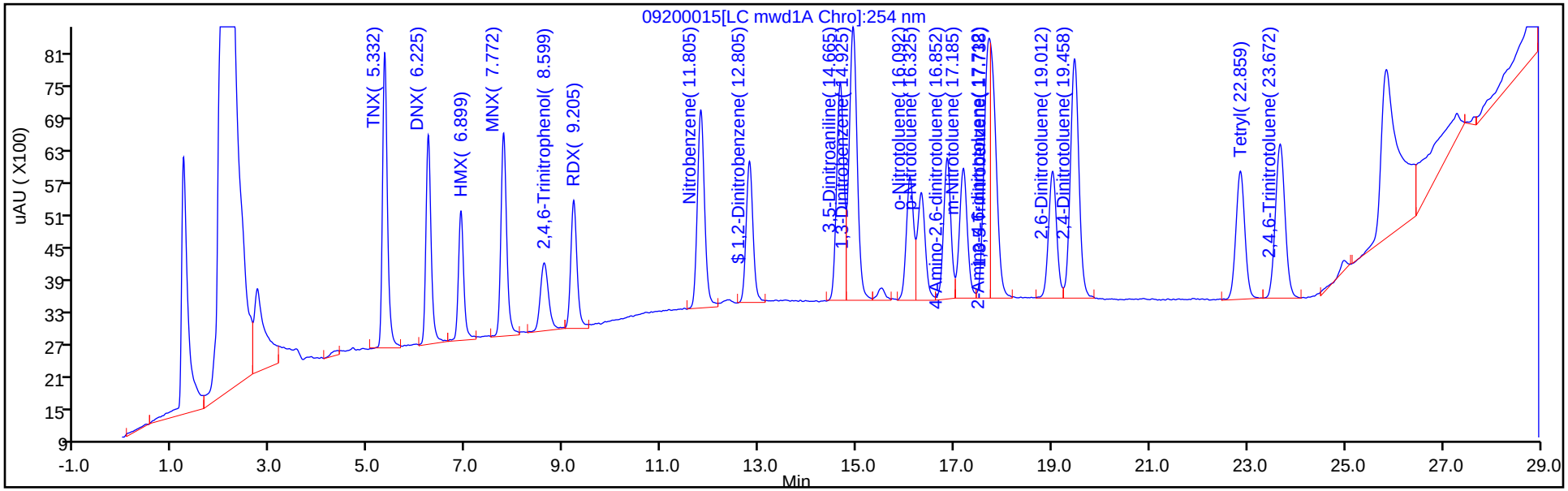
Report Date: 21-Sep-2023 16:09:16 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

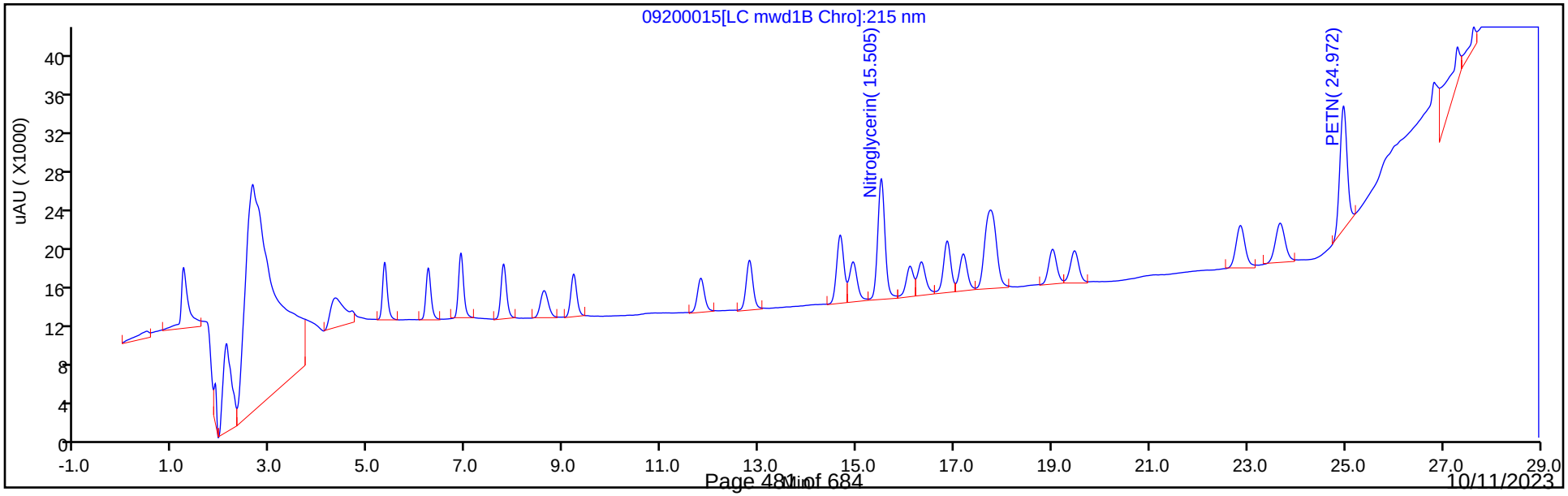
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D

Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

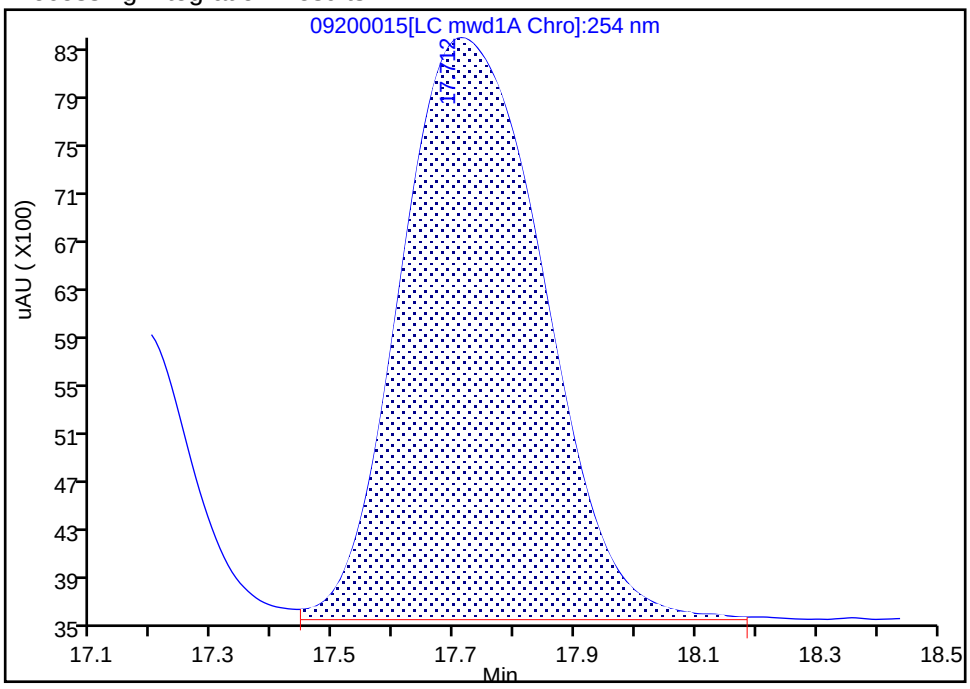
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Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

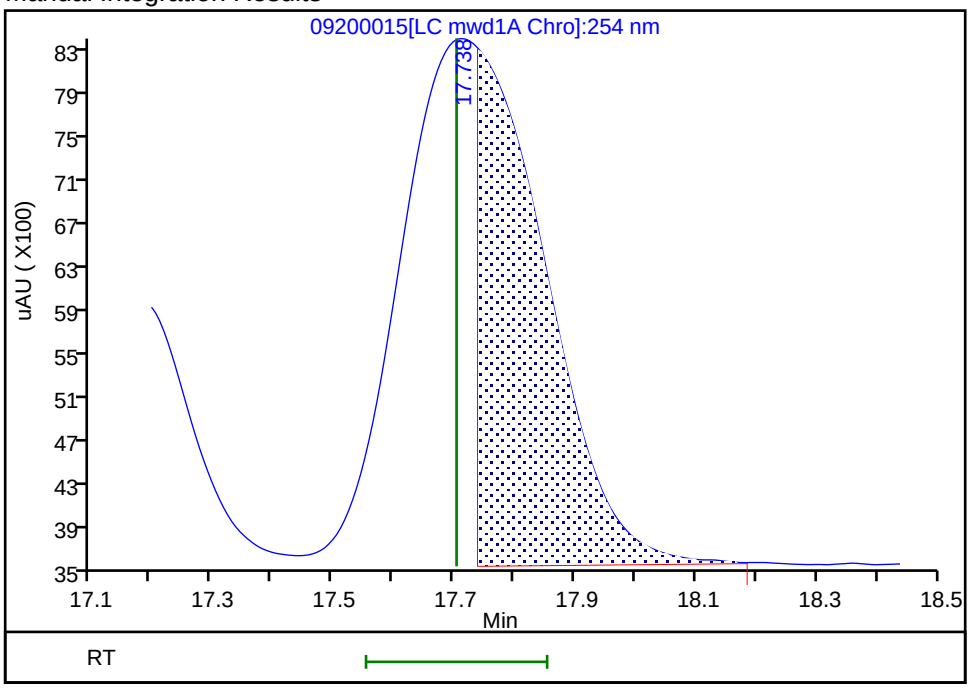
Processing Integration Results

RT: 17.71
Area: 79644
Amount: 0.139458
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 38099
Amount: 0.095539
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

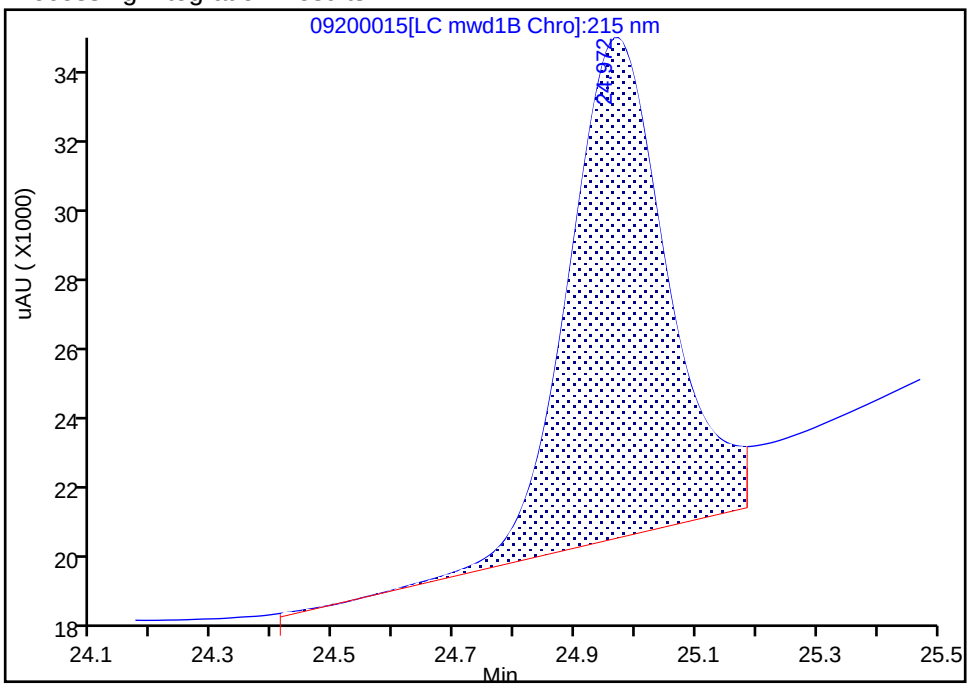
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D				
Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

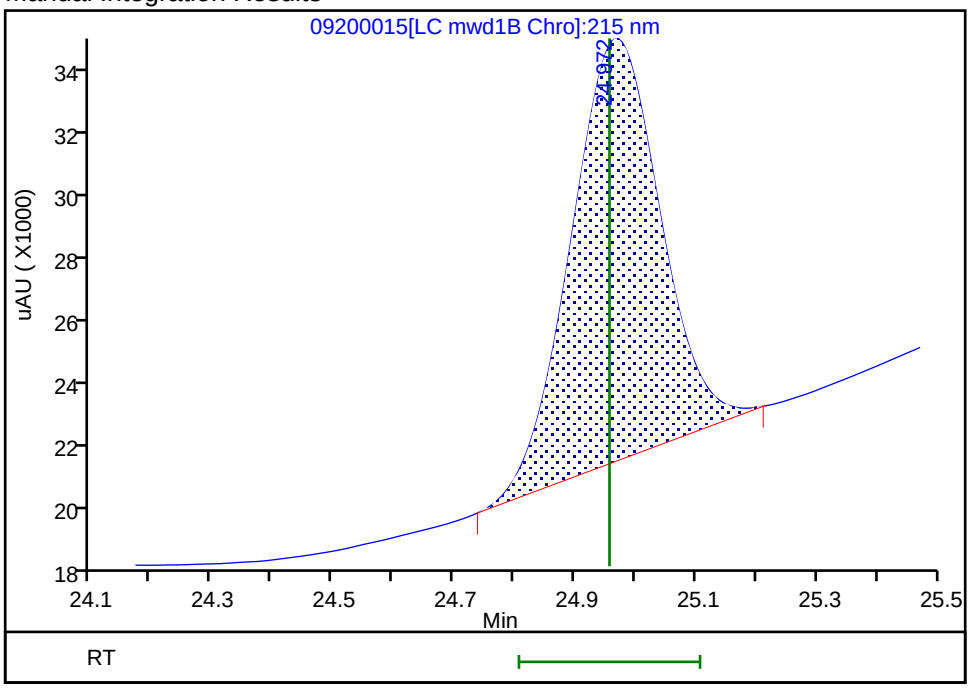
Processing Integration Results

RT: 24.97
Area: 156547
Amount: 1.157497
Amount Units: ug/ml



Manual Integration Results

RT: 24.97
Area: 131058
Amount: 1.003879
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:24 -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\20230920-125649.b\09200016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Sep-2023 23:30:44 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:16 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.337	5.324	0.013	19589	0.0502	0.0499	
4 DNX	1	6.224	6.211	0.013	14311	0.0501	0.0496	
5 HMX	1	6.897	6.877	0.020	10122	0.0500	0.0532	
6 MNX	1	7.777	7.751	0.026	15652	0.0584	0.0591	
7 2,4,6-Trinitrophenol	1	8.630	8.551	0.079	7857	0.0500	0.0533	
8 RDX	1	9.210	9.184	0.026	11669	0.0500	0.0529	
9 Nitrobenzene	1	11.810	11.790	0.020	19023	0.0500	0.0495	
$ 10 1,2-Dinitrobenzene	1	12.803	12.784	0.019	12869	0.0500	0.0482	
11 3,5-Dinitroaniline	1	14.670	14.644	0.026	21030	0.0500	0.0507	
12 1,3-Dinitrobenzene	1	14.930	14.904	0.026	29431	0.0500	0.0503	
13 Nitroglycerin	2	15.503	15.484	0.019	70087	0.5000	0.5456	
14 o-Nitrotoluene	1	16.097	16.070	0.027	12234	0.0500	0.0515	
16 p-Nitrotoluene	1	16.323	16.297	0.026	11398	0.0500	0.0533	
17 4-Amino-2,6-dinitrotoluene	1	16.857	16.830	0.027	13571	0.0500	0.0499	
18 m-Nitrotoluene	1	17.190	17.164	0.026	13737	0.0500	0.0508	
19 2-Amino-4,6-dinitrotoluene	1	17.717	17.690	0.027	18455	0.0500	0.0471	M
20 1,3,5-Trinitrobenzene	1	17.730	17.704	0.026	21215	0.0500	0.0532	M
21 2,6-Dinitrotoluene	1	19.023	18.990	0.033	13500	0.0500	0.0492	
22 2,4-Dinitrotoluene	1	19.477	19.444	0.033	26513	0.0500	0.0487	
23 Tetryl	1	22.890	22.837	0.053	15660	0.0500	0.0509	
24 2,4,6-Trinitrotoluene	1	23.697	23.657	0.040	19821	0.0500	0.0502	
25 PETN	2	24.997	24.957	0.040	64272	0.5000	0.5022	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	5.00	Units: uL
8330 DMT_00015	Amount Added:	2.50	Units: uL

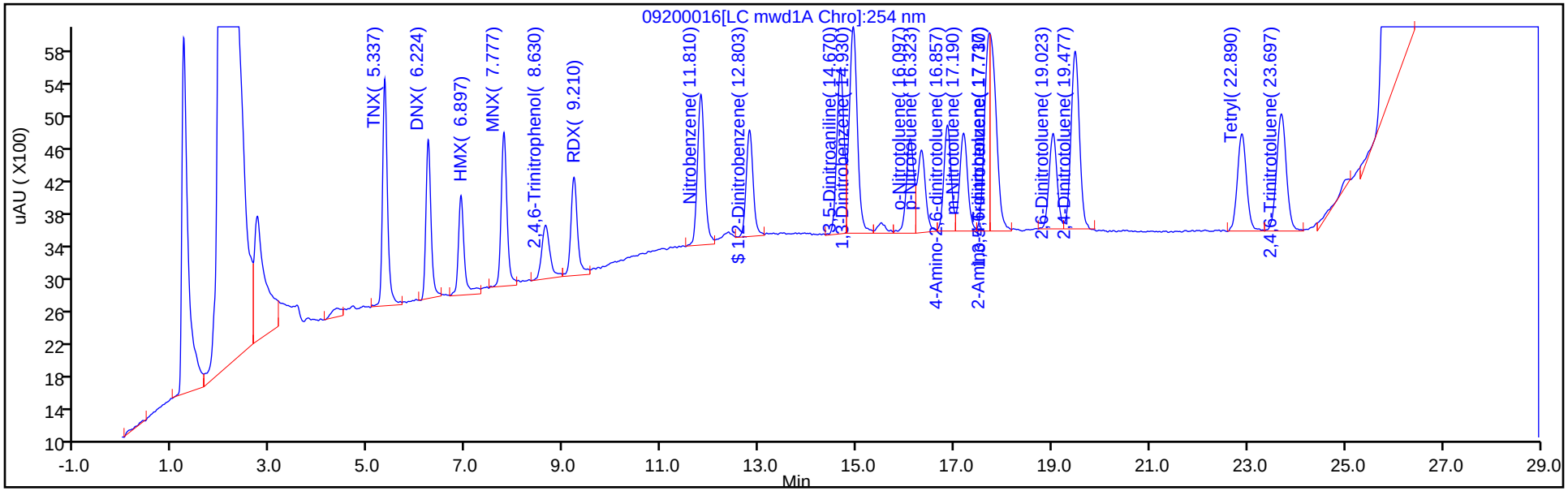
Report Date: 21-Sep-2023 16:09:16 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

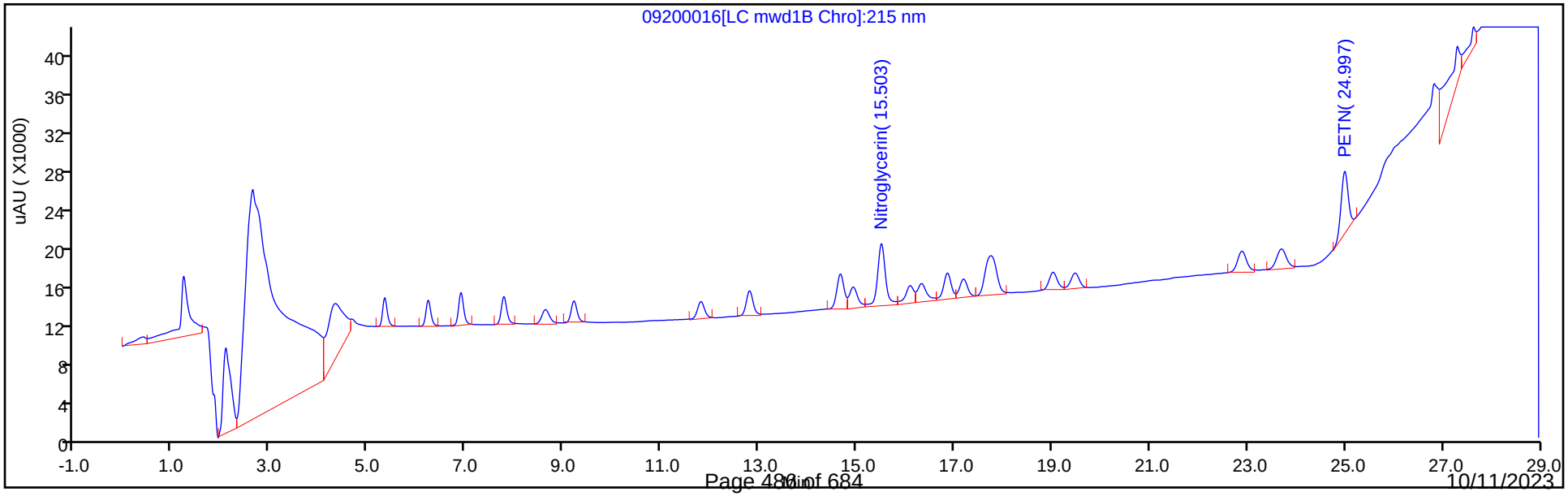
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D

Injection Date:	20-Sep-2023 23:30:44	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

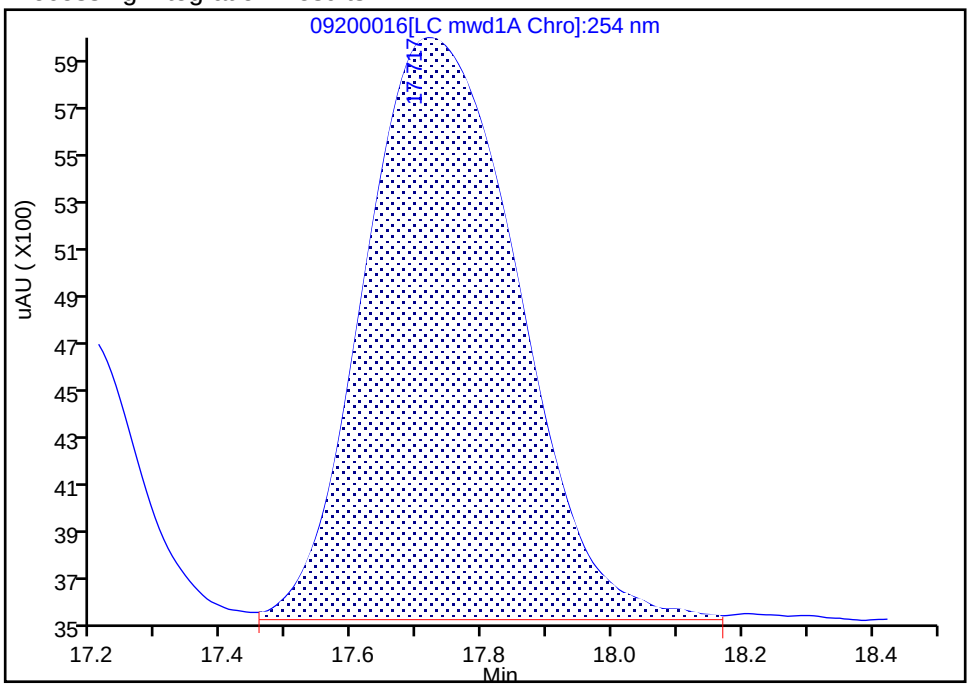
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D				
Injection Date:	20-Sep-2023 23:30:44	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

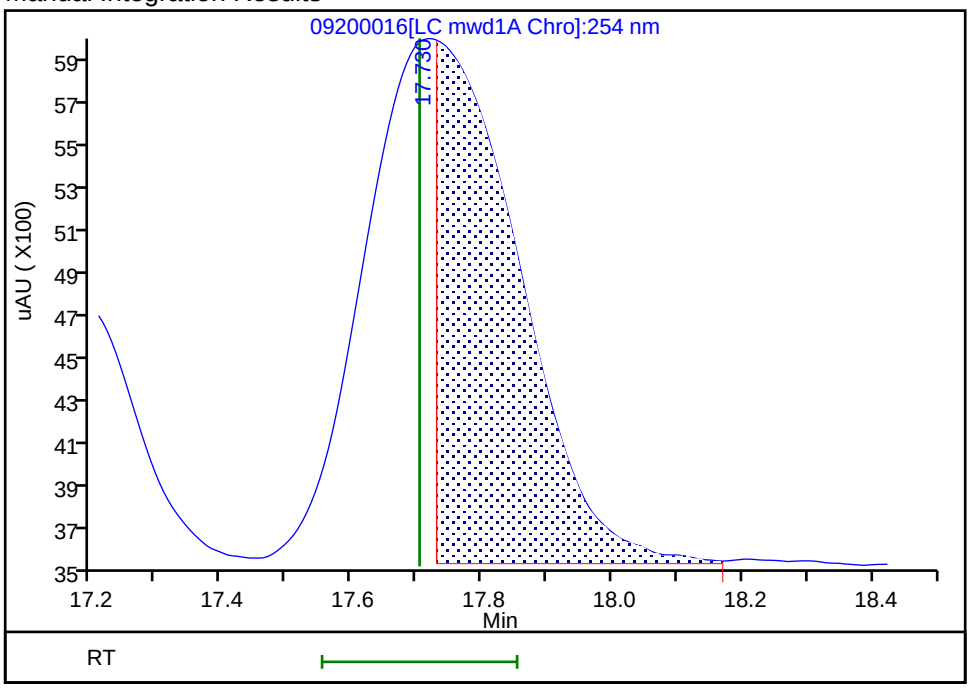
Processing Integration Results

RT: 17.72
Area: 39664
Amount: 0.075560
Amount Units: ug/ml



Manual Integration Results

RT: 17.73
Area: 21215
Amount: 0.053200
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:06 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

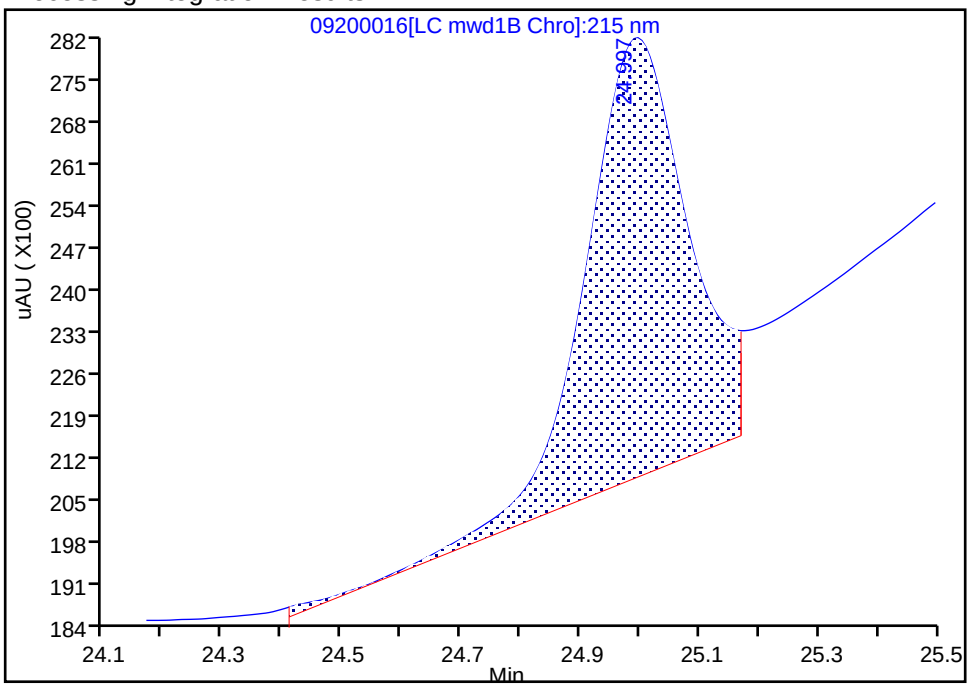
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D				
Injection Date:	20-Sep-2023 23:30:44	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

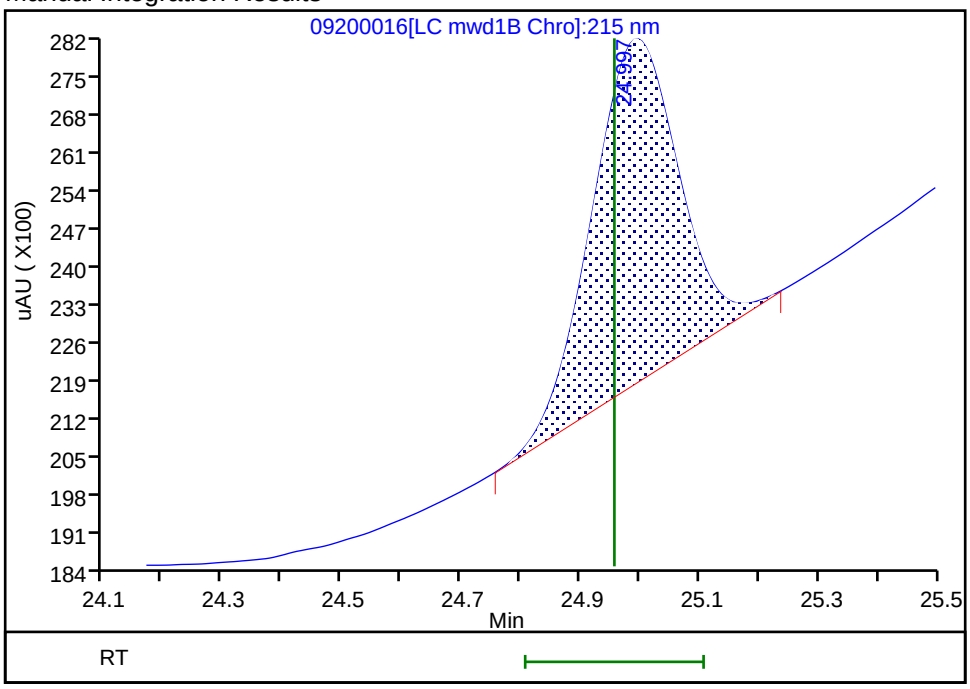
Processing Integration Results

RT: 25.00
Area: 87469
Amount: 0.622994
Amount Units: ug/ml



Manual Integration Results

RT: 25.00
Area: 64272
Amount: 0.502246
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:20 -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\20230920-125649.b\09200017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Sep-2023 00:05:41 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:17 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.332	5.324	0.008	8166	0.0201	0.0208	
4 DNX	1	6.225	6.211	0.014	5577	0.0200	0.0193	
5 HMX	1	6.899	6.877	0.022	4021	0.0200	0.0212	
6 MNX	1	7.779	7.751	0.028	6284	0.0233	0.0237	
7 2,4,6-Trinitrophenol	1	8.645	8.551	0.094	3147	0.0200	0.0222	
8 RDX	1	9.212	9.184	0.028	4787	0.0200	0.0217	
9 Nitrobenzene	1	11.812	11.790	0.022	7865	0.0200	0.0205	
$ 10 1,2-Dinitrobenzene	1	12.812	12.784	0.028	6087	0.0200	0.0228	
11 3,5-Dinitroaniline	1	14.665	14.644	0.021	8469	0.0200	0.0203	
12 1,3-Dinitrobenzene	1	14.925	14.904	0.021	11517	0.0200	0.0197	
13 Nitroglycerin	2	15.505	15.484	0.021	25216	0.2000	0.1963	
14 o-Nitrotoluene	1	16.085	16.070	0.015	4996	0.0200	0.0210	
16 p-Nitrotoluene	1	16.325	16.297	0.028	4349	0.0200	0.0203	
17 4-Amino-2,6-dinitrotoluene	1	16.852	16.830	0.022	5544	0.0200	0.0204	
18 m-Nitrotoluene	1	17.179	17.164	0.015	5268	0.0200	0.0195	
19 2-Amino-4,6-dinitrotoluene	1	17.712	17.690	0.022	7537	0.0200	0.0192	M
20 1,3,5-Trinitrobenzene	1	17.732	17.704	0.028	8026	0.0200	0.0201	M
21 2,6-Dinitrotoluene	1	19.019	18.990	0.029	5759	0.0200	0.0210	
22 2,4-Dinitrotoluene	1	19.465	19.444	0.021	11205	0.0200	0.0206	
23 Tetryl	1	22.879	22.837	0.042	6238	0.0200	0.0203	
24 2,4,6-Trinitrotoluene	1	23.685	23.657	0.028	7880	0.0200	0.0200	
25 PETN	2	24.992	24.957	0.035	23524	0.2000	0.1962	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	2.00	Units: uL
8330 DMT_00015	Amount Added:	1.00	Units: uL

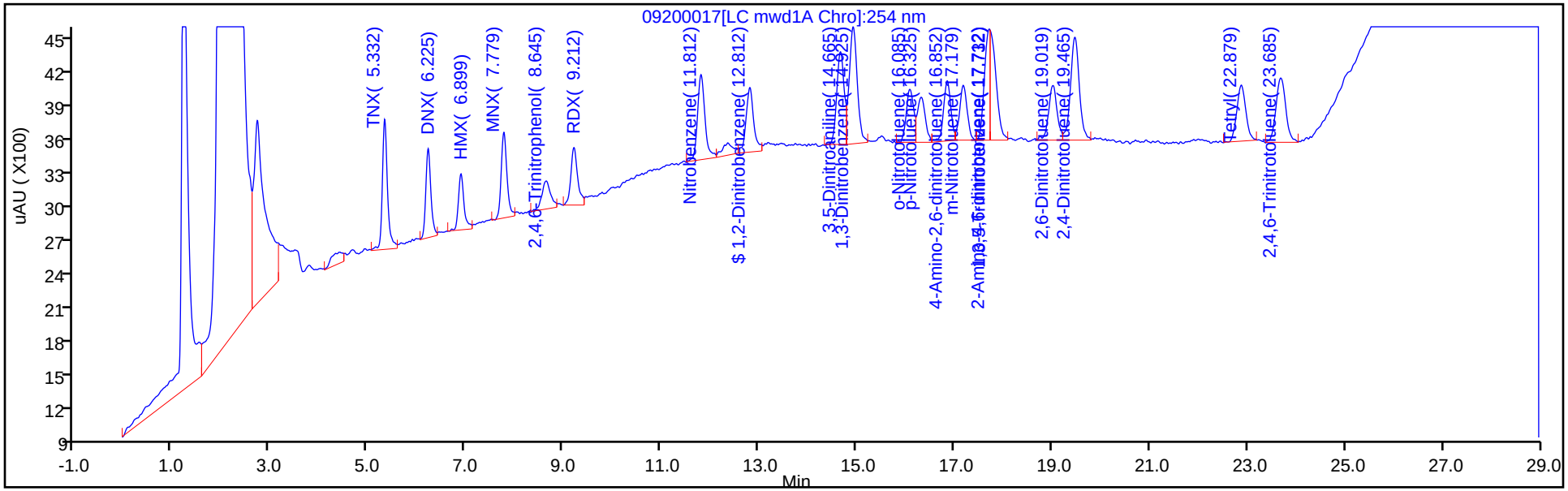
Report Date: 21-Sep-2023 16:09:17 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

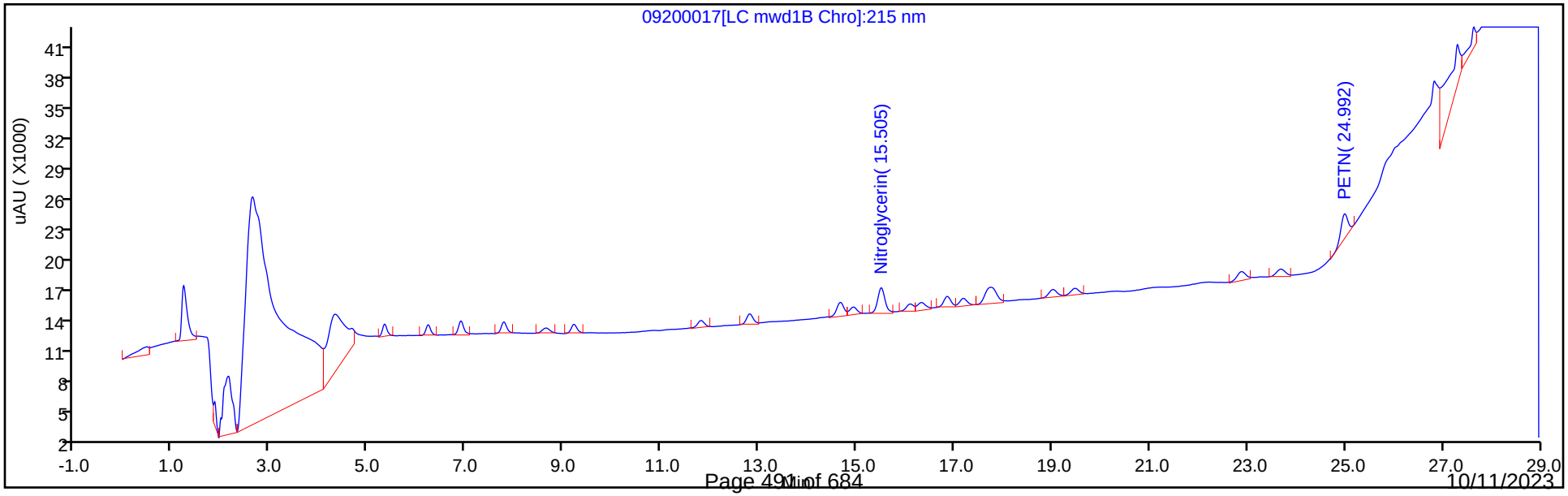
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D

Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

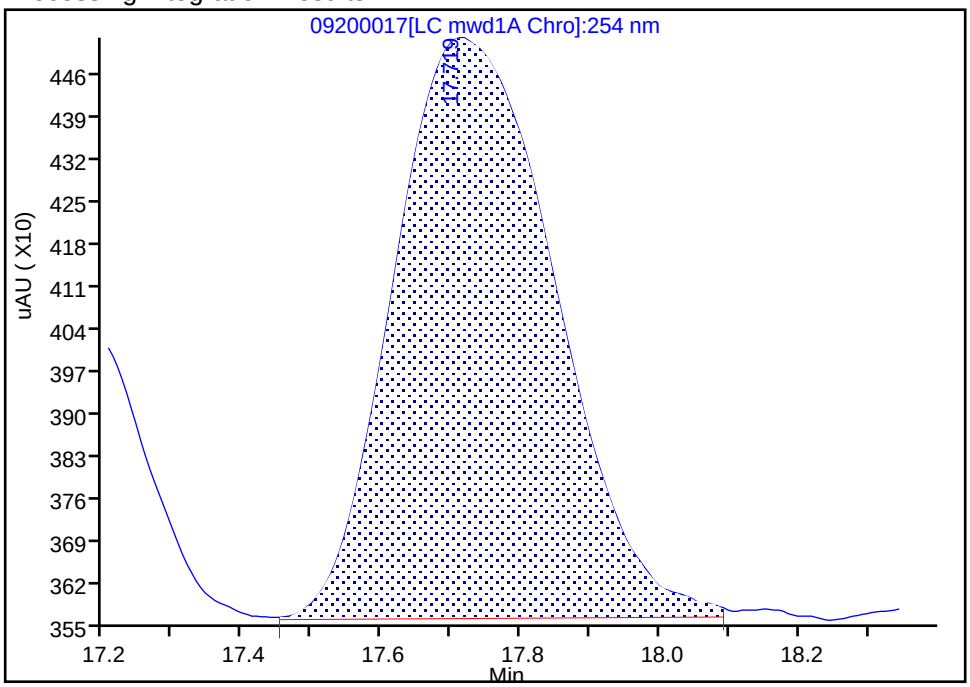
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D				
Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

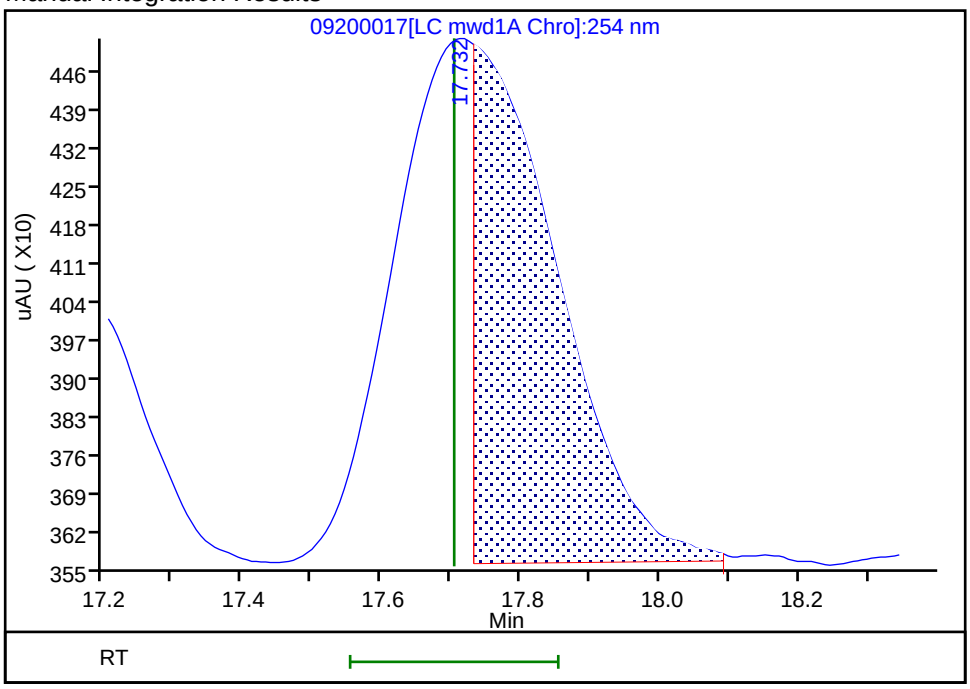
Processing Integration Results

RT: 17.72
Area: 15562
Amount: 0.027985
Amount Units: ug/ml



Manual Integration Results

RT: 17.73
Area: 8026
Amount: 0.020126
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:17 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

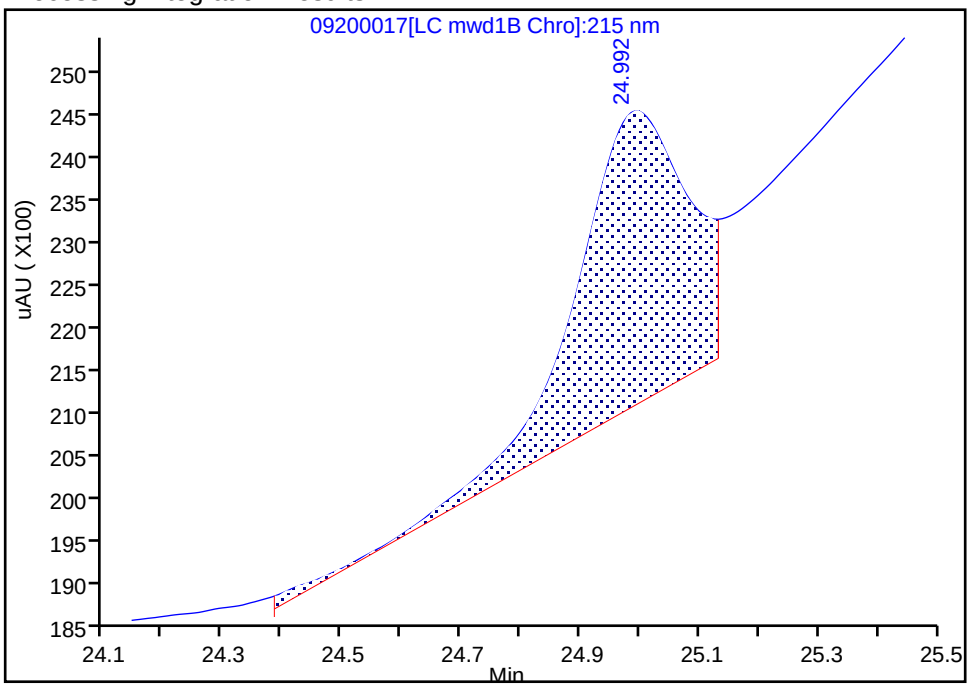
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D				
Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

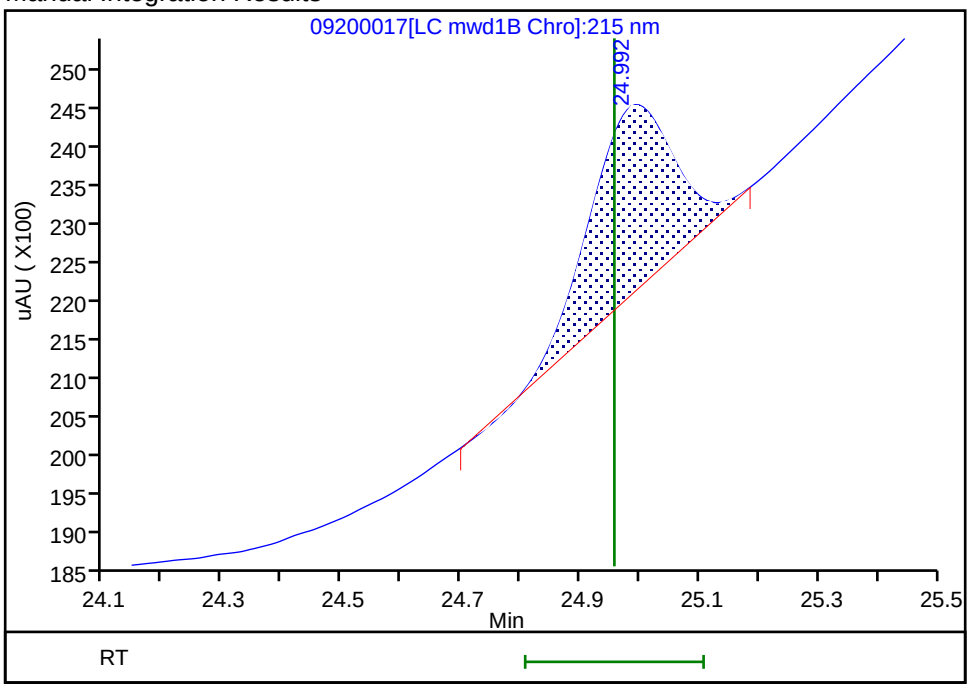
Processing Integration Results

RT: 24.99
Area: 44965
Amount: 0.276574
Amount Units: ug/ml



Manual Integration Results

RT: 24.99
Area: 23524
Amount: 0.196186
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:16 -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\20230920-125649.b\09200018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Sep-2023 00:40:35 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:17 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.337	5.324	0.013	4274	0.0100	0.0109	
4 DNX	1	6.224	6.211	0.013	3185	0.0100	0.0110	
5 HMX	1	6.890	6.877	0.013	2354	0.0100	0.0124	
6 MNX	1	7.777	7.751	0.026	3205	0.0117	0.0121	
7 2,4,6-Trinitrophenol	1	8.644	8.551	0.093	1198	0.0100	0.009326	M
8 RDX	1	9.217	9.184	0.033	2784	0.0100	0.0126	
9 Nitrobenzene	1	11.817	11.790	0.027	4374	0.0100	0.0114	
$ 10 1,2-Dinitrobenzene	1	12.797	12.784	0.013	3100	0.0100	0.0116	
11 3,5-Dinitroaniline	1	14.650	14.644	0.006	4155	0.0100	0.009883	
12 1,3-Dinitrobenzene	1	14.923	14.904	0.019	5958	0.0100	0.0102	
13 Nitroglycerin	2	15.497	15.484	0.013	13016	0.1000	0.1013	
14 o-Nitrotoluene	1	16.097	16.070	0.027	2442	0.0100	0.0103	M
16 p-Nitrotoluene	1	16.323	16.297	0.026	1802	0.0100	0.008431	M
17 4-Amino-2,6-dinitrotoluene	1	16.857	16.830	0.027	2844	0.0100	0.0105	
18 m-Nitrotoluene	1	17.177	17.164	0.013	2758	0.0100	0.0102	
19 2-Amino-4,6-dinitrotoluene	1	17.730	17.690	0.040	3899	0.0100	0.0100	M
20 1,3,5-Trinitrobenzene	1	17.737	17.704	0.033	4118	0.0100	0.0103	M
21 2,6-Dinitrotoluene	1	19.023	18.990	0.033	3091	0.0100	0.0113	
22 2,4-Dinitrotoluene	1	19.463	19.444	0.019	5602	0.0100	0.0103	
23 Tetryl	1	22.884	22.837	0.047	3199	0.0100	0.0104	
24 2,4,6-Trinitrotoluene	1	23.684	23.657	0.027	3814	0.0100	0.009658	
25 PETN	2	25.010	24.957	0.053	10832	0.1000	0.1009	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	1.00	Units: uL
8330 DMT_00015	Amount Added:	0.50	Units: uL

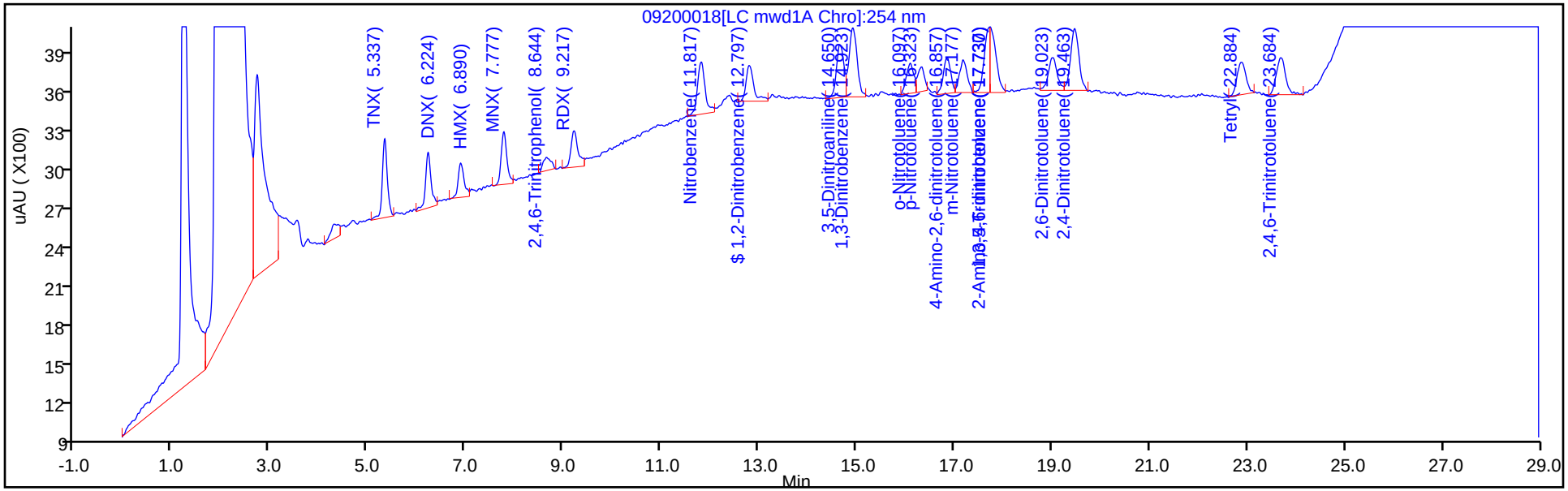
Report Date: 21-Sep-2023 16:09:17 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

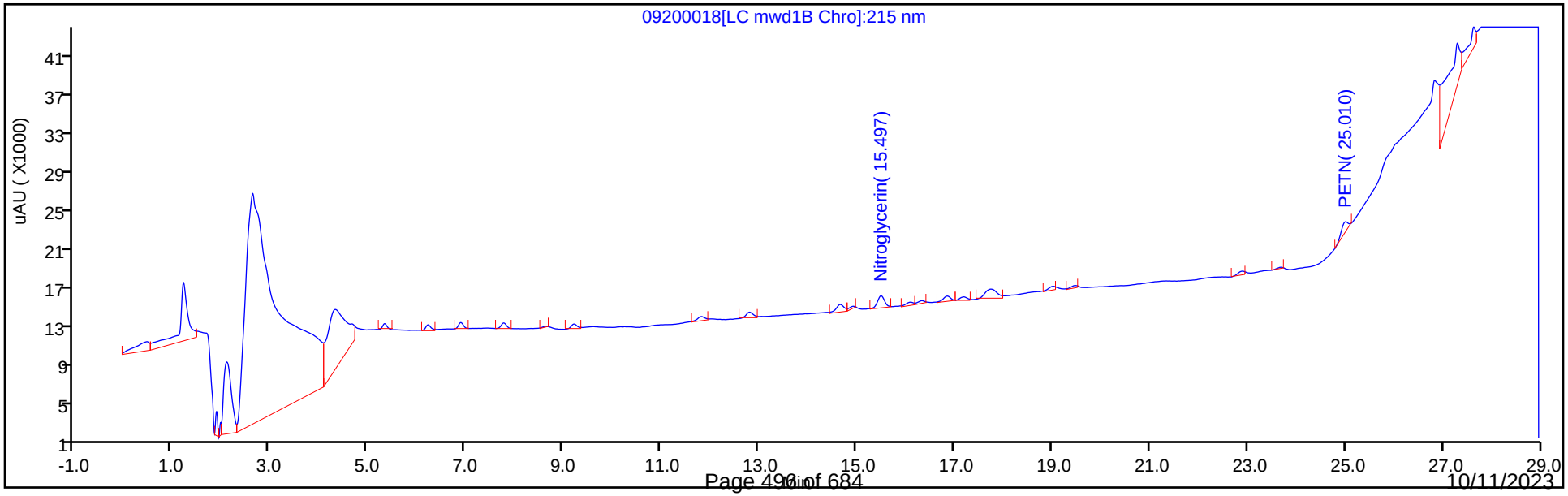
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D

Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

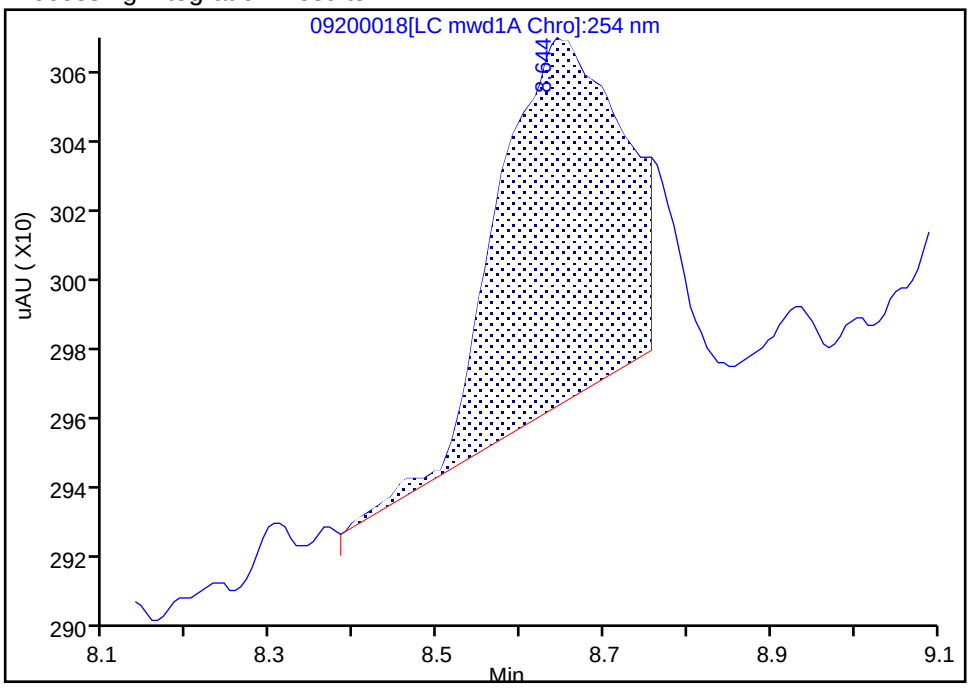
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Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

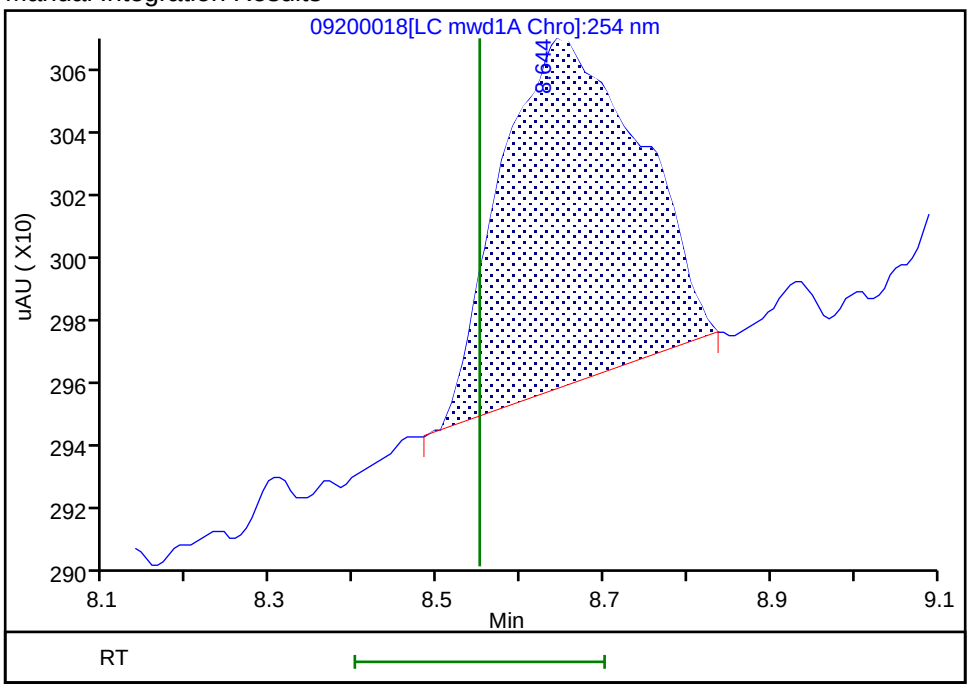
Processing Integration Results

RT: 8.64
Area: 1007
Amount: 0.007073
Amount Units: ug/ml



Manual Integration Results

RT: 8.64
Area: 1198
Amount: 0.009326
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:47 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

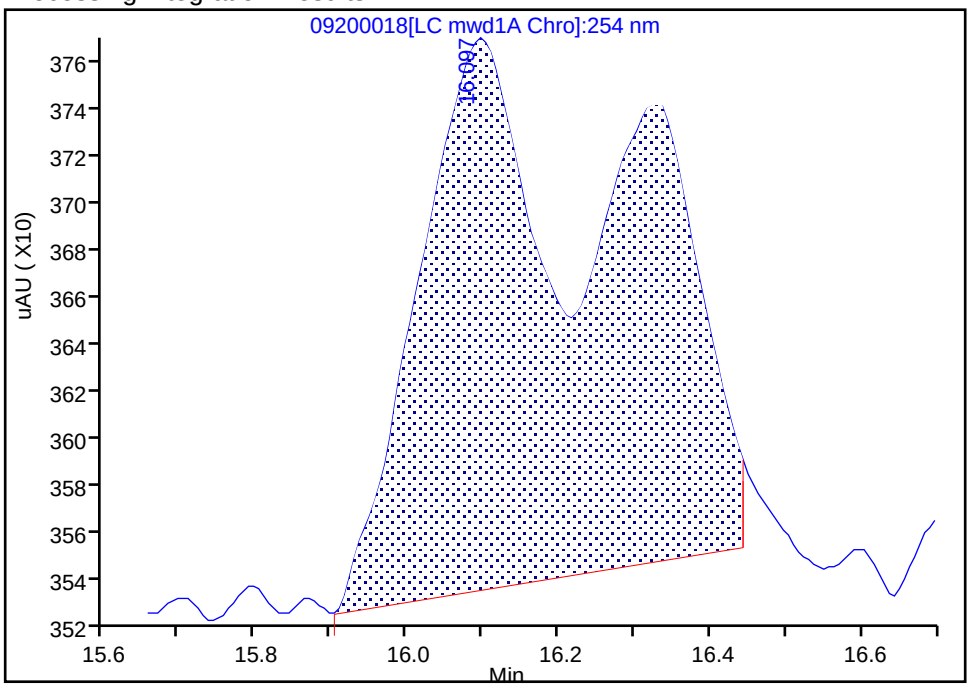
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

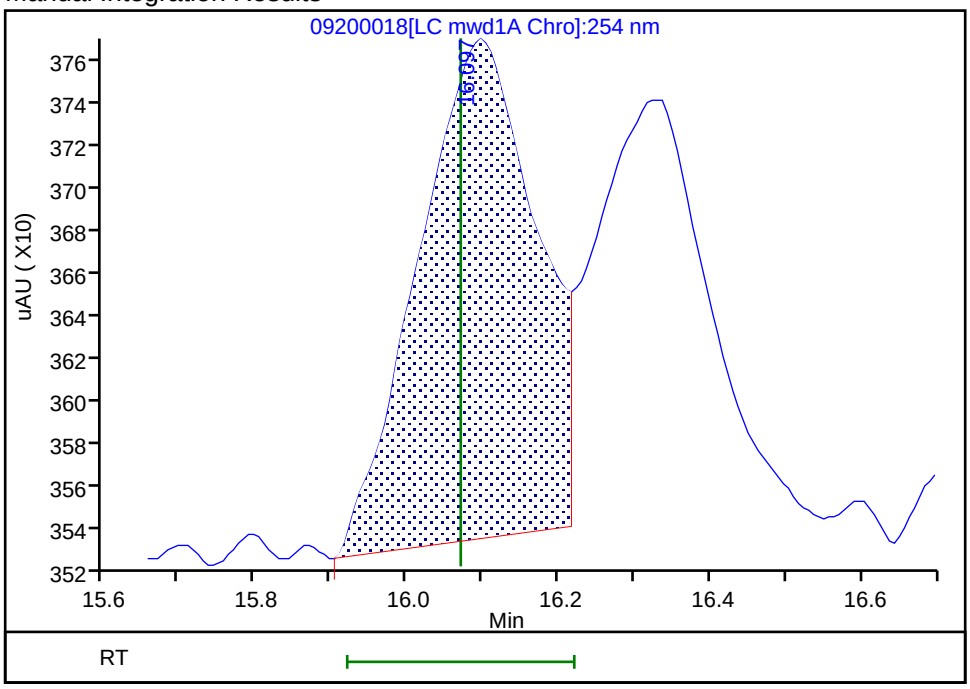
Processing Integration Results

RT: 16.10
Area: 4234
Amount: 0.012292
Amount Units: ug/ml



Manual Integration Results

RT: 16.10
Area: 2442
Amount: 0.010278
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

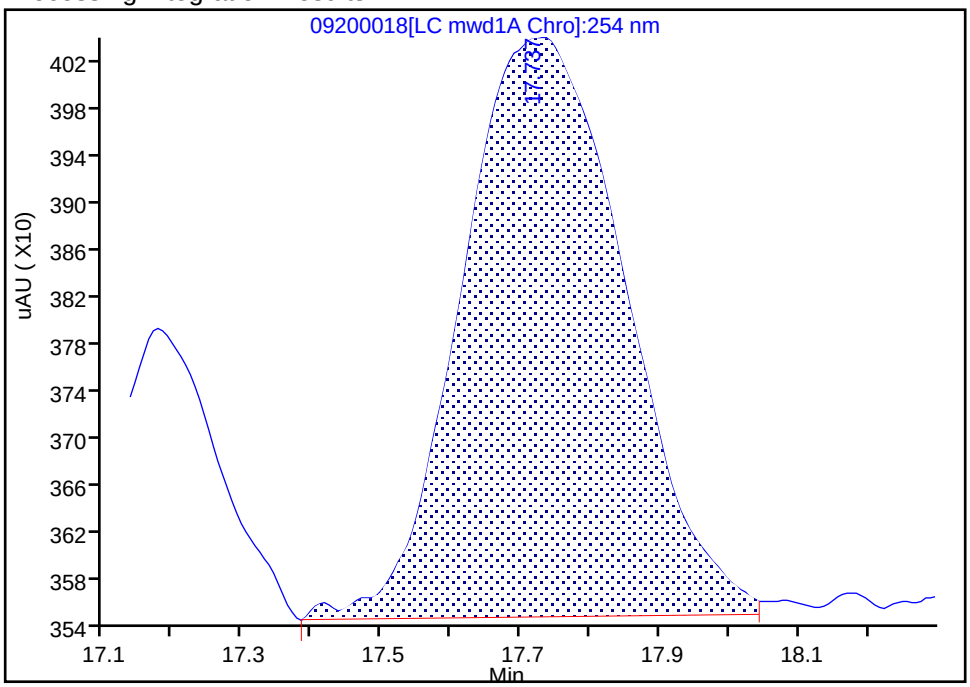
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Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

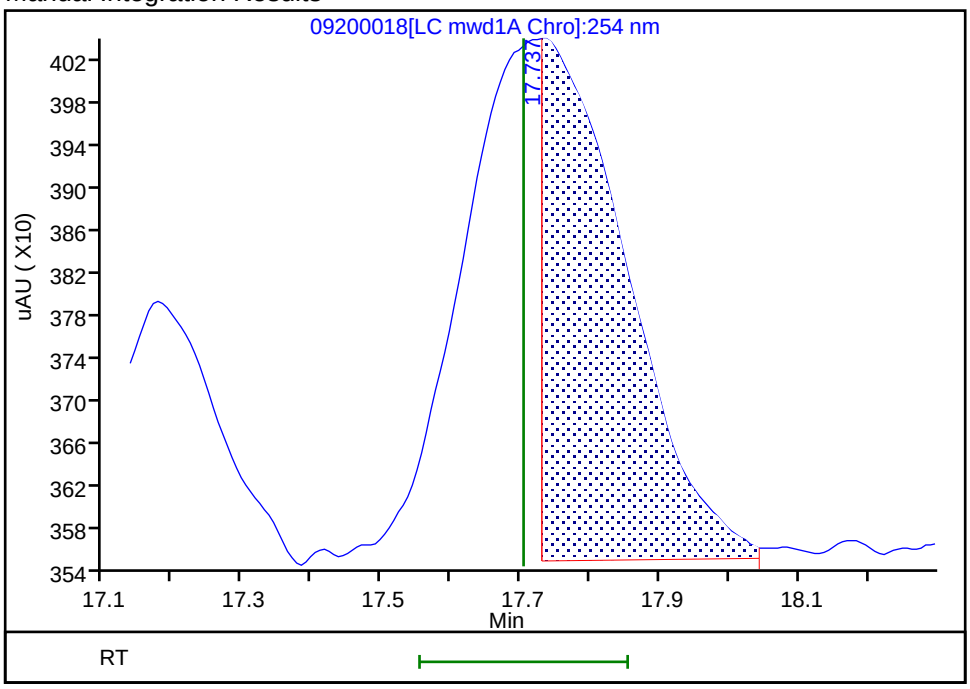
Processing Integration Results

RT: 17.74
Area: 8014
Amount: 0.013587
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 4118
Amount: 0.010326
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:30 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

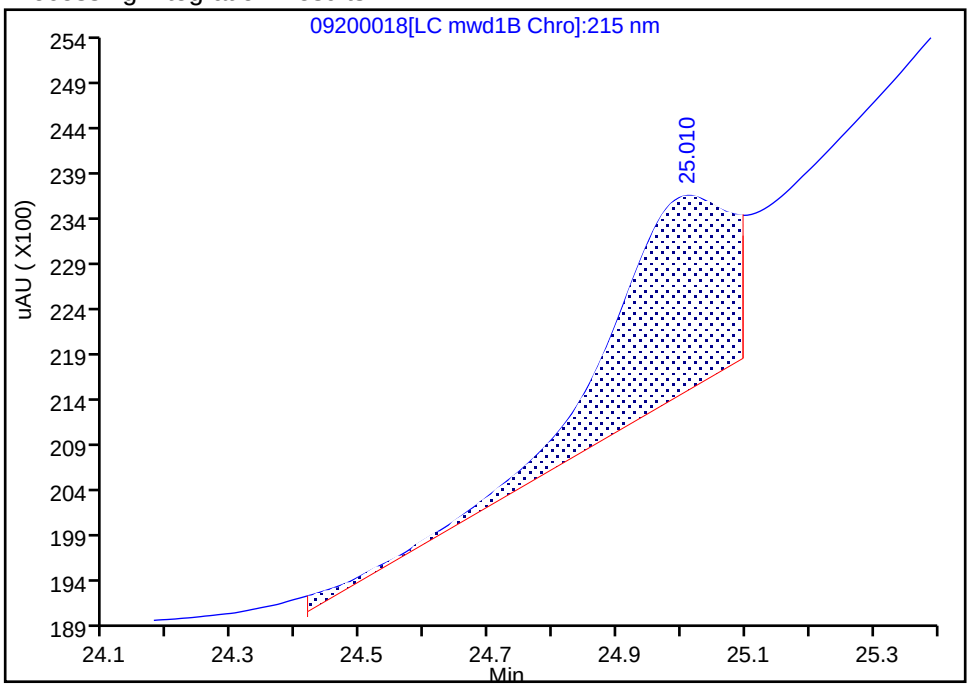
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

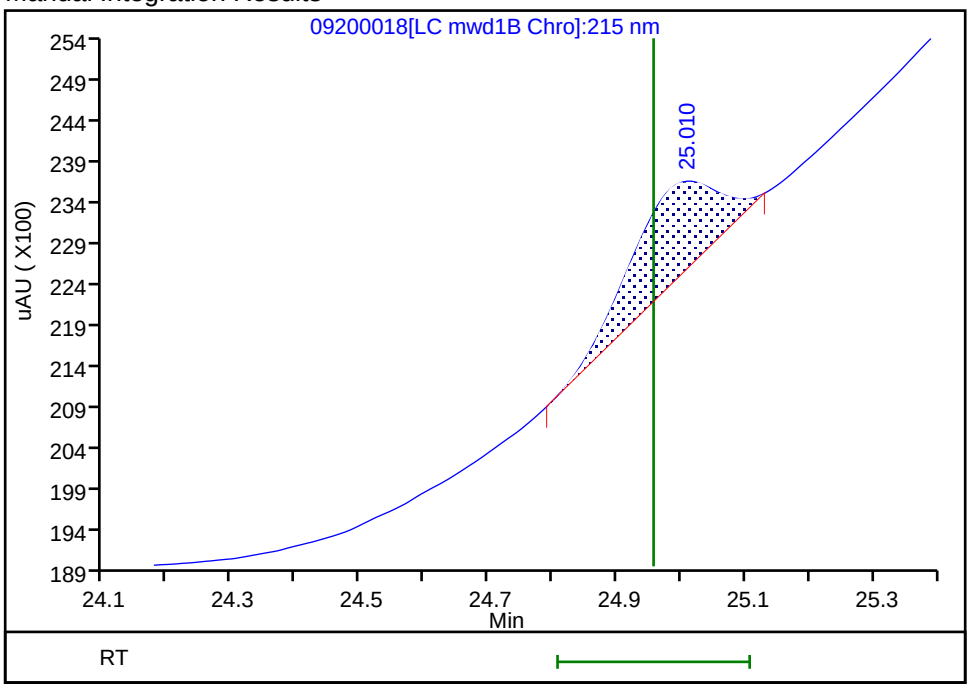
Processing Integration Results

RT: 25.01
Area: 28300
Amount: 0.095720
Amount Units: ug/ml



Manual Integration Results

RT: 25.01
Area: 10832
Amount: 0.100855
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-181950-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 | Calibration End Date: 09/21/2023 05:55 | Calibration ID: 84767

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	4.262	4.249	4.245	4.246	4.237	4.240	4.239			4.096 - 4.396	4.245
2,4-diamino-6-nitrotoluene	+++++	4.855	4.869	4.865	4.866	4.864	4.866	4.879			4.716 - 5.016	4.866

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-181950-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 Calibration End Date: 09/21/2023 05:55 Calibration ID: 84767

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.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 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 385363	535900 394247	415590 389884	391760 393237	Lin2	5943.08843	377504.603							0.9980		0.9900
2,4-diamino-6-nitrotoluene	+++++ 239948	354850 247390	267940 246270	245540 239736	Lin2	4610.22349	233901.326							0.9980		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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-181950-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 | Calibration End Date: 09/21/2023 05:55 | Calibration ID: 84767

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin2	+++++ 275973	21436 389884	41559 983093	97940	154145	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Lin2	+++++ 173173	14194 246270	26794 599341	61385	95979	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200020.D				
Lims ID:	IC ADD 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	21-Sep-2023 01:50:28	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 8				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:18	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.239	4.246	-0.007	983093	2.50	2.59	
2 2,4-diamino-6-nitrotoluene	1	4.879	4.866	0.013	599341	2.50	2.54	

Reagents:

8330_ADDs_00037 Amount Added: 125.00 Units: uL

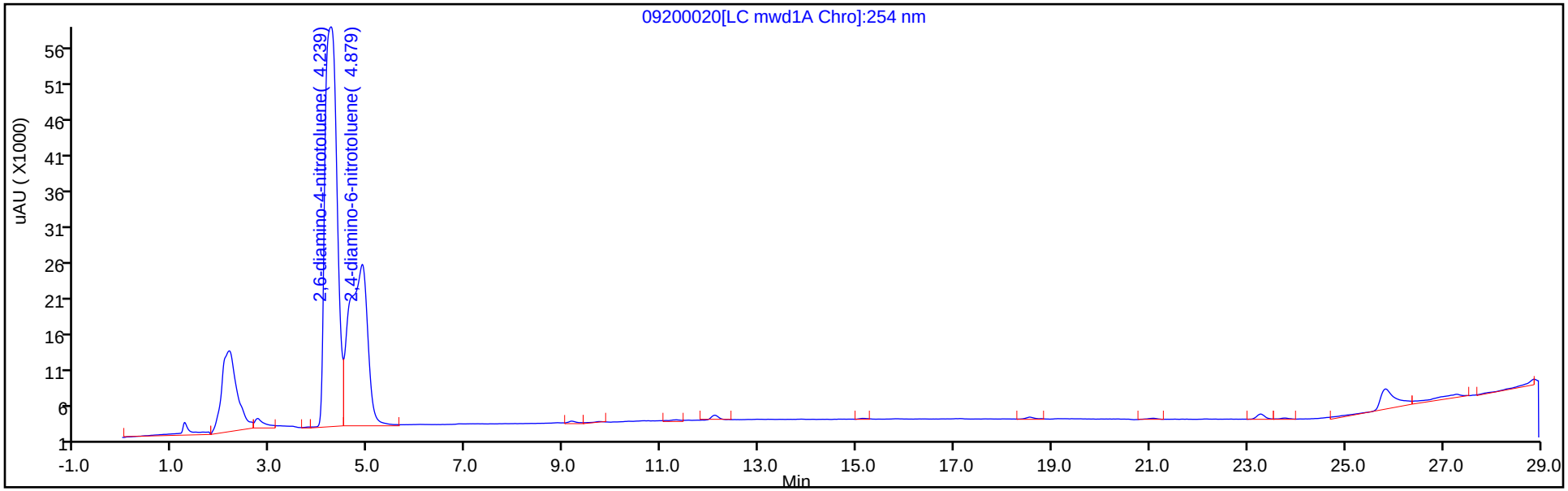
Report Date: 21-Sep-2023 16:09:18 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

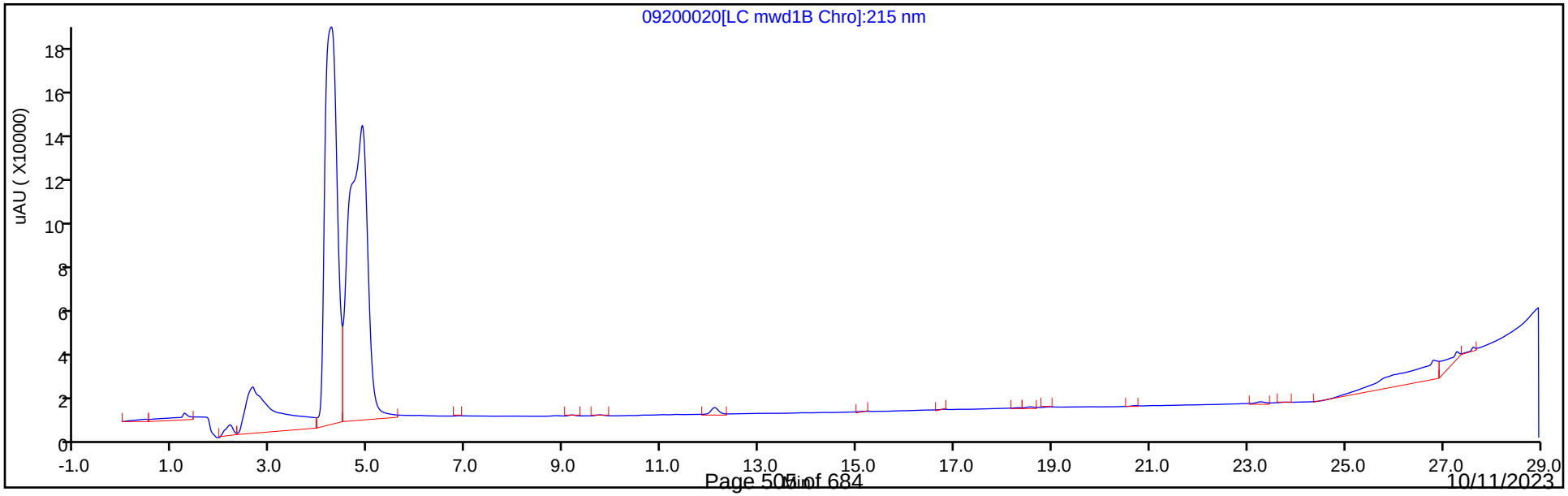
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Injection Date:	21-Sep-2023 01:50:28	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200021.D				
Lims ID:	IC ADD 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	21-Sep-2023 02:25:27	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 7				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:18	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.240	4.246	-0.006	389884	1.00	1.02	
2 2,4-diamino-6-nitrotoluene	1	4.866	4.866	0.000	246270	1.00	1.03	

Reagents:

8330_ADDs_00037 Amount Added: 50.00 Units: uL

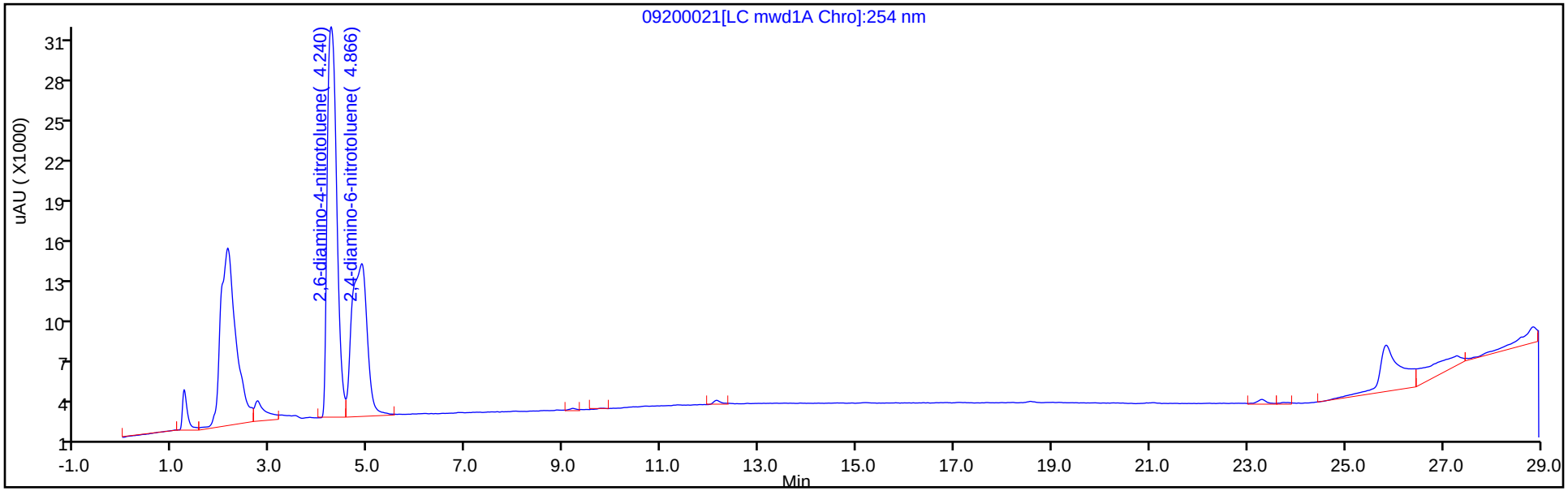
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

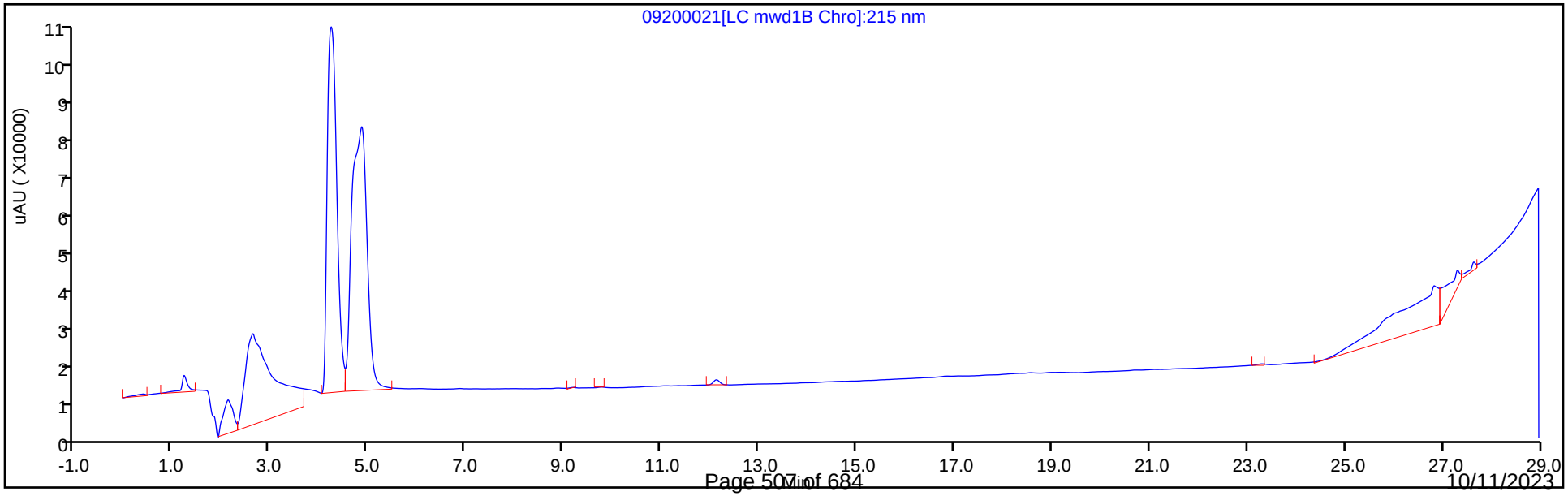
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Injection Date:	21-Sep-2023 02:25:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200022.D
Lims ID: IC ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Sep-2023 03:00:51 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:19 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.237	4.246	-0.009	275973	0.7000	0.7153	
2 2,4-diamino-6-nitrotoluene	1	4.864	4.866	-0.002	173173	0.7000	0.7207	

Reagents:

8330_ADDs_00037 Amount Added: 35.00 Units: uL

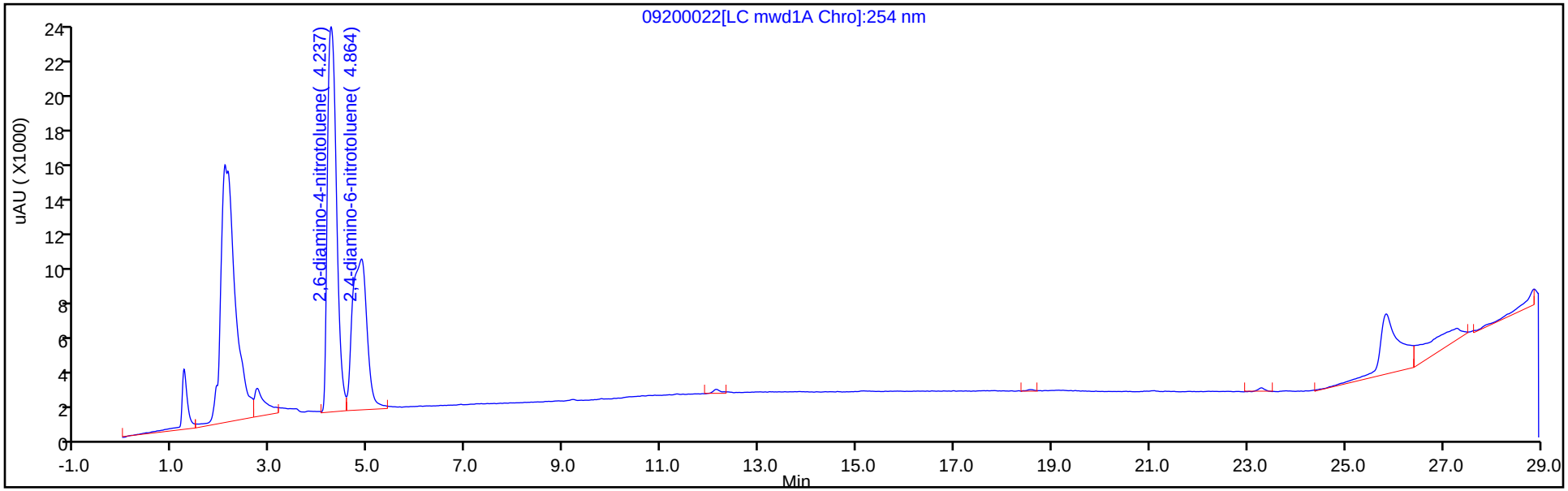
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

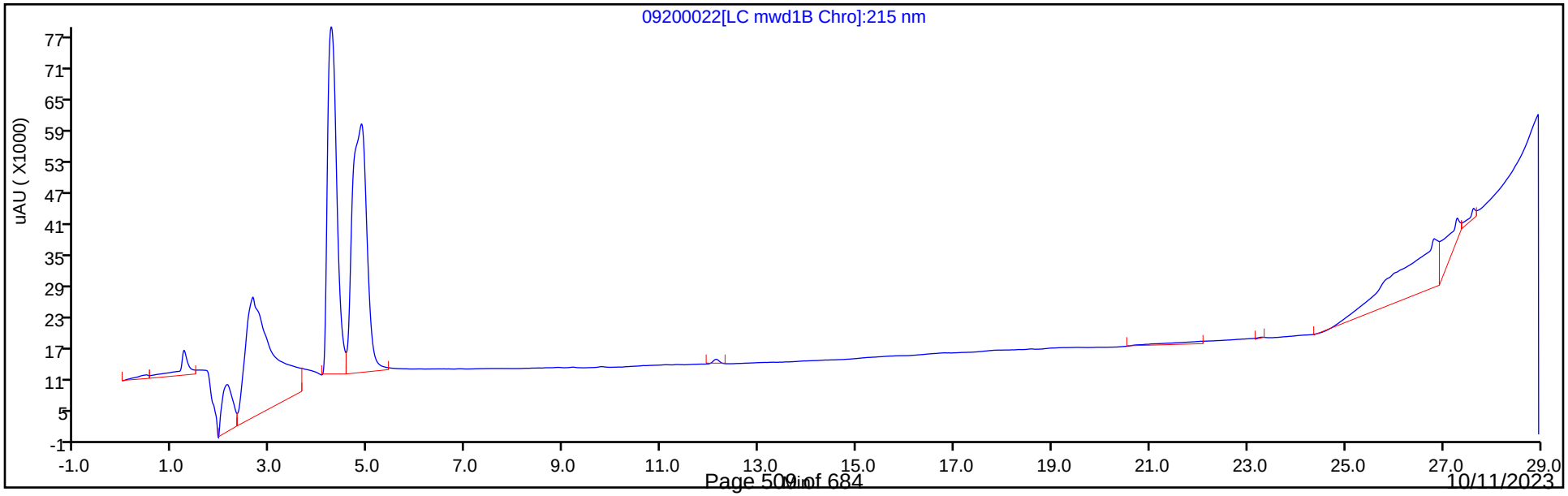
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200022.D

Injection Date:	21-Sep-2023 03:00:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	22
Client ID:					
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
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200023.D				
Lims ID:	IC ADD 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	21-Sep-2023 03:35:51	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 5				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:19	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.246	4.246	0.000	154145	0.4000	0.3926	
2 2,4-diamino-6-nitrotoluene	1	4.866	4.866	0.000	95979	0.4000	0.3906	

Reagents:

8330_ADDs_00037 Amount Added: 20.00 Units: uL

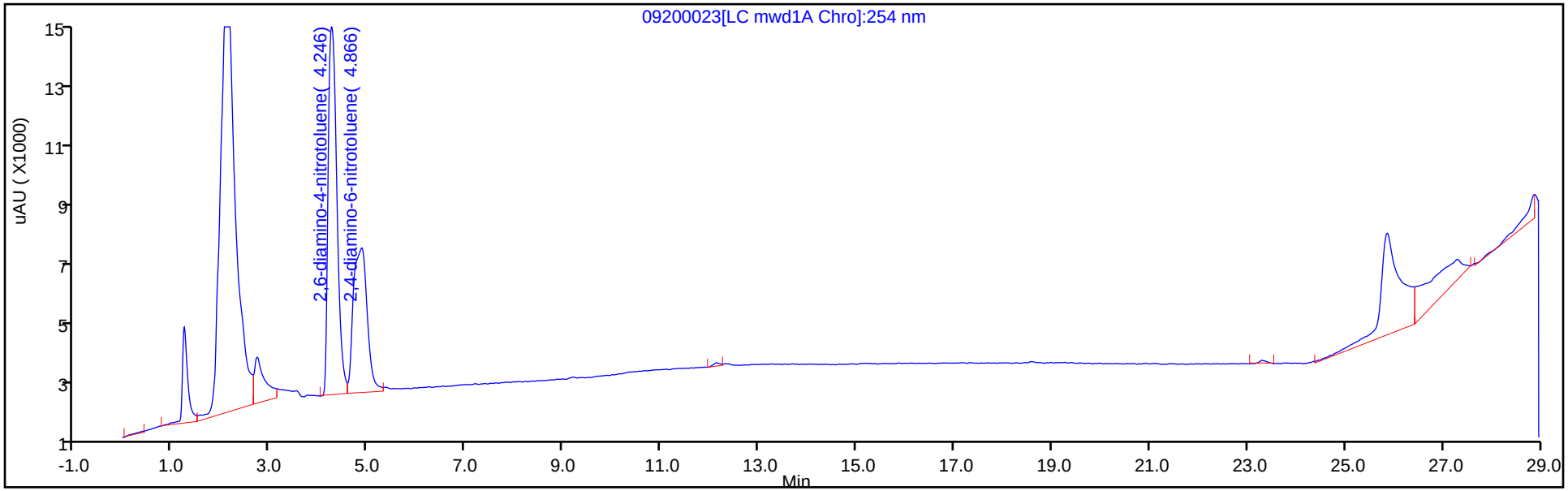
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

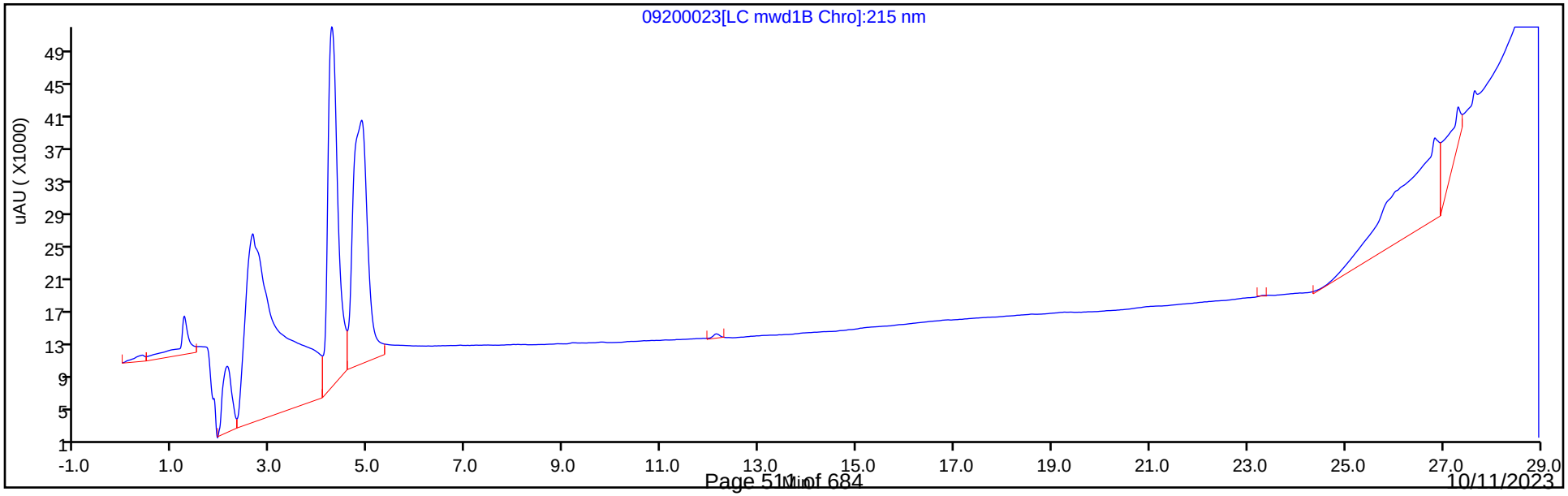
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200023.D

Injection Date:	21-Sep-2023 03:35:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	23
Client ID:					
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
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200024.D
Lims ID: IC ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Sep-2023 04:10:46 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:20 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.245	4.246	-0.001	97940	0.2500	0.2437	
2 2,4-diamino-6-nitrotoluene	1	4.865	4.866	-0.001	61385	0.2500	0.2427	

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

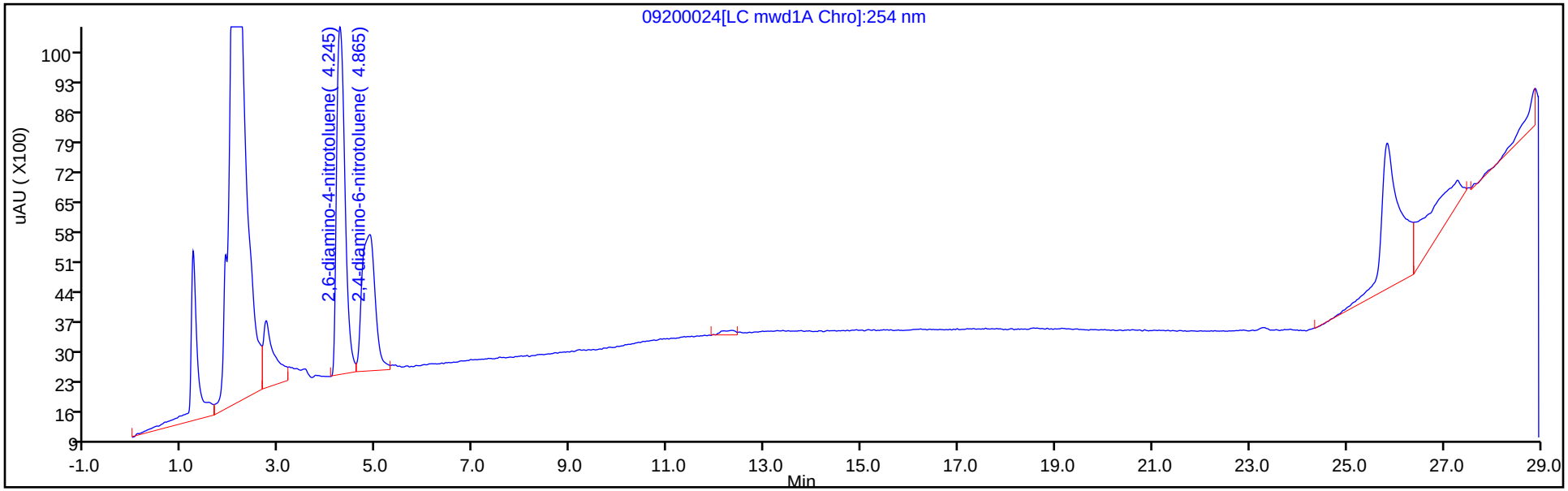
Report Date: 21-Sep-2023 16:09:20 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

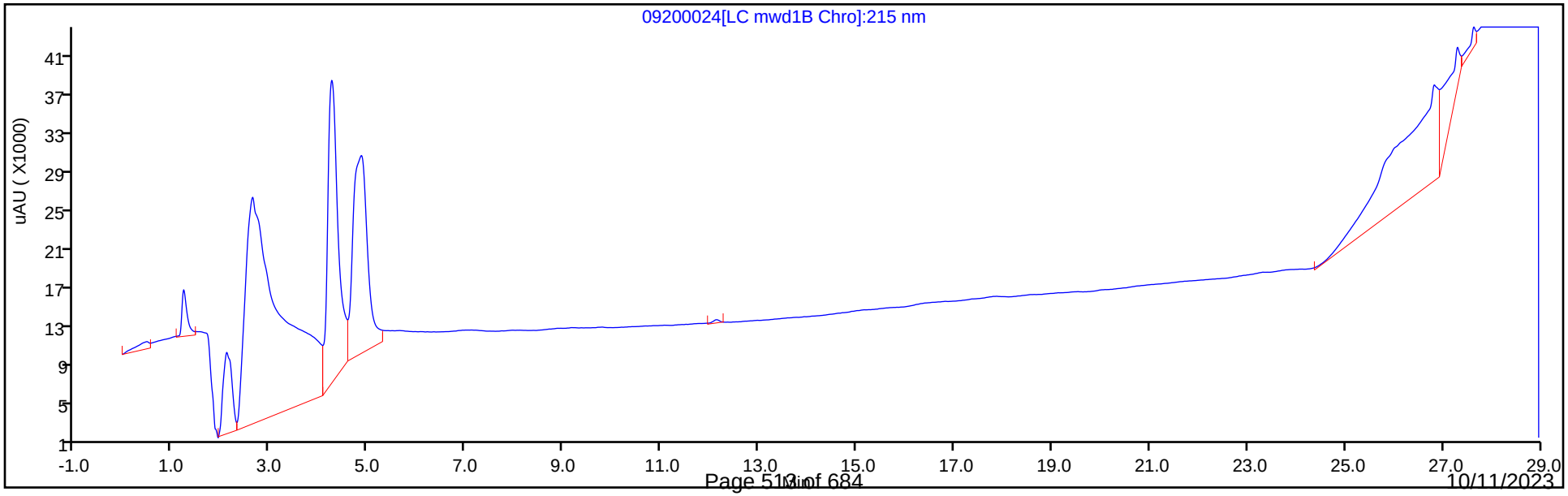
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200024.D

Injection Date:	21-Sep-2023 04:10:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
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
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200025.D				
Lims ID:	IC ADD 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	21-Sep-2023 04:45:42	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 3				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:20	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.249	4.246	0.003	41559	0.1000	0.0943	
2 2,4-diamino-6-nitrotoluene	1	4.869	4.866	0.003	26794	0.1000	0.0948	

Reagents:

8330_ADDs_00037 Amount Added: 5.00 Units: uL

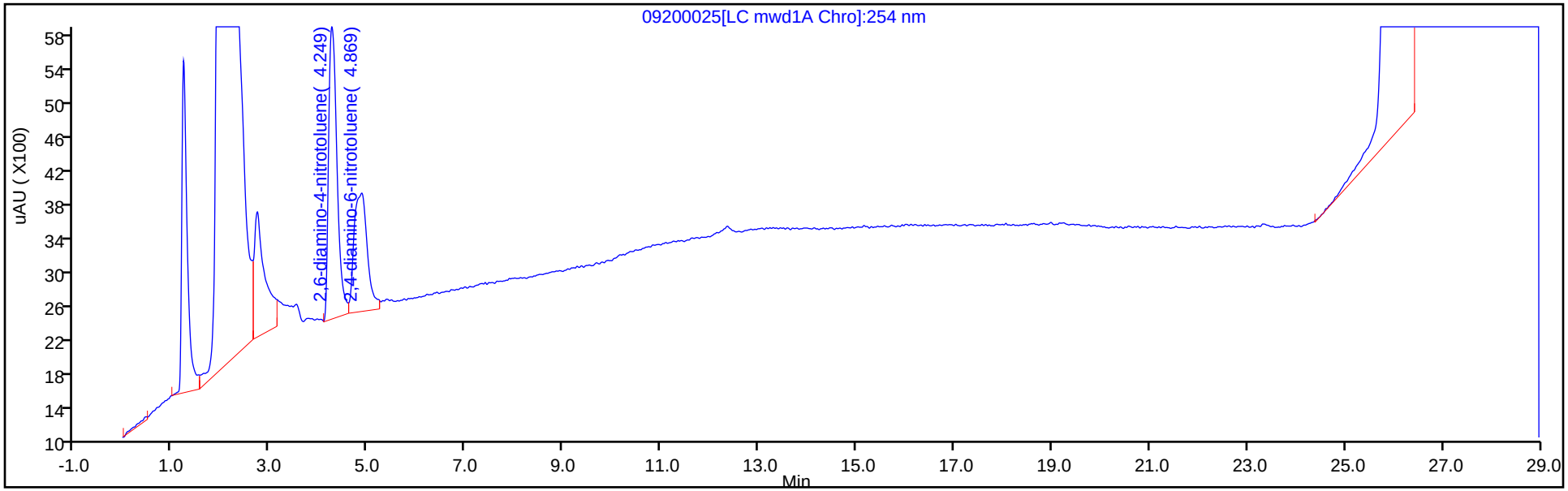
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Eurofins Denver

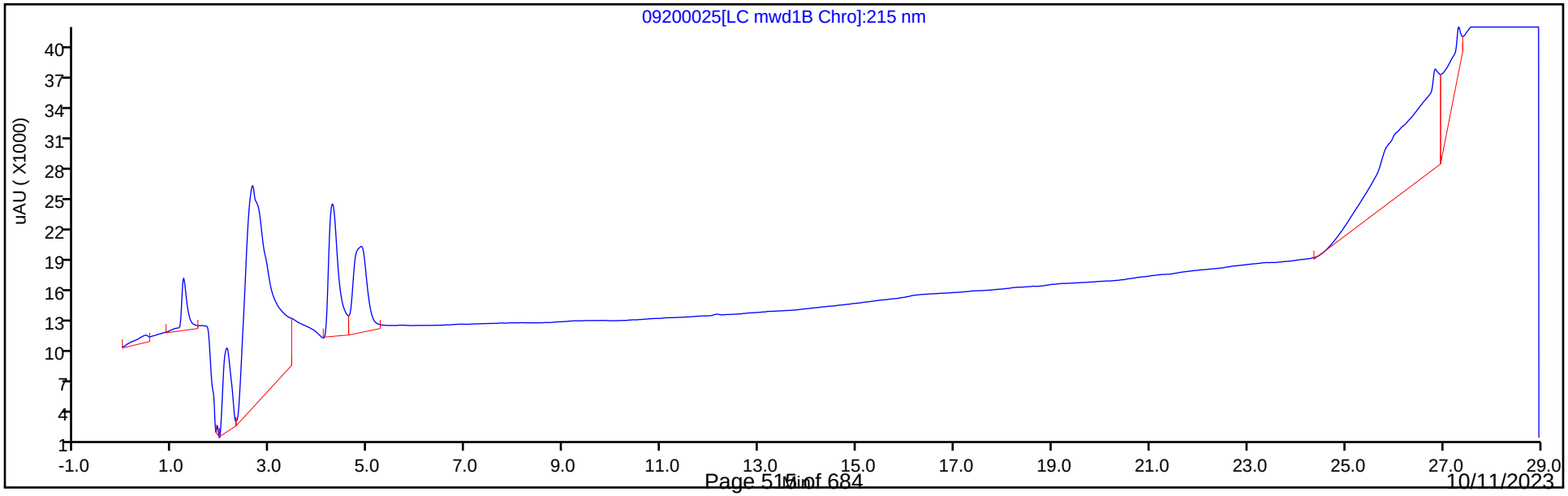
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200025.D

Injection Date:	21-Sep-2023 04:45:42	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
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
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200026.D				
Lims ID:	IC ADD 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	21-Sep-2023 05:20:38	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 2				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:21	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.262	4.246	0.016	21436	0.0400	0.0410	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.866	-0.011	14194	0.0400	0.0410	

Reagents:

8330_ADDs_00037 Amount Added: 2.00 Units: uL

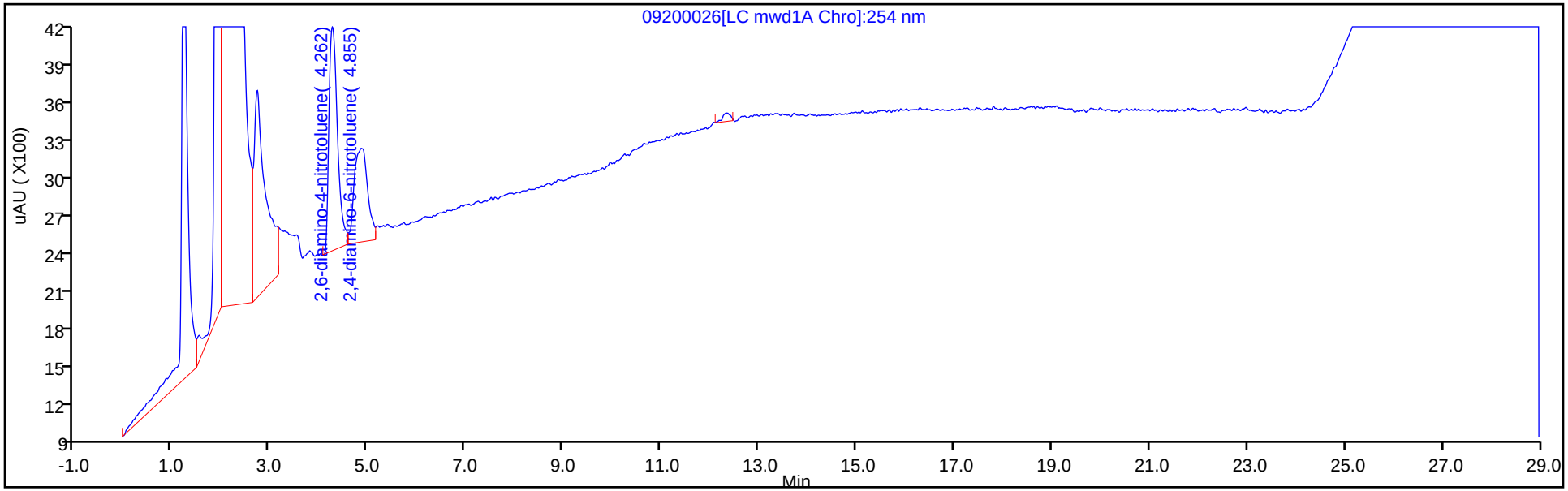
Report Date: 21-Sep-2023 16:09:21 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

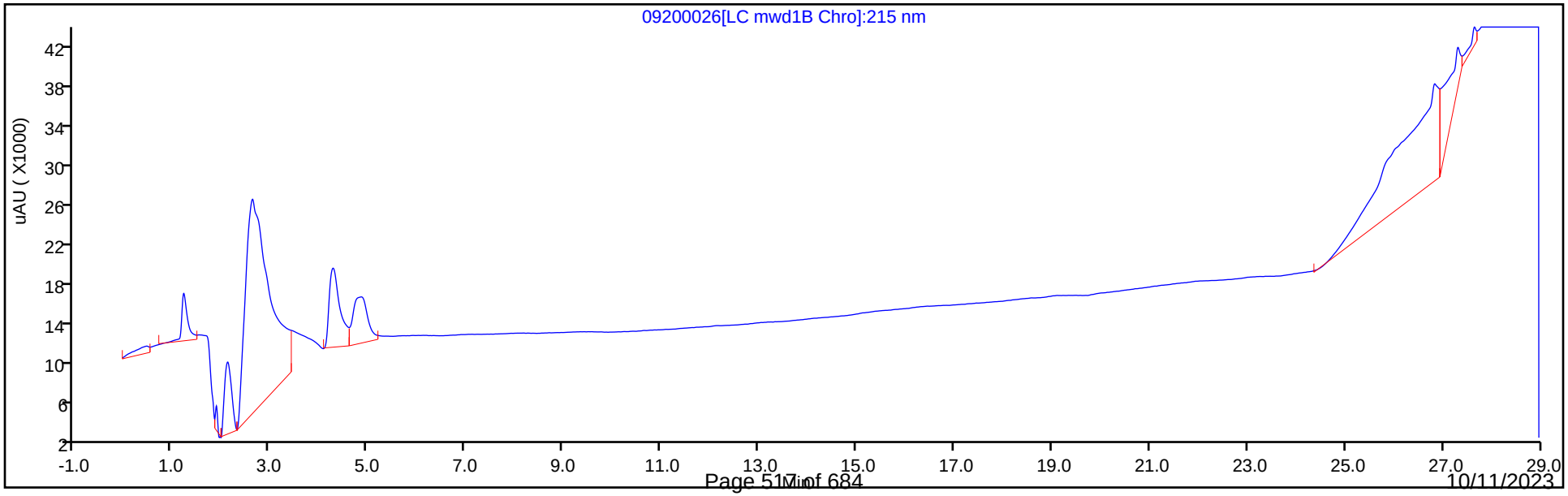
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200026.D

Injection Date:	21-Sep-2023 05:20:38	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
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
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Lims ID:	IC ADD 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	21-Sep-2023 05:55:36	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 1				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:21	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				
First Level Reviewer: LV5D		Date:	21-Sep-2023 16:08:33		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.262	4.246	0.016	9614	0.0200	0.009724	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.866	-0.011	6373	0.0200	0.007536	

QC Flag Legend

Processing Flags

Reagents:

8330_ADDs_00037 Amount Added: 1.00 Units: uL

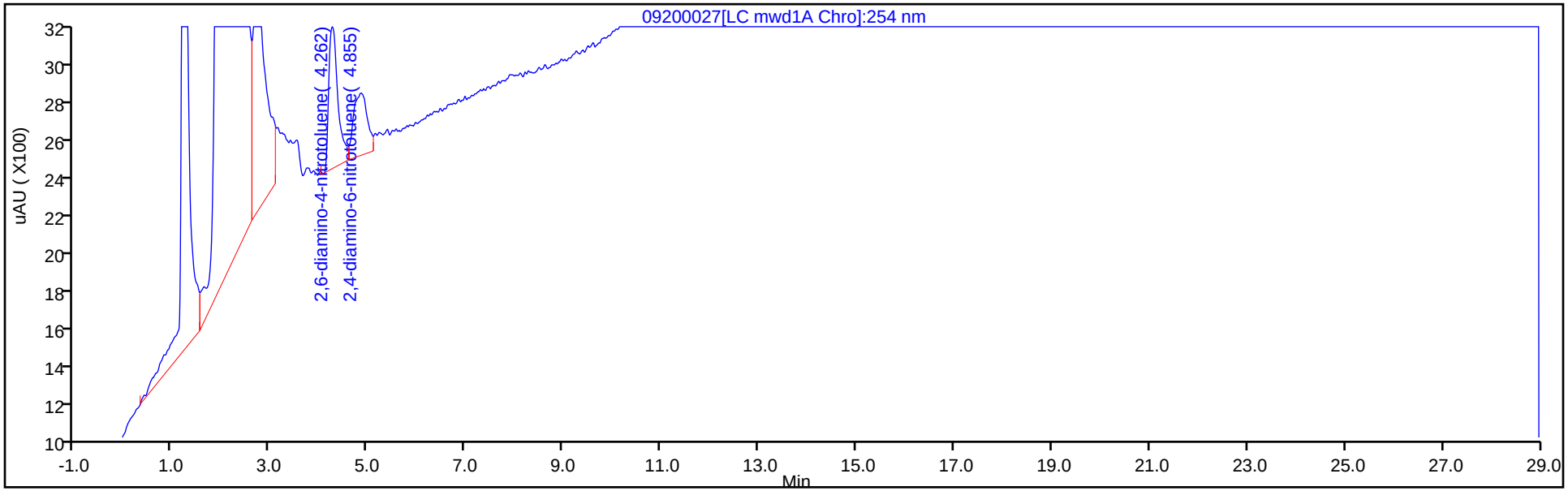
Report Date: 21-Sep-2023 16:09:21 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

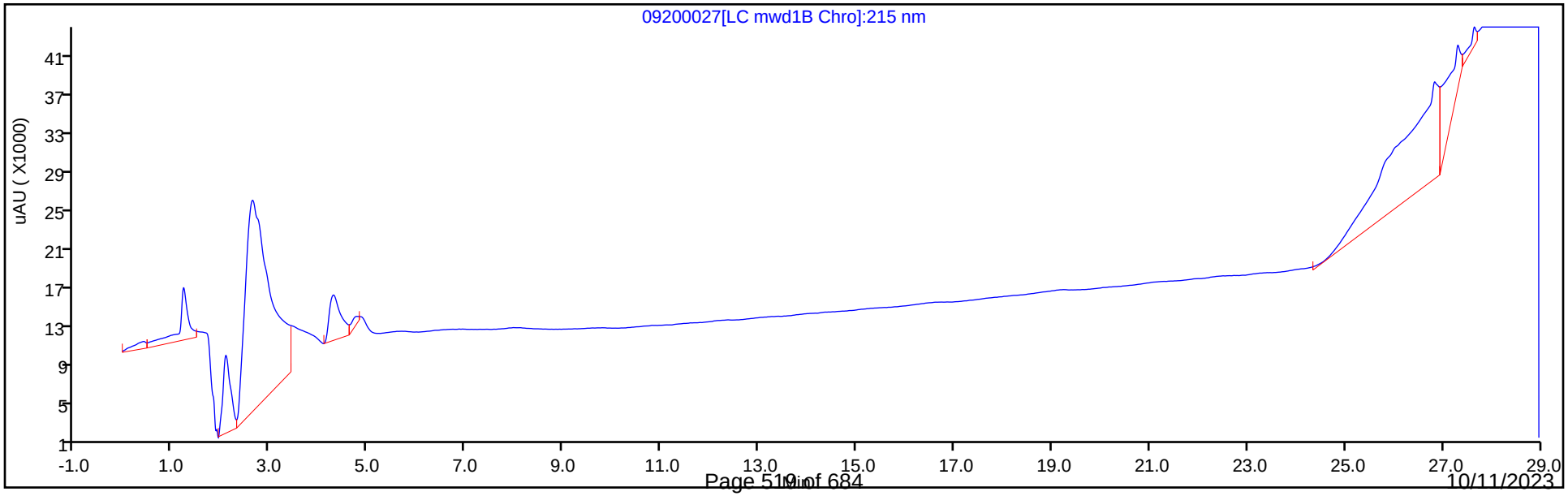
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Injection Date:	21-Sep-2023 05:55:36	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
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



Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

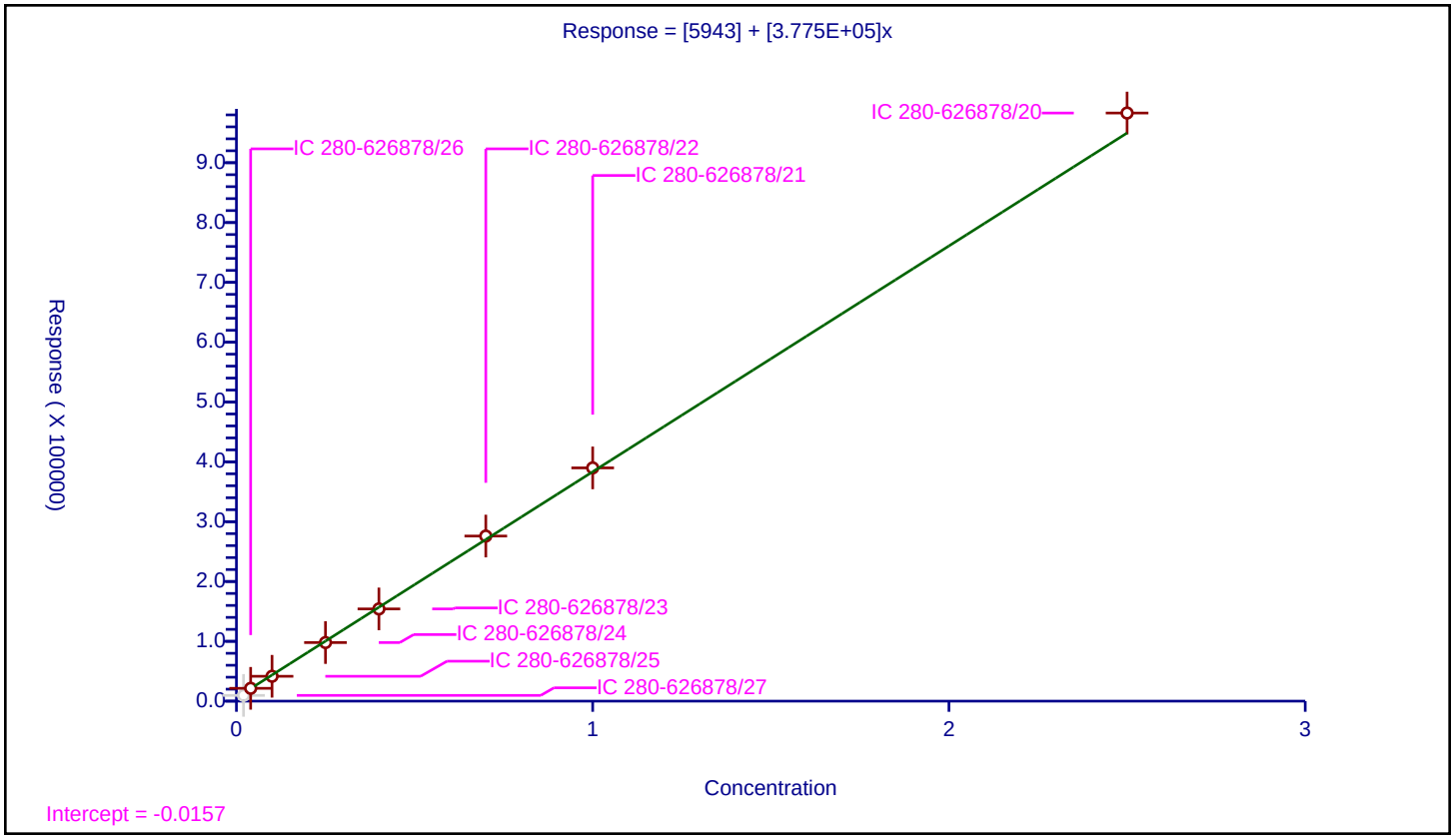
Curve Coefficients

Intercept:	5943
Slope:	3.775E+05

Error Coefficients

Standard Error:	15500
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-626878/27	0.02	9614.0			480700.0	N
2	IC 280-626878/26	0.04	21436.0			535900.0	Y
3	IC 280-626878/25	0.1	41559.0			415590.0	Y
4	IC 280-626878/24	0.25	97940.0			391760.0	Y
5	IC 280-626878/23	0.4	154145.0			385362.5	Y
6	IC 280-626878/22	0.7	275973.0			394247.142857	Y
7	IC 280-626878/21	1.0	389884.0			389884.0	Y
8	IC 280-626878/20	2.5	983093.0			393237.2	Y



10/11/2023
10:32 AM

Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

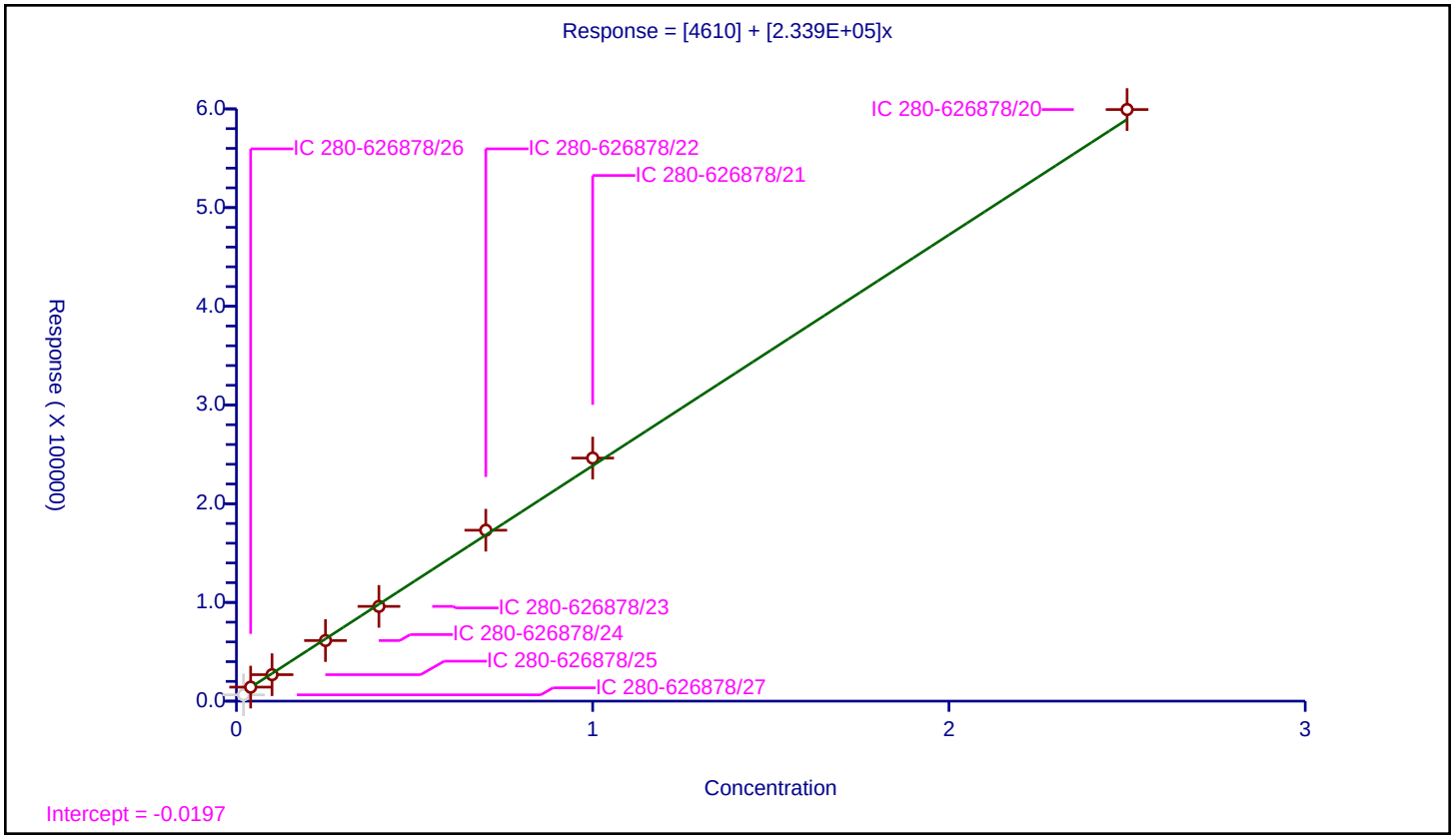
Curve Coefficients

Intercept:	4610
Slope:	2.339E+05

Error Coefficients

Standard Error:	6200
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-626878/27	0.02	6373.0			318650.0	N
2	IC 280-626878/26	0.04	14194.0			354850.0	Y
3	IC 280-626878/25	0.1	26794.0			267940.0	Y
4	IC 280-626878/24	0.25	61385.0			245540.0	Y
5	IC 280-626878/23	0.4	95979.0			239947.5	Y
6	IC 280-626878/22	0.7	173173.0			247390.0	Y
7	IC 280-626878/21	1.0	246270.0			246270.0	Y
8	IC 280-626878/20	2.5	599341.0			239736.4	Y



10/11/2023
10:32 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-617295/20 Calibration Date: 06/23/2023 21:20

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 06230020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	199627		499	502	-0.6	20.0
HMX	Ave	94255	83092		441	500	-11.8	20.0
DNX	Ave	144493	149728		519	501	3.6	20.0
MNX	Ave	138689	138972		585	584	0.2	20.0
RDX	Ave	110493	105934		479	500	-4.1	20.0
Picric acid	Ave	77863	85034		546	500	9.2	20.0
1,3,5-Trinitrobenzene	Ave	216079	236762		548	500	9.6	20.0
1,3-Dinitrobenzene	Ave	293347	307830		525	500	4.9	20.0
Nitrobenzene	Ave	192696	199368		517	500	3.5	20.0
3,5-Dinitroaniline	Lin2		225728		502	500	0.4	20.0
Tetryl	Ave	167257	189110		565	500	13.1	20.0
Nitroglycerin	Ave	64651	68558		5300	5000	6.0	20.0
2,4,6-Trinitrotoluene	Ave	204902	210316		513	500	2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	156178		522	500	4.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	201626		520	500	4.1	20.0
2,6-Dinitrotoluene	Ave	142638	147100		516	500	3.1	20.0
2,4-Dinitrotoluene	Ave	295706	300582		508	500	1.6	20.0
2-Nitrotoluene	Ave	126123	126932		503	500	0.6	20.0
4-Nitrotoluene	Ave	110088	109714		498	500	-0.3	20.0
3-Nitrotoluene	Lin2		139916		512	500	2.4	20.0
PETN	Ave	72018	77398		5370	5000	7.5	20.0
1,2-Dinitrobenzene	Ave	123911	127840		516	500	3.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-617295/20 Calibration Date: 06/23/2023 21:20

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 06230020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.47	6.37	6.57
HMX	6.60	6.45	6.75
DNX	6.80	6.70	6.90
MNX	7.23	7.09	7.39
RDX	7.63	7.47	7.77
Picric acid	8.01	7.88	8.18
1,3,5-Trinitrobenzene	8.71	8.56	8.86
1,3-Dinitrobenzene	9.33	9.19	9.49
Nitrobenzene	9.69	9.56	9.86
3,5-Dinitroaniline	9.93	9.79	10.09
Tetryl	10.07	9.93	10.23
Nitroglycerin	10.52	10.39	10.69
2,4,6-Trinitrotoluene	10.96	10.88	11.08
4-Amino-2,6-dinitrotoluene	11.15	11.07	11.27
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.56	11.48	11.68
2,4-Dinitrotoluene	11.73	11.64	11.84
2-Nitrotoluene	12.55	12.42	12.72
4-Nitrotoluene	12.97	12.83	13.13
3-Nitrotoluene	13.54	13.41	13.71
PETN	14.71	14.57	14.87
1,2-Dinitrobenzene	8.58	8.44	8.74

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230020.D
Lims ID: ICV INT/DMT
Client ID:
Sample Type: ICV
Inject. Date: 23-Jun-2023 21:20:20 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT/DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:56:19 Calib Date: 23-Jun-2023 20:57:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:43:56

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3	TNX	1	6.471	6.470	0.001	100113	0.5015	0.4987	M
4	HMX	1	6.598	6.597	0.001	41546	0.5000	0.4408	M
6	DNX	1	6.798	6.803	-0.005	74939	0.5005	0.5186	M
7	MNX	1	7.231	7.237	-0.006	81090	0.5835	0.5847	
8	RDX	1	7.625	7.623	0.002	52967	0.5000	0.4794	
9	2,4,6-Trinitrophenol	1	8.005	8.030	-0.025	42517	0.5000	0.5460	
$ 10	1,2-Dinitrobenzene	1	8.578	8.590	-0.012	63920	0.5000	0.5159	
11	1,3,5-Trinitrobenzene	1	8.705	8.710	-0.005	118381	0.5000	0.5479	
12	1,3-Dinitrobenzene	1	9.325	9.336	-0.011	153915	0.5000	0.5247	
13	Nitrobenzene	1	9.691	9.710	-0.019	99684	0.5000	0.5173	
14	3,5-Dinitroaniline	1	9.925	9.943	-0.018	112864	0.5000	0.5018	
15	Tetryl	1	10.065	10.083	-0.018	94555	0.5000	0.5653	
16	Nitroglycerin	2	10.518	10.536	-0.018	342788	5.00	5.30	
17	2,4,6-Trinitrotoluene	1	10.958	10.976	-0.018	105158	0.5000	0.5132	
18	4-Amino-2,6-dinitrotoluene	1	11.151	11.170	-0.019	78089	0.5000	0.5221	
19	2-Amino-4,6-dinitrotoluene	1	11.398	11.423	-0.025	100813	0.5000	0.5204	
20	2,6-Dinitrotoluene	1	11.558	11.576	-0.018	73550	0.5000	0.5156	
21	2,4-Dinitrotoluene	1	11.725	11.743	-0.018	150291	0.5000	0.5082	
22	o-Nitrotoluene	1	12.545	12.570	-0.025	63466	0.5000	0.5032	
23	p-Nitrotoluene	1	12.965	12.983	-0.018	54857	0.5000	0.4983	
24	m-Nitrotoluene	1	13.538	13.556	-0.018	69958	0.5000	0.5121	
25	PETN	2	14.711	14.723	-0.012	386990	5.00	5.37	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00146	Amount Added:	50.00	Units: uL
8330 LCS_00127	Amount Added:	50.00	Units: uL
8330_OP_DMT_00021	Amount Added:	50.00	Units: uL

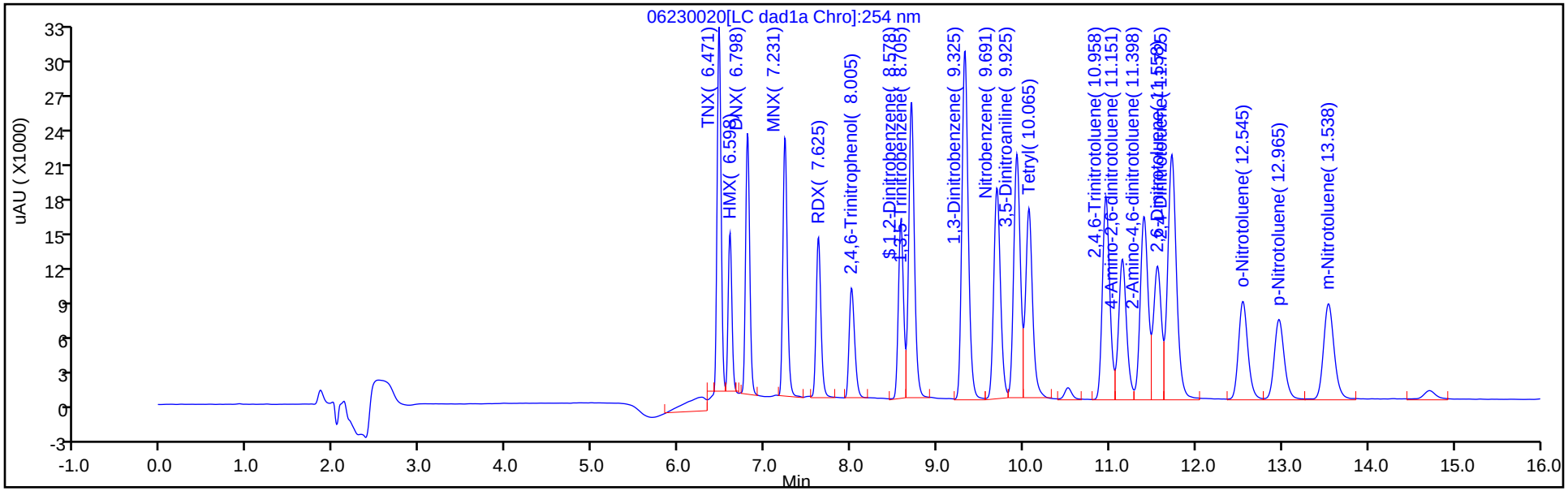
Report Date: 24-Jun-2023 12:56:19 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

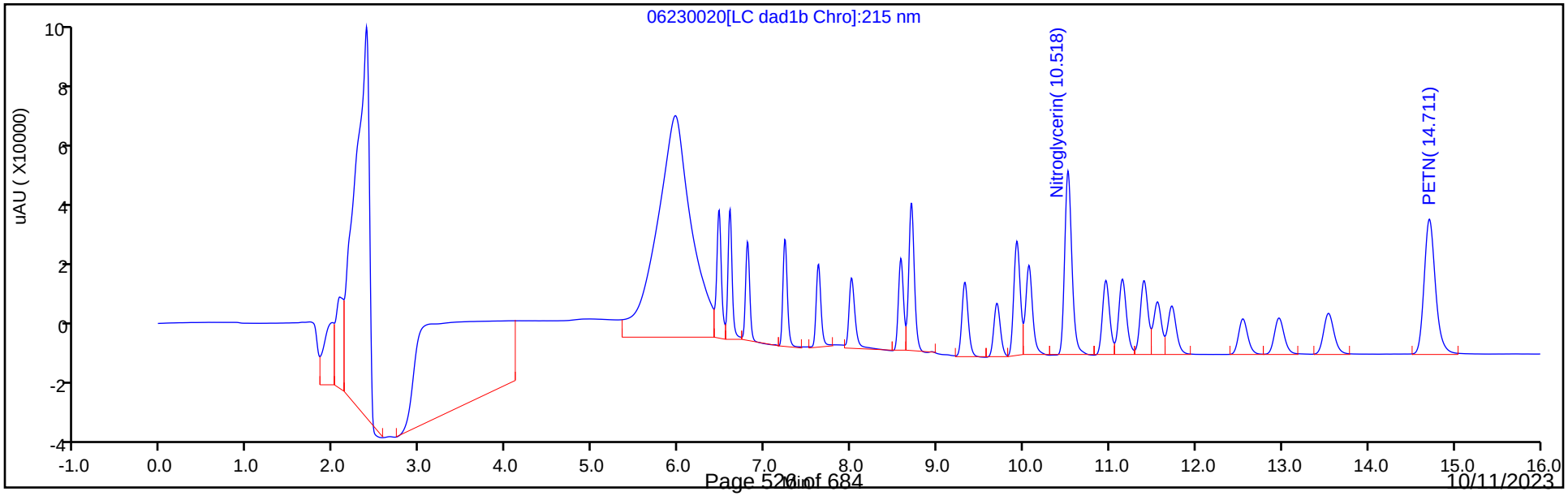
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Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV INT/DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

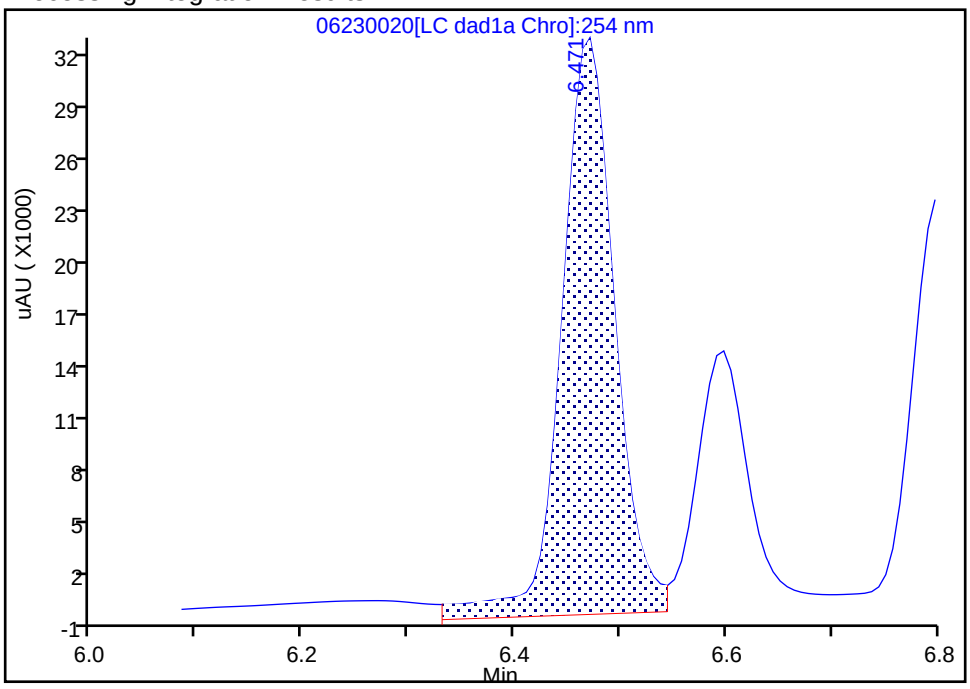
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Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

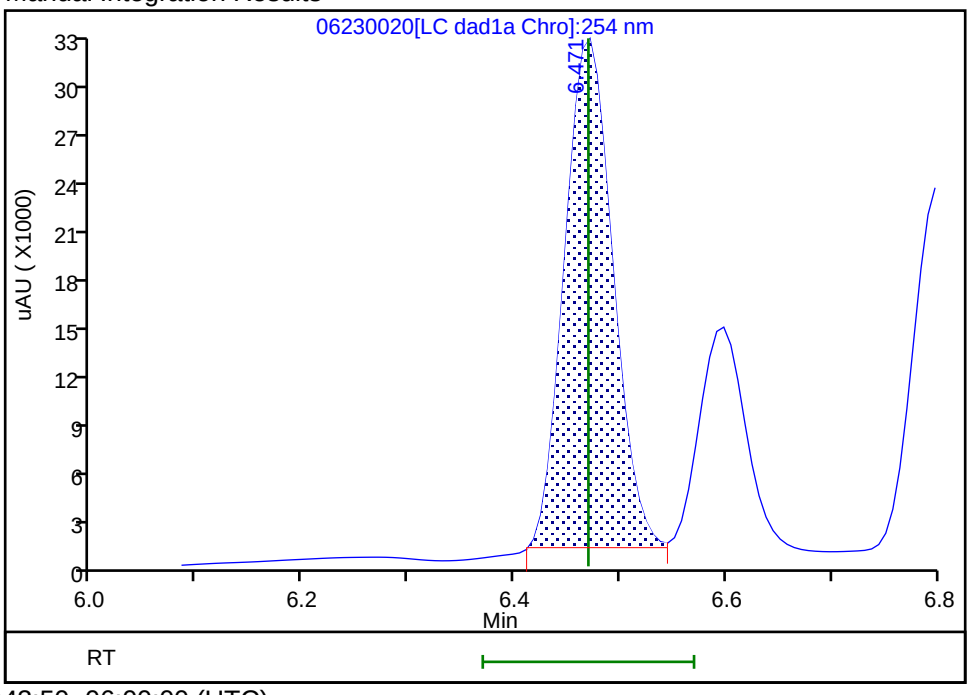
Processing Integration Results

RT: 6.47
Area: 115764
Amount: 0.576626
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 100113
Amount: 0.498668
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:50 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

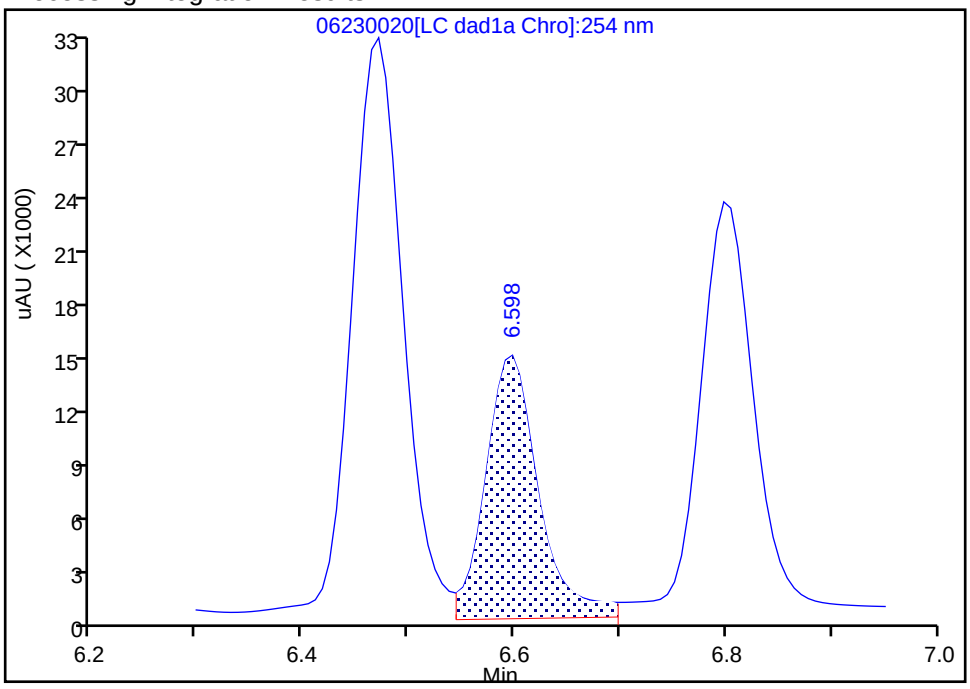
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Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

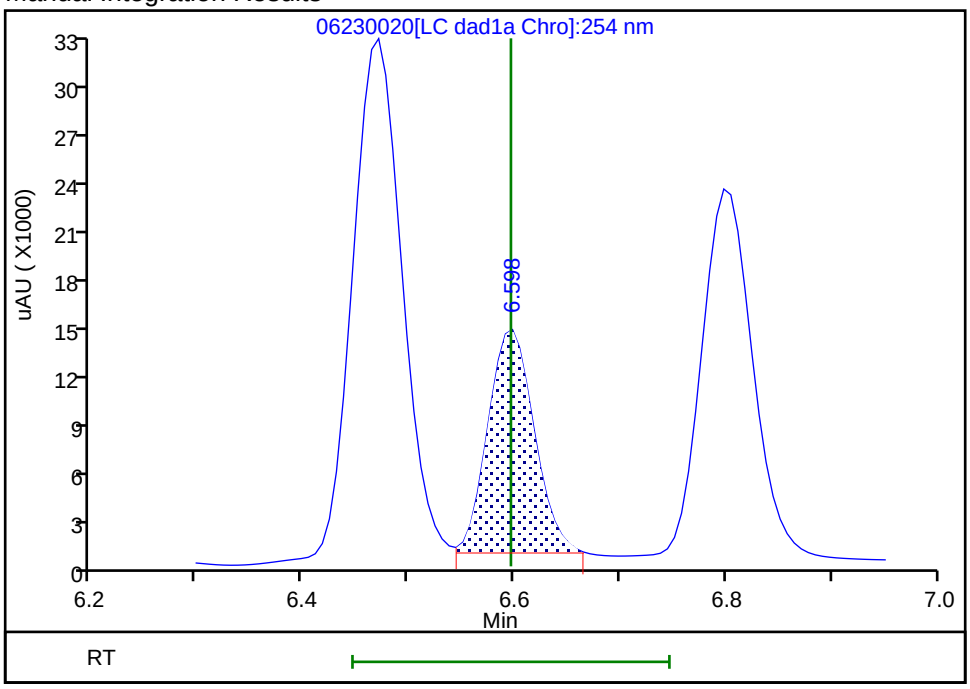
Processing Integration Results

RT: 6.60
Area: 51262
Amount: 0.543863
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 41546
Amount: 0.440781
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:51 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

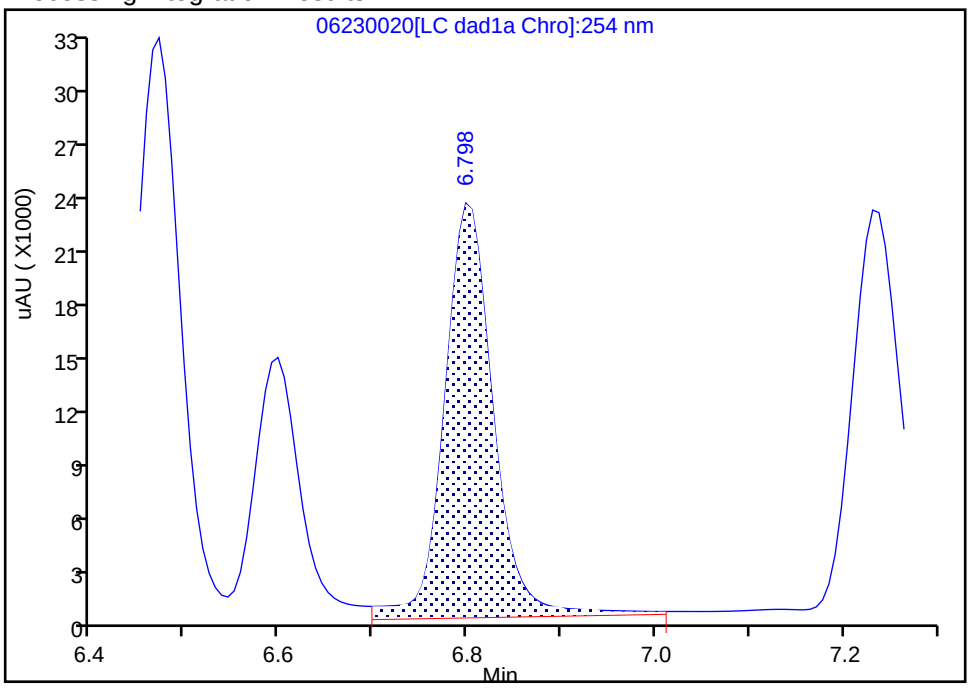
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Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

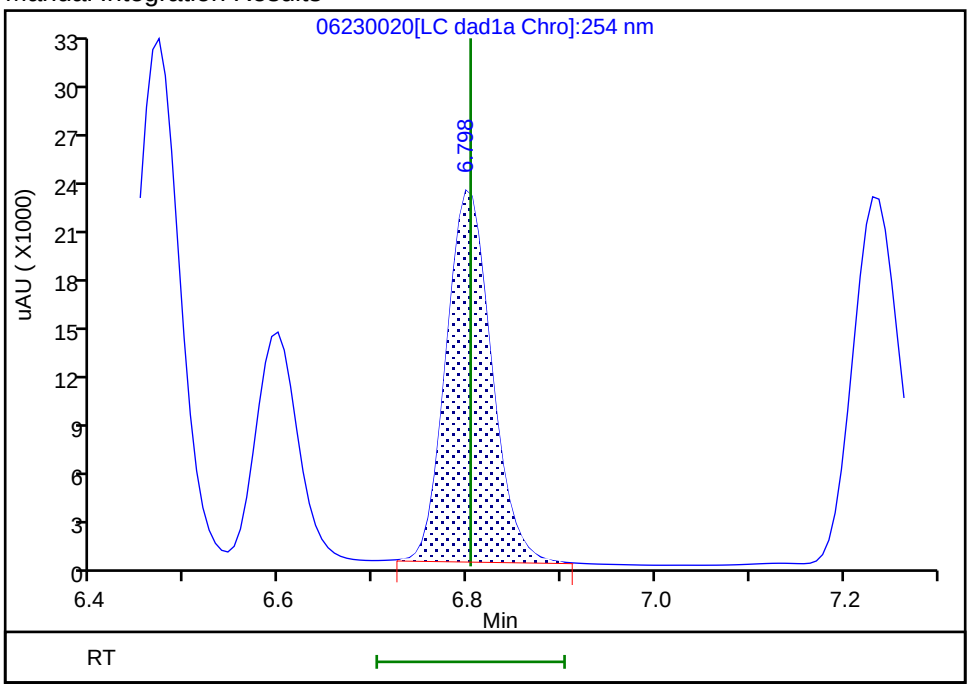
Processing Integration Results

RT: 6.80
Area: 84885
Amount: 0.587469
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 74939
Amount: 0.518635
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:54 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-617295/29 | Calibration Date: 06/24/2023 00:46

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/24/2023 00:23

Lab File ID: 06230029.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	222918		494	500	-1.2	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	140752		491	500	-1.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-617295/29 Calibration Date: 06/24/2023 00:46

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 06230029.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.47	6.33	6.63
2,4-diamino-6-nitrotoluene	6.66	6.52	6.82

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230029.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 24-Jun-2023 00:46:42 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:43:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.469	6.475	-0.006	111459	0.5000	0.4941	M
5 2,4-diamino-6-nitrotoluene	1	6.663	6.669	-0.006	70376	0.5000	0.4910	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330DiaminLCS_00058 Amount Added: 50.00 Units: uL

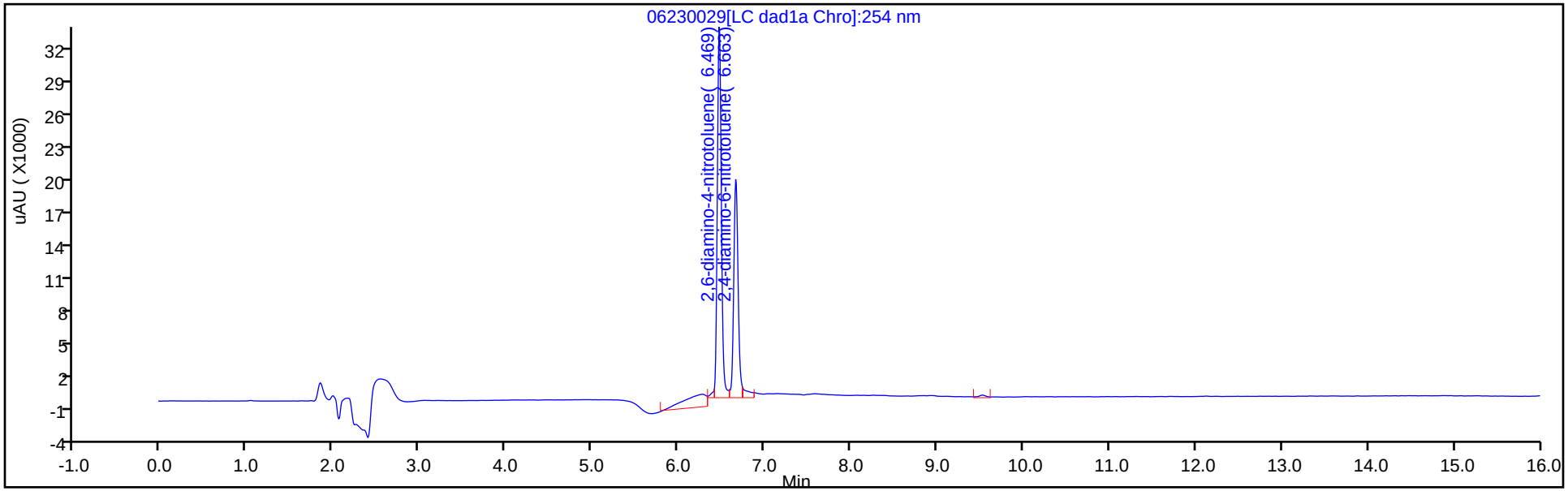
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Eurofins Denver

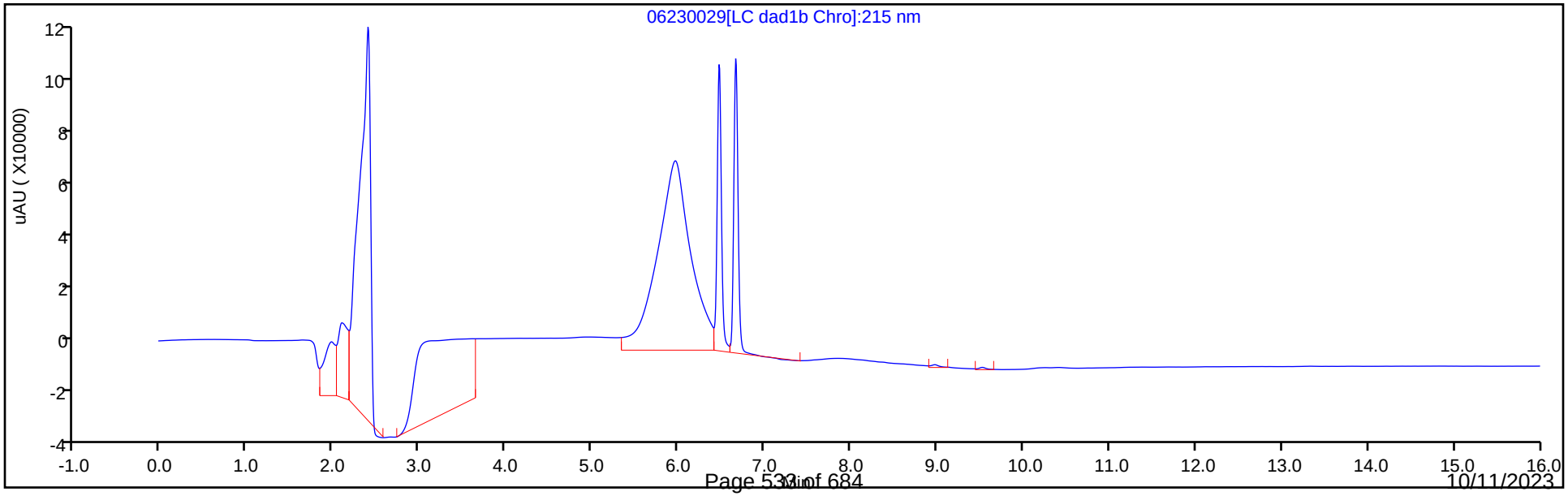
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230029.d

Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

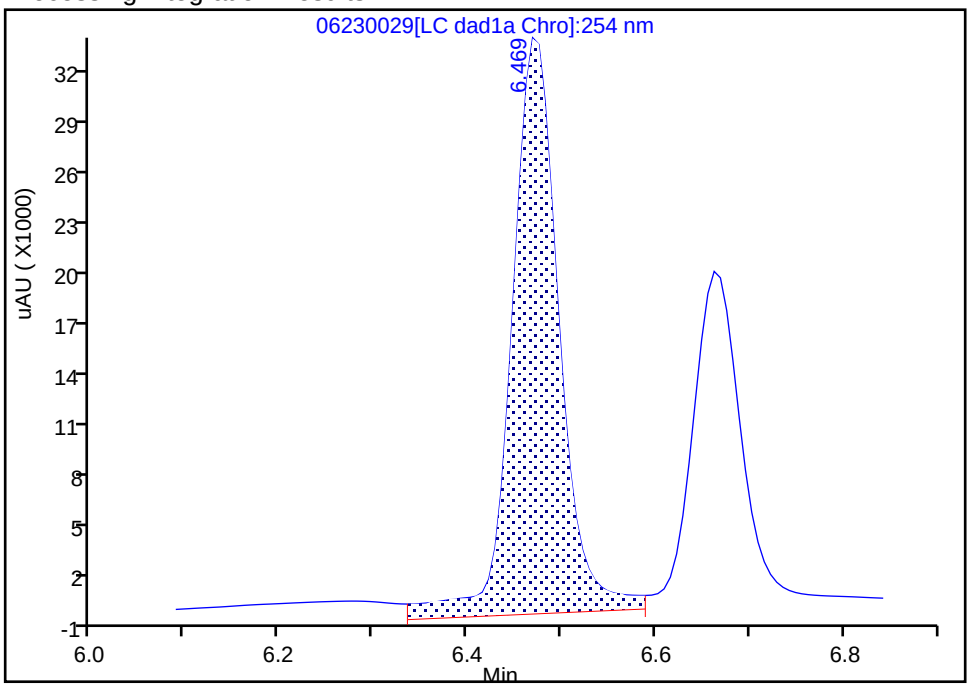
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Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

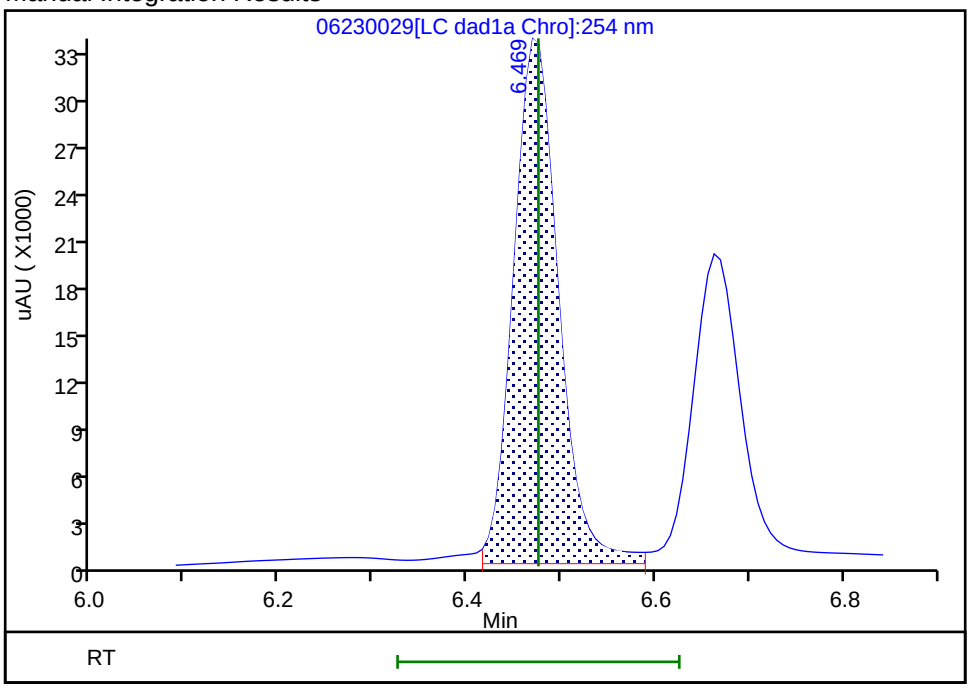
Processing Integration Results

RT: 6.47
Area: 120408
Amount: 0.525262
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 111459
Amount: 0.494132
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

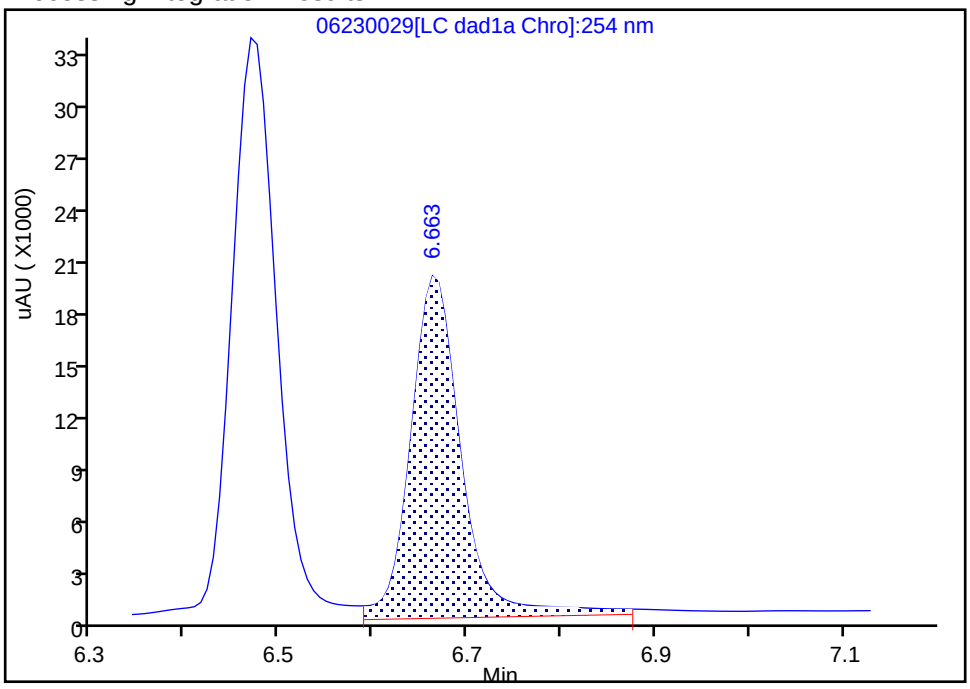
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Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

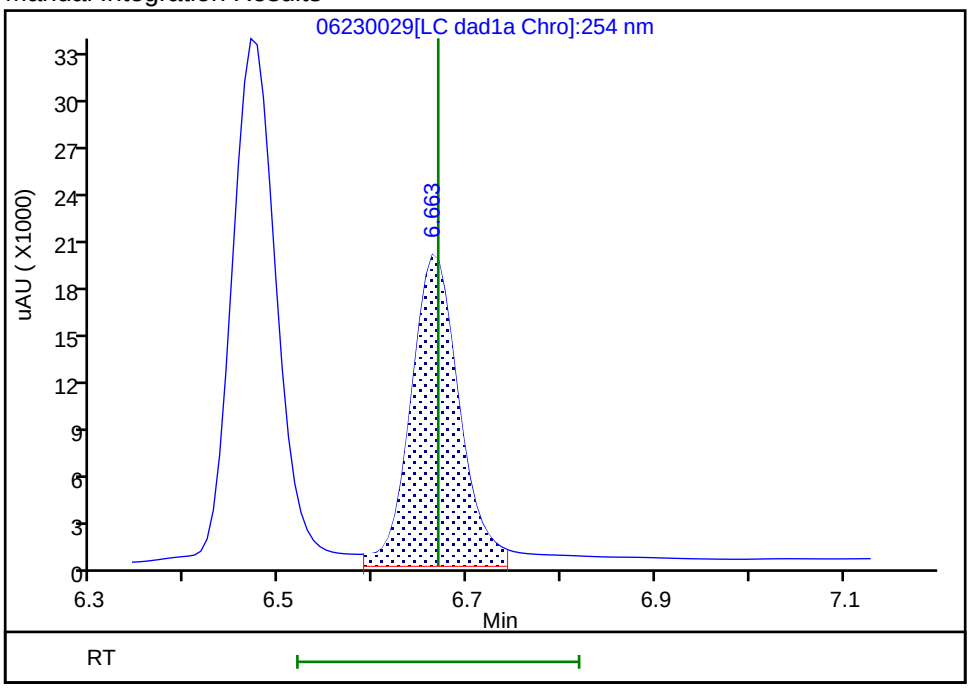
Processing Integration Results

RT: 6.66
Area: 74254
Amount: 0.503423
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 70376
Amount: 0.491020
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:10 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/33 Calibration Date: 10/07/2023 23:24

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	206054		257	251	2.6	20.0
HMX	Ave	94255	95760		254	250	1.6	20.0
DNX	Ave	144493	152887		265	250	5.8	20.0
MNX	Ave	138689	141292		297	292	1.9	20.0
RDX	Ave	110493	109816		248	250	-0.6	20.0
Picric acid	Ave	77863	78940		253	250	1.4	20.0
1,3,5-Trinitrobenzene	Ave	216079	226180		262	250	4.7	20.0
1,3-Dinitrobenzene	Ave	293347	301572		257	250	2.8	20.0
Nitrobenzene	Ave	192696	190304		247	250	-1.2	20.0
3,5-Dinitroaniline	Lin2		221124		246	250	-1.6	20.0
Tetryl	Ave	167257	175284		262	250	4.8	20.0
Nitroglycerin	Ave	64651	70186		2710	2500	8.6	20.0
2,4,6-Trinitrotoluene	Ave	204902	210092		256	250	2.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	152476		255	250	1.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	196056		253	250	1.2	20.0
2,6-Dinitrotoluene	Ave	142638	145864		256	250	2.3	20.0
2,4-Dinitrotoluene	Ave	295706	303044		256	250	2.5	20.0
2-Nitrotoluene	Ave	126123	123296		244	250	-2.2	20.0
4-Nitrotoluene	Ave	110088	106472		242	250	-3.3	20.0
3-Nitrotoluene	Lin2		135236		245	250	-1.8	20.0
PETN	Ave	72018	75590		2620	2500	5.0	20.0
1,2-Dinitrobenzene	Ave	123911	130200		263	250	5.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/33 Calibration Date: 10/07/2023 23:24

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070033.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.35	6.55
HMX	6.57	6.42	6.72
DNX	6.77	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.96	7.79	8.09
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.26	9.10	9.40
Nitrobenzene	9.63	9.47	9.77
3,5-Dinitroaniline	9.85	9.68	9.98
Tetryl	9.98	9.81	10.11
Nitroglycerin	10.43	10.26	10.56
2,4,6-Trinitrotoluene	10.87	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.04	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.29	11.16	11.36
2,6-Dinitrotoluene	11.45	11.32	11.52
2,4-Dinitrotoluene	11.62	11.49	11.69
2-Nitrotoluene	12.42	12.24	12.54
4-Nitrotoluene	12.84	12.65	12.95
3-Nitrotoluene	13.40	13.21	13.51
PETN	14.52	14.32	14.62
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070033.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 07-Oct-2023 23:24:19 ALS Bottle#: 7 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:05 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:03:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.441	6.450	-0.009	51668	0.2508	0.2574	M
4 HMX	1	6.568	6.570	-0.002	23940	0.2500	0.2540	M
6 DNX	1	6.768	6.776	-0.008	38260	0.2503	0.2648	M
7 MNX	1	7.195	7.196	-0.001	41222	0.2918	0.2972	M
8 RDX	1	7.575	7.576	-0.001	27454	0.2500	0.2485	
9 2,4,6-Trinitrophenol	1	7.955	7.943	0.012	19735	0.2500	0.2535	
$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	32550	0.2500	0.2627	
11 1,3,5-Trinitrobenzene	1	8.648	8.643	0.005	56545	0.2500	0.2617	
12 1,3-Dinitrobenzene	1	9.261	9.250	0.011	75393	0.2500	0.2570	
13 Nitrobenzene	1	9.628	9.616	0.012	47576	0.2500	0.2469	
14 3,5-Dinitroaniline	1	9.848	9.830	0.018	55281	0.2500	0.2461	
15 Tetryl	1	9.981	9.956	0.025	43821	0.2500	0.2620	
16 Nitroglycerin	2	10.428	10.410	0.018	175466	2.50	2.71	
17 2,4,6-Trinitrotoluene	1	10.868	10.843	0.025	52523	0.2500	0.2563	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.010	0.031	38119	0.2500	0.2549	
19 2-Amino-4,6-dinitrotoluene	1	11.288	11.256	0.032	49014	0.2500	0.2530	
20 2,6-Dinitrotoluene	1	11.448	11.423	0.025	36466	0.2500	0.2557	
21 2,4-Dinitrotoluene	1	11.615	11.590	0.025	75761	0.2500	0.2562	
22 o-Nitrotoluene	1	12.421	12.390	0.031	30824	0.2500	0.2444	
23 p-Nitrotoluene	1	12.835	12.796	0.039	26618	0.2500	0.2418	
24 m-Nitrotoluene	1	13.395	13.356	0.039	33809	0.2500	0.2455	
25 PETN	2	14.521	14.470	0.051	188976	2.50	2.62	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

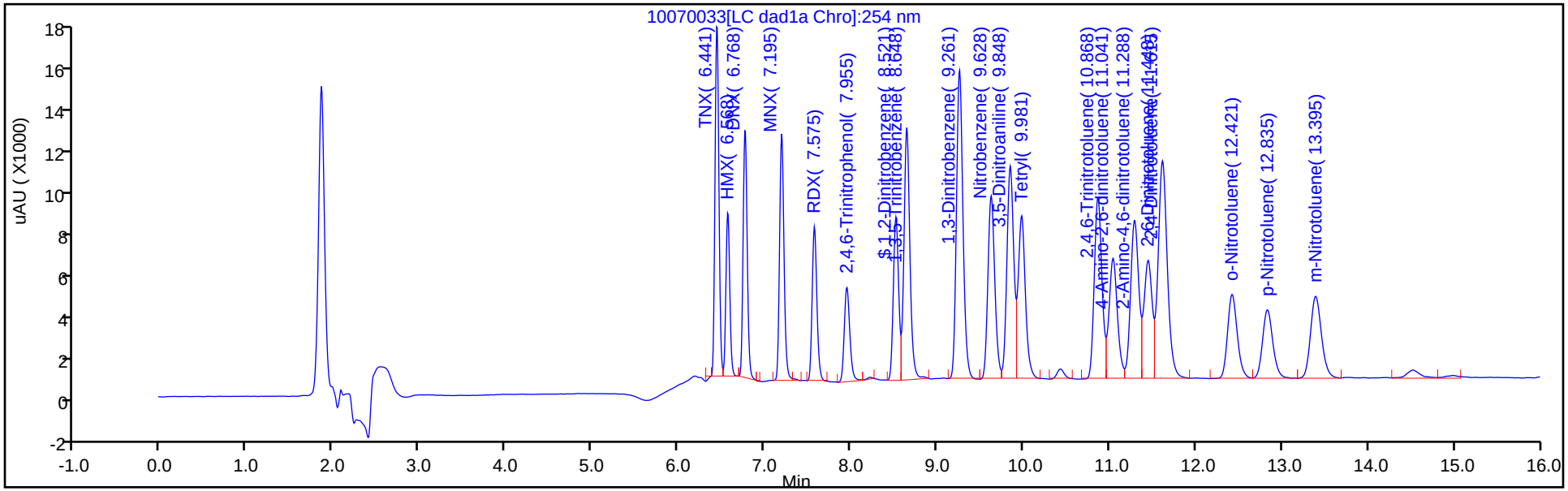
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Eurofins Denver

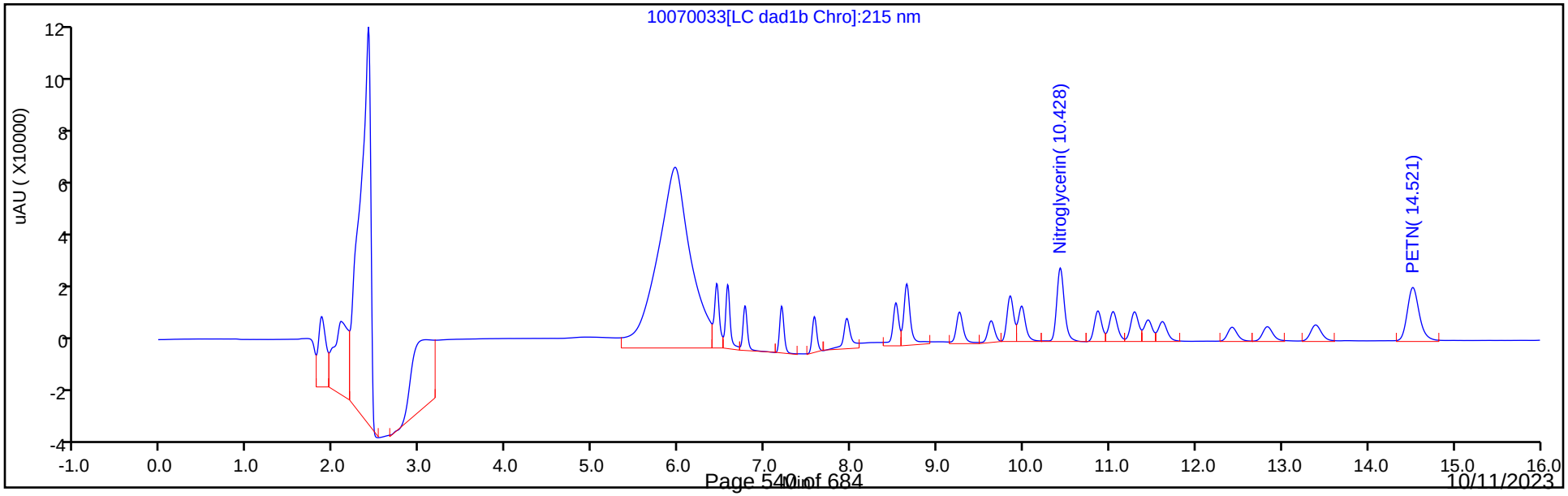
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Injection Date:	07-Oct-2023 23:24:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

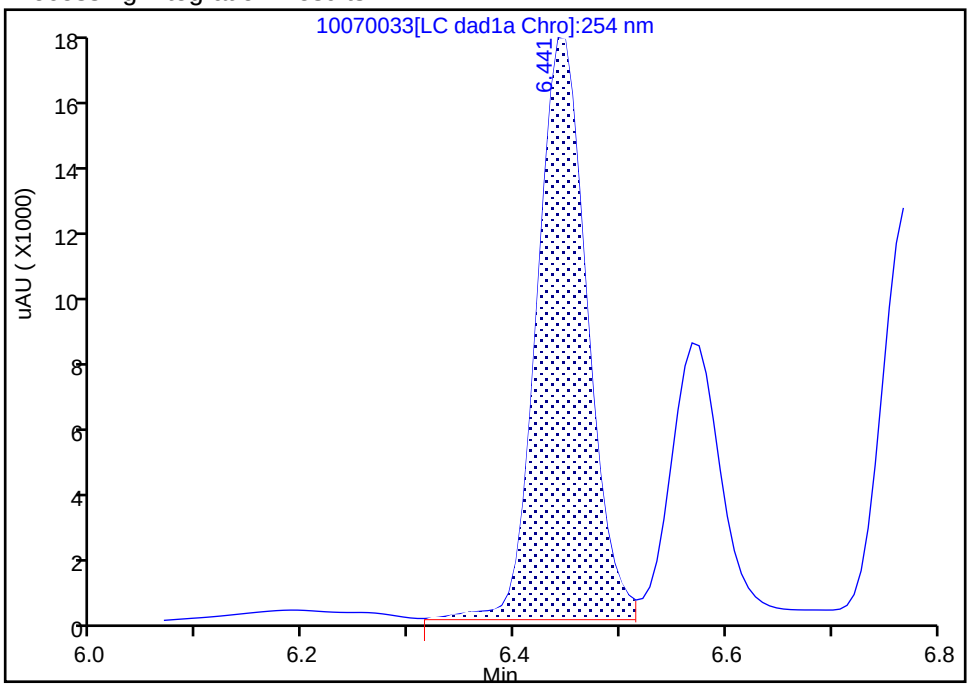
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Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

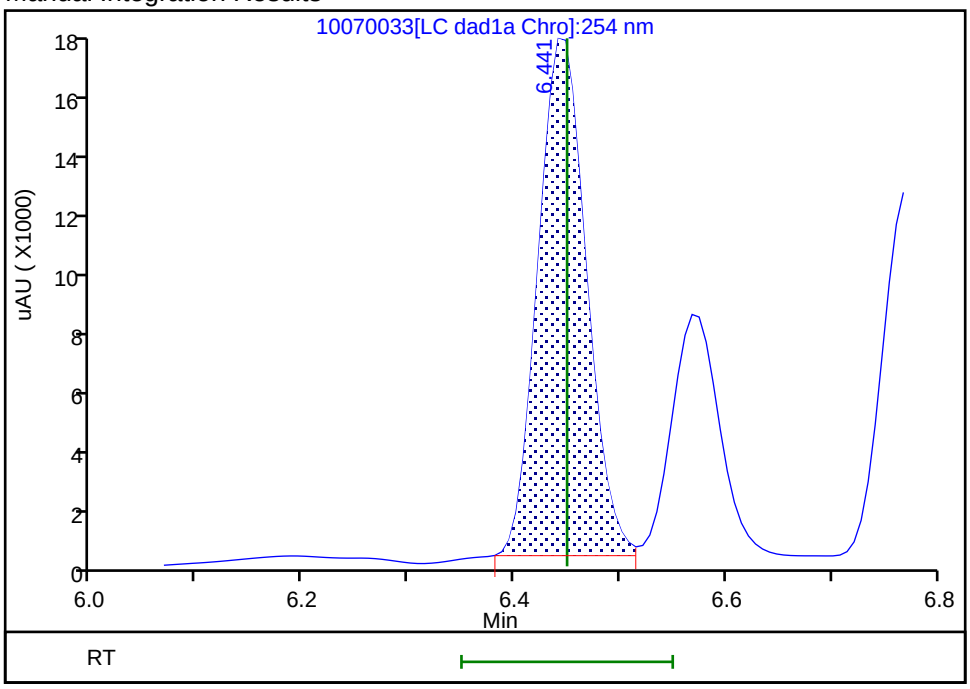
Processing Integration Results

RT: 6.44
Area: 54066
Amount: 0.269305
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 51668
Amount: 0.257361
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:03:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

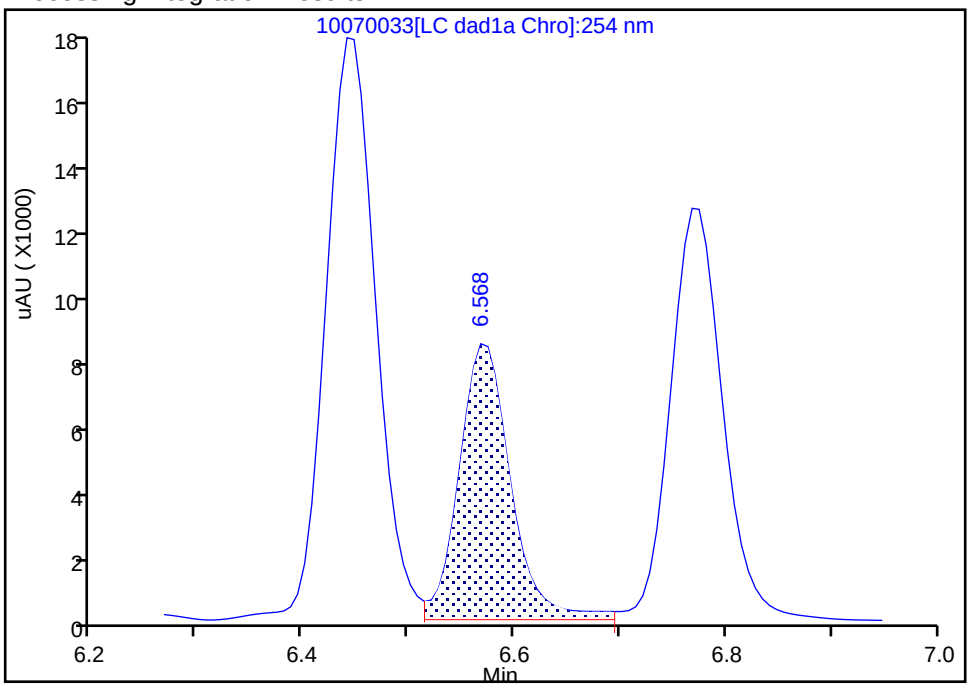
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Injection Date:	07-Oct-2023 23:24:19	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

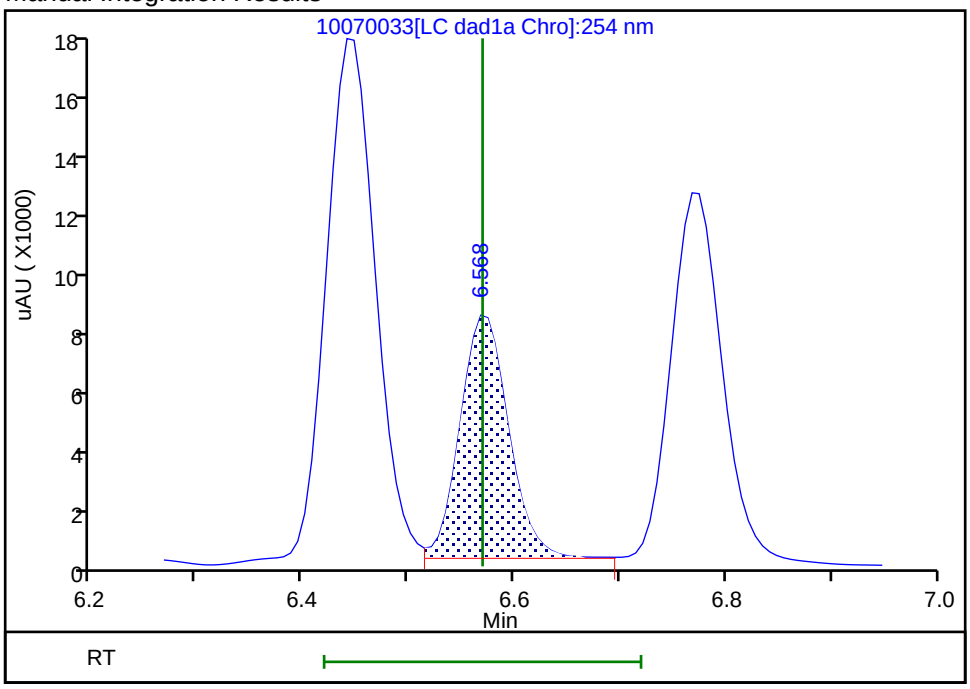
Processing Integration Results

RT: 6.57
Area: 26511
Amount: 0.281268
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 23940
Amount: 0.253991
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:03:44 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

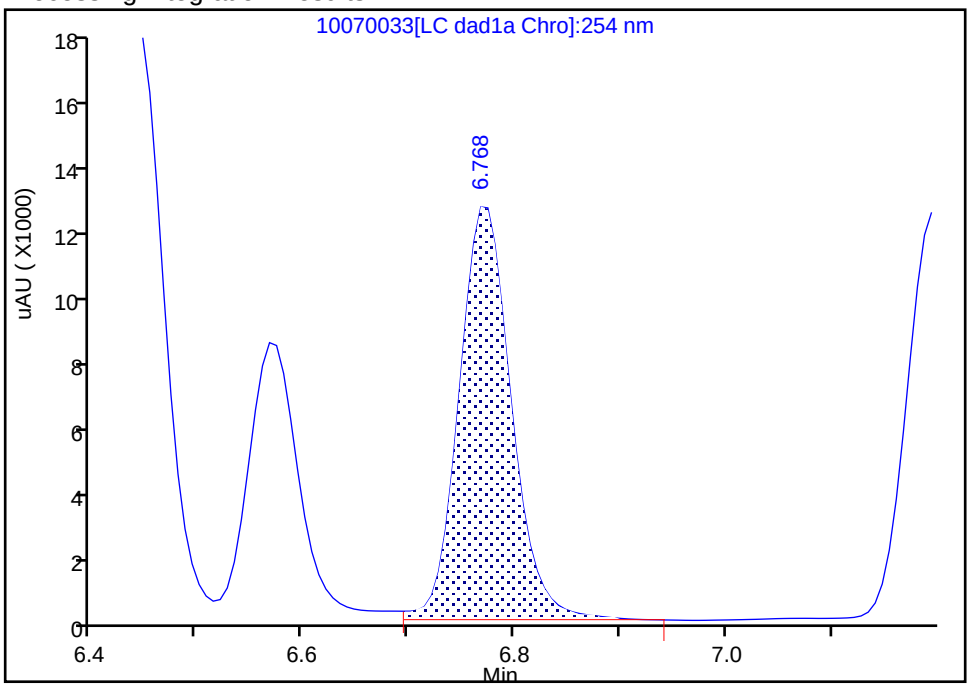
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Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

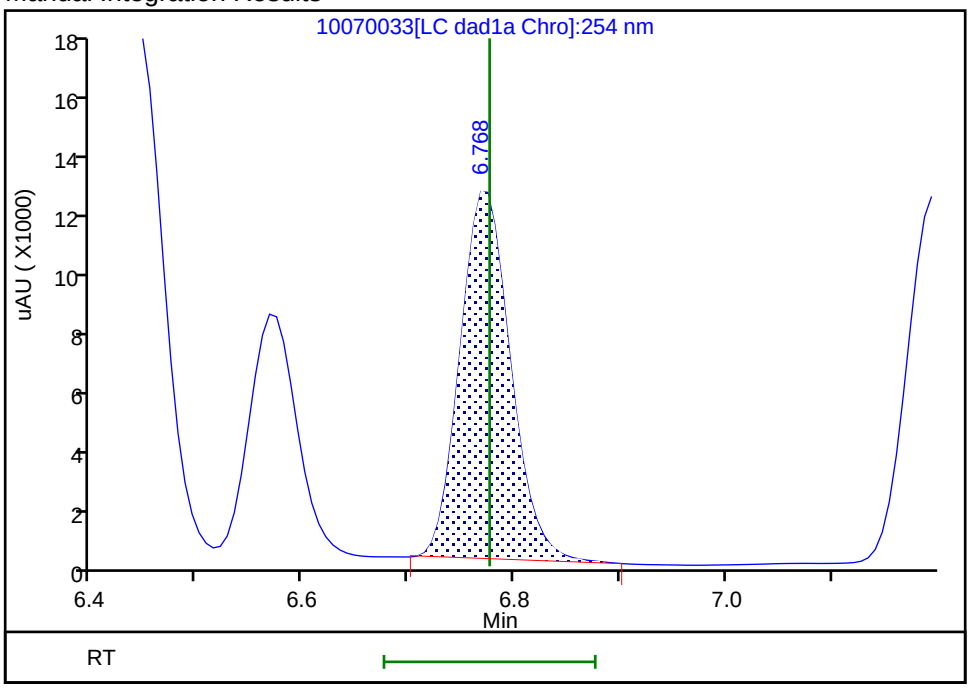
Processing Integration Results

RT: 6.77
Area: 40113
Amount: 0.277612
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 38260
Amount: 0.264788
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:03:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

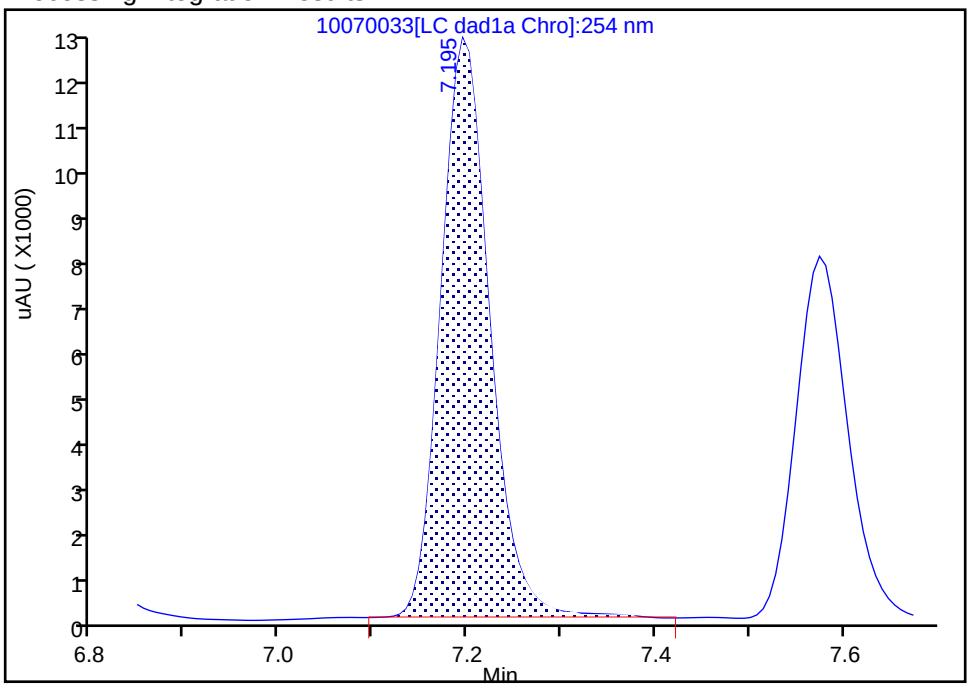
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Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

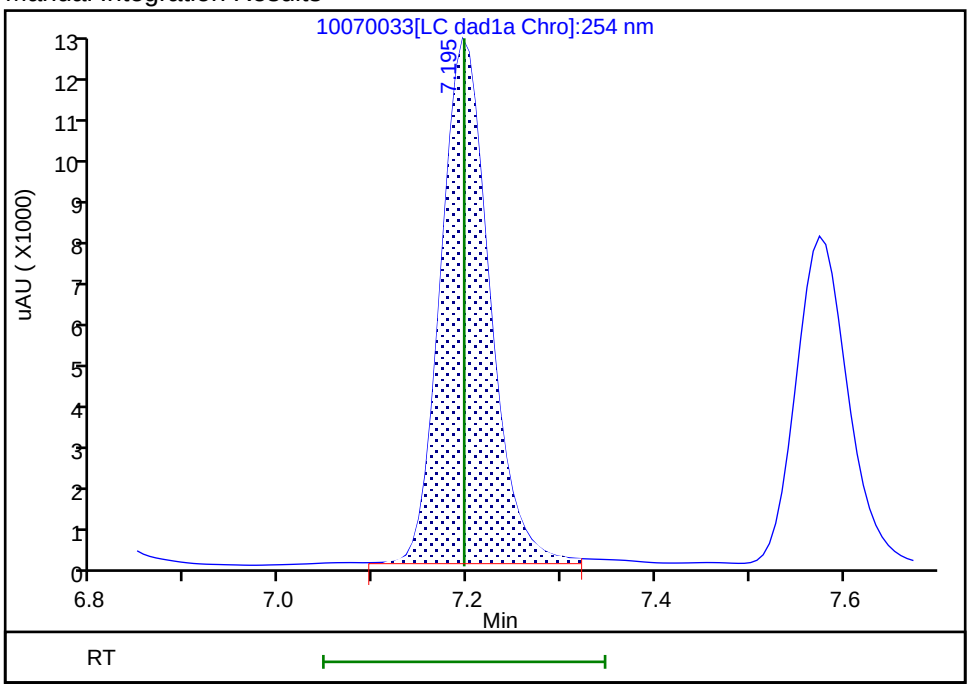
Processing Integration Results

RT: 7.19
Area: 41502
Amount: 0.299246
Amount Units: ug/mL



Manual Integration Results

RT: 7.19
Area: 41222
Amount: 0.297227
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:04:10 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/34 Calibration Date: 10/07/2023 23:47

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070034.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	209976		233	250	-6.9	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	126268		220	250	-11.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/34 Calibration Date: 10/07/2023 23:47

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070034.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070034.D				
Lims ID:	CCV ADD				
Client ID:					
Sample Type:	CCV				
Inject. Date:	07-Oct-2023 23:47:16	ALS Bottle#:	8	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV ADD				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:06	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				
First Level Reviewer: K8YG		Date:	09-Oct-2023 08:55:20		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.441	6.438	0.003	52494	0.2500	0.2327	M
5 2,4-diamino-6-nitrotoluene	1	6.627	6.625	0.002	31567	0.2500	0.2202	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

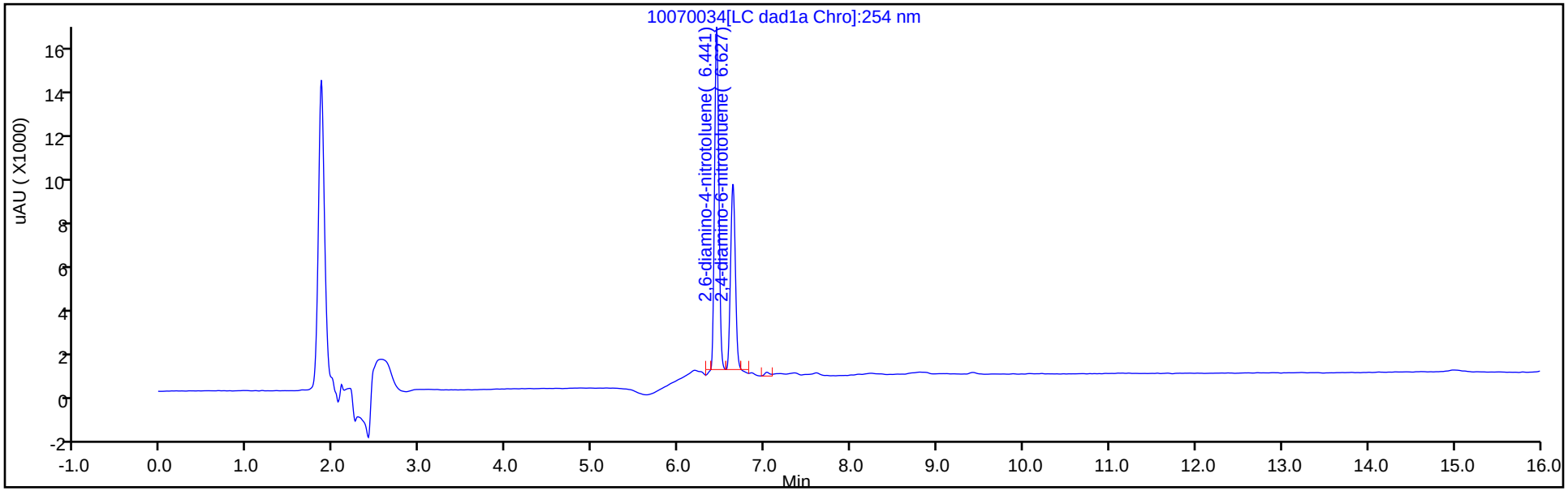
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Eurofins Denver

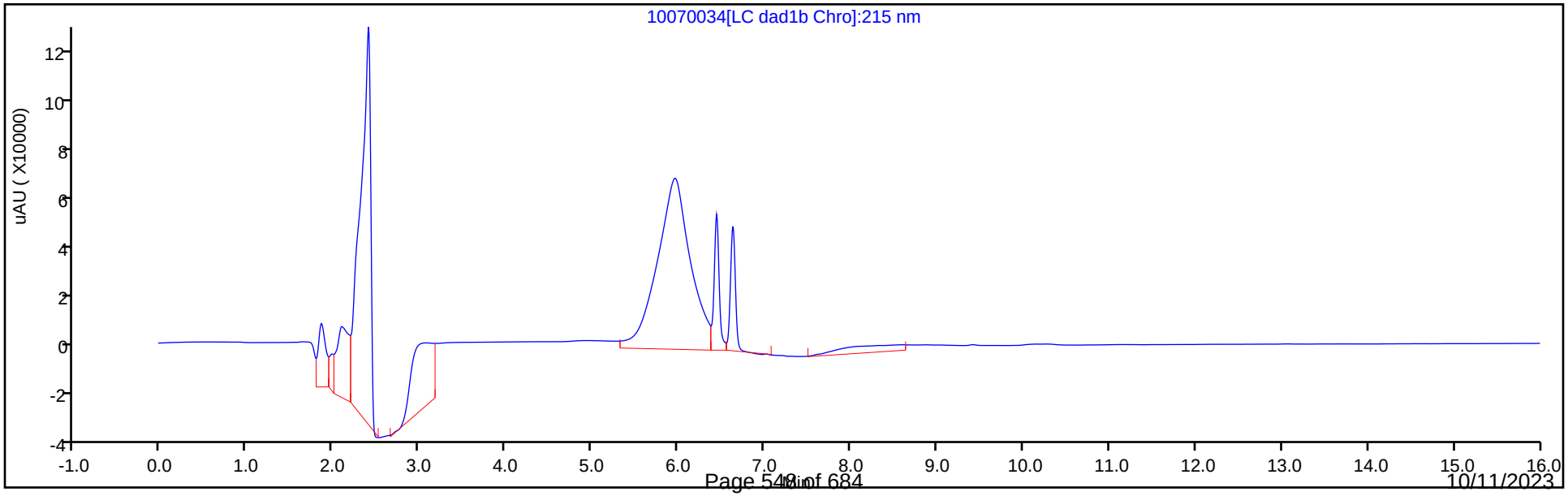
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Injection Date:	07-Oct-2023 23:47:16	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	34
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

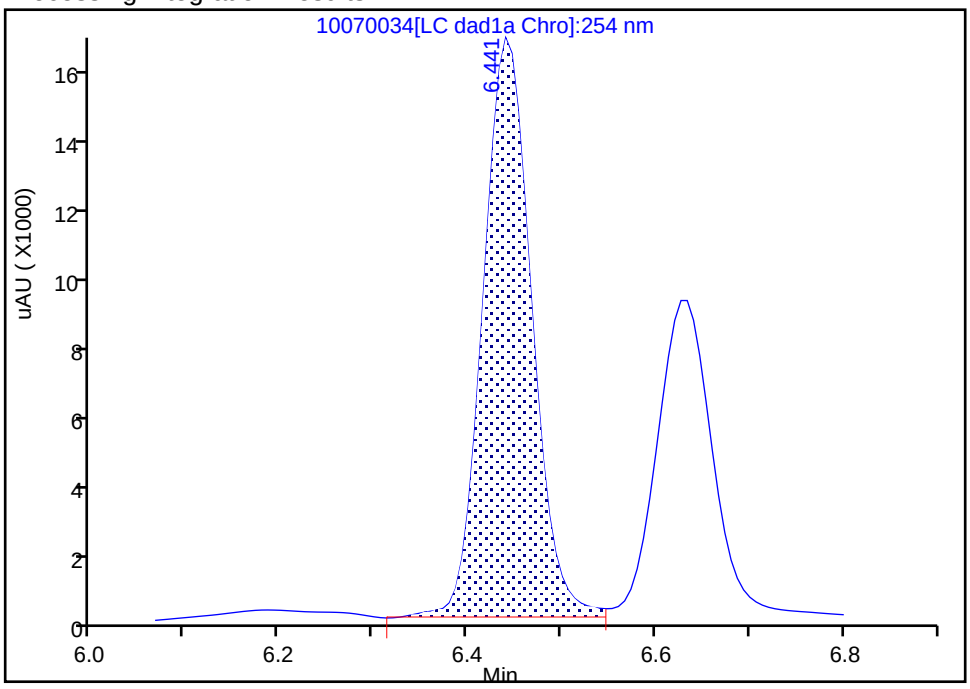
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Injection Date:	07-Oct-2023 23:47:16	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

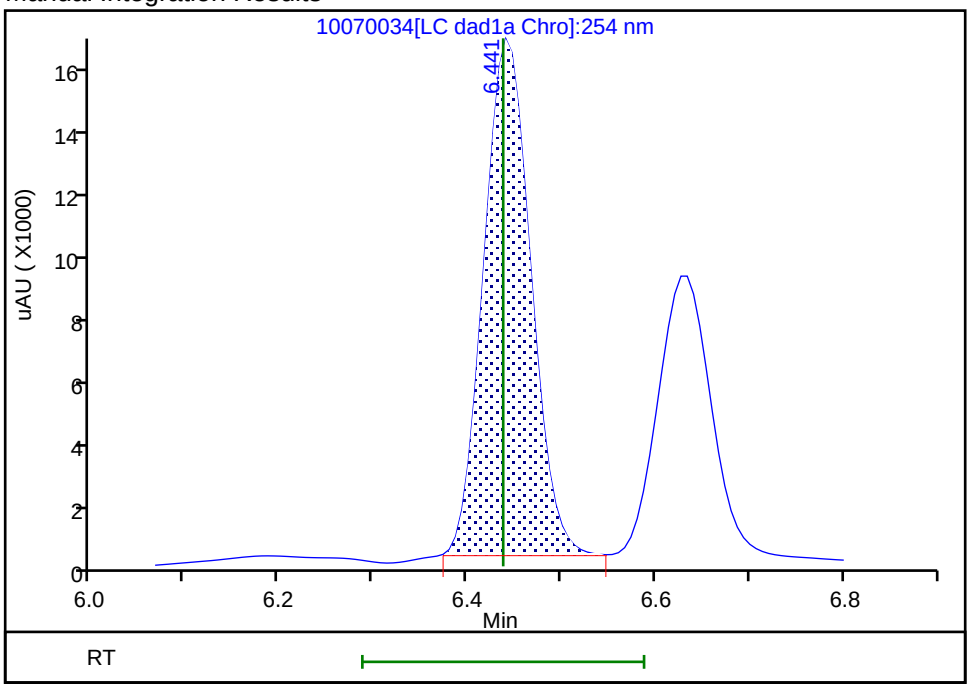
Processing Integration Results

RT: 6.44
Area: 55245
Amount: 0.244918
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 52494
Amount: 0.232722
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:04:39 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

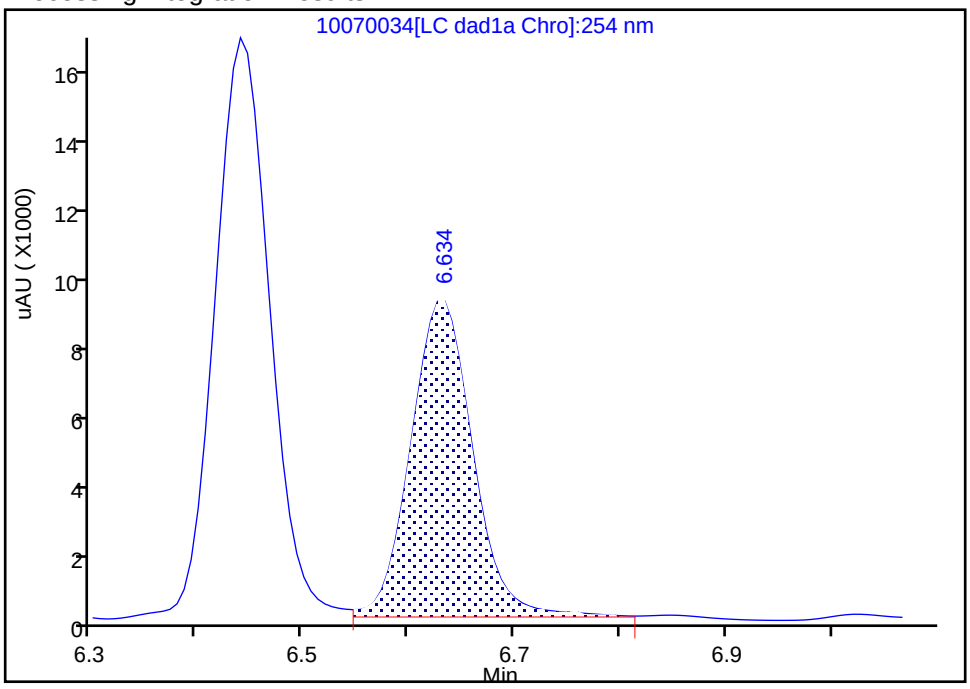
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Injection Date:	07-Oct-2023 23:47:16	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

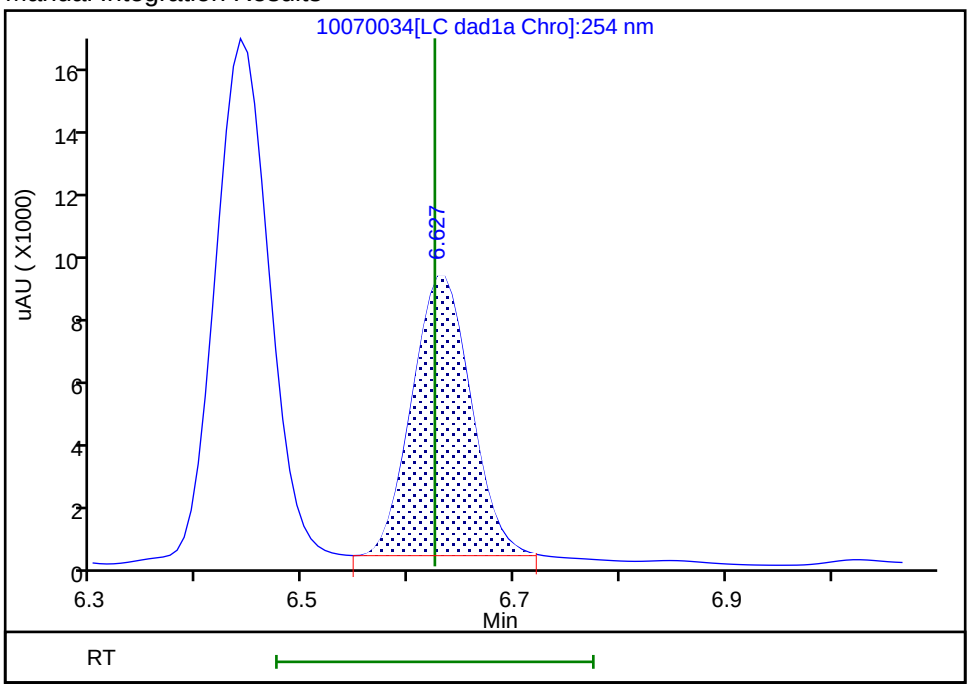
Processing Integration Results

RT: 6.63
Area: 34335
Amount: 0.239558
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 31567
Amount: 0.220246
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:04:41 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/45 Calibration Date: 10/08/2023 03:59

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070045.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	206189		258	251	2.7	20.0
HMX	Ave	94255	96308		255	250	2.2	20.0
DNX	Ave	144493	153794		266	250	6.4	20.0
MNX	Ave	138689	141680		298	292	2.2	20.0
RDX	Ave	110493	111832		253	250	1.2	20.0
Picric acid	Ave	77863	78444		252	250	0.7	20.0
1,3,5-Trinitrobenzene	Ave	216079	222232		257	250	2.8	20.0
1,3-Dinitrobenzene	Ave	293347	301872		257	250	2.9	20.0
Nitrobenzene	Ave	192696	188124		244	250	-2.4	20.0
3,5-Dinitroaniline	Lin2		217480		242	250	-3.2	20.0
Tetryl	Ave	167257	178060		266	250	6.5	20.0
Nitroglycerin	Ave	64651	68332		2640	2500	5.7	20.0
2,4,6-Trinitrotoluene	Ave	204902	210336		257	250	2.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	152088		254	250	1.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	198368		256	250	2.4	20.0
2,6-Dinitrotoluene	Ave	142638	145224		255	250	1.8	20.0
2,4-Dinitrotoluene	Ave	295706	301192		255	250	1.9	20.0
2-Nitrotoluene	Ave	126123	120816		239	250	-4.2	20.0
4-Nitrotoluene	Ave	110088	103848		236	250	-5.7	20.0
3-Nitrotoluene	Lin2		132680		241	250	-3.7	20.0
PETN	Ave	72018	76048		2640	2500	5.6	20.0
1,2-Dinitrobenzene	Ave	123911	131488		265	250	6.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/45 Calibration Date: 10/08/2023 03:59

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070045.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.35	6.55
HMX	6.57	6.42	6.72
DNX	6.77	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.94	7.79	8.09
1,3,5-Trinitrobenzene	8.64	8.49	8.79
1,3-Dinitrobenzene	9.25	9.10	9.40
Nitrobenzene	9.62	9.47	9.77
3,5-Dinitroaniline	9.84	9.68	9.98
Tetryl	9.96	9.81	10.11
Nitroglycerin	10.41	10.26	10.56
2,4,6-Trinitrotoluene	10.85	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.02	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.27	11.16	11.36
2,6-Dinitrotoluene	11.43	11.32	11.52
2,4-Dinitrotoluene	11.60	11.49	11.69
2-Nitrotoluene	12.40	12.24	12.54
4-Nitrotoluene	12.81	12.65	12.95
3-Nitrotoluene	13.37	13.21	13.51
PETN	14.49	14.32	14.62
1,2-Dinitrobenzene	8.51	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070045.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 03:59:43 ALS Bottle#: 7 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:13 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.444	6.450	-0.006	51702	0.2508	0.2575	M
4 HMX	1	6.571	6.570	0.001	24077	0.2500	0.2554	M
6 DNX	1	6.771	6.776	-0.005	38487	0.2503	0.2664	M
7 MNX	1	7.198	7.196	0.002	41335	0.2918	0.2980	M
8 RDX	1	7.578	7.576	0.002	27958	0.2500	0.2530	
9 2,4,6-Trinitrophenol	1	7.944	7.943	0.001	19611	0.2500	0.2519	
$ 10 1,2-Dinitrobenzene	1	8.511	8.516	-0.005	32872	0.2500	0.2653	
11 1,3,5-Trinitrobenzene	1	8.644	8.643	0.001	55558	0.2500	0.2571	
12 1,3-Dinitrobenzene	1	9.251	9.250	0.001	75468	0.2500	0.2573	
13 Nitrobenzene	1	9.618	9.616	0.002	47031	0.2500	0.2441	
14 3,5-Dinitroaniline	1	9.838	9.830	0.008	54370	0.2500	0.2420	
15 Tetryl	1	9.964	9.956	0.008	44515	0.2500	0.2661	
16 Nitroglycerin	2	10.411	10.410	0.001	170829	2.50	2.64	
17 2,4,6-Trinitrotoluene	1	10.851	10.843	0.008	52584	0.2500	0.2566	
18 4-Amino-2,6-dinitrotoluene	1	11.018	11.010	0.008	38022	0.2500	0.2542	
19 2-Amino-4,6-dinitrotoluene	1	11.271	11.256	0.015	49592	0.2500	0.2560	
20 2,6-Dinitrotoluene	1	11.431	11.423	0.008	36306	0.2500	0.2545	
21 2,4-Dinitrotoluene	1	11.598	11.590	0.008	75298	0.2500	0.2546	
22 o-Nitrotoluene	1	12.404	12.390	0.014	30204	0.2500	0.2395	
23 p-Nitrotoluene	1	12.811	12.796	0.015	25962	0.2500	0.2358	
24 m-Nitrotoluene	1	13.371	13.356	0.015	33170	0.2500	0.2408	
25 PETN	2	14.491	14.470	0.021	190121	2.50	2.64	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

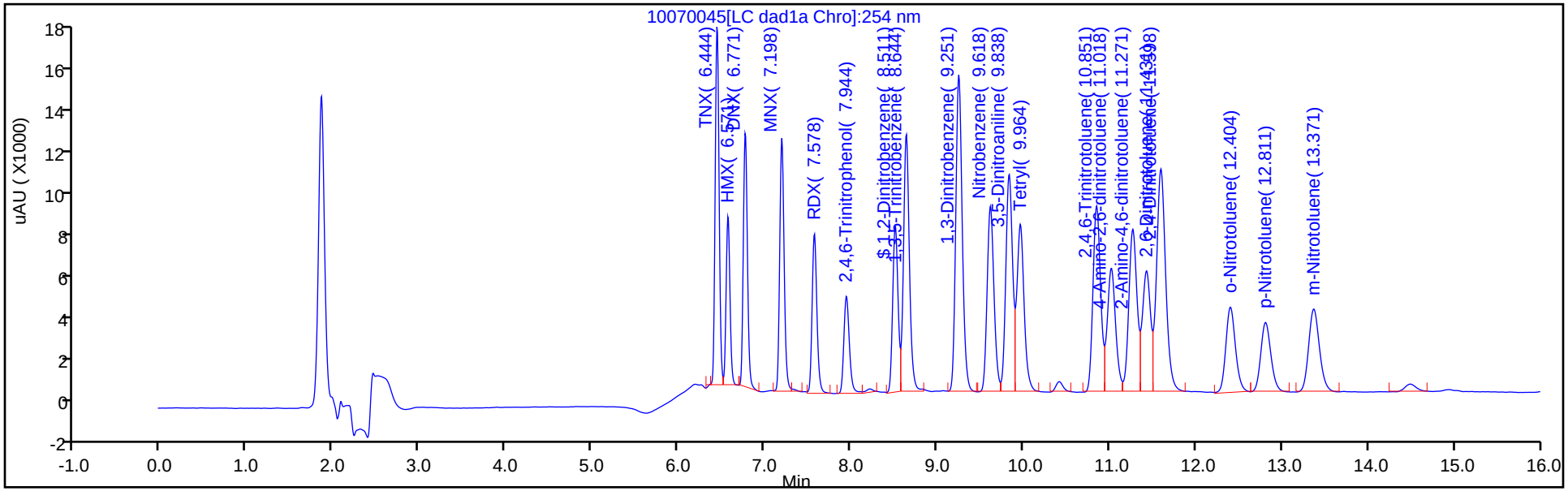
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Eurofins Denver

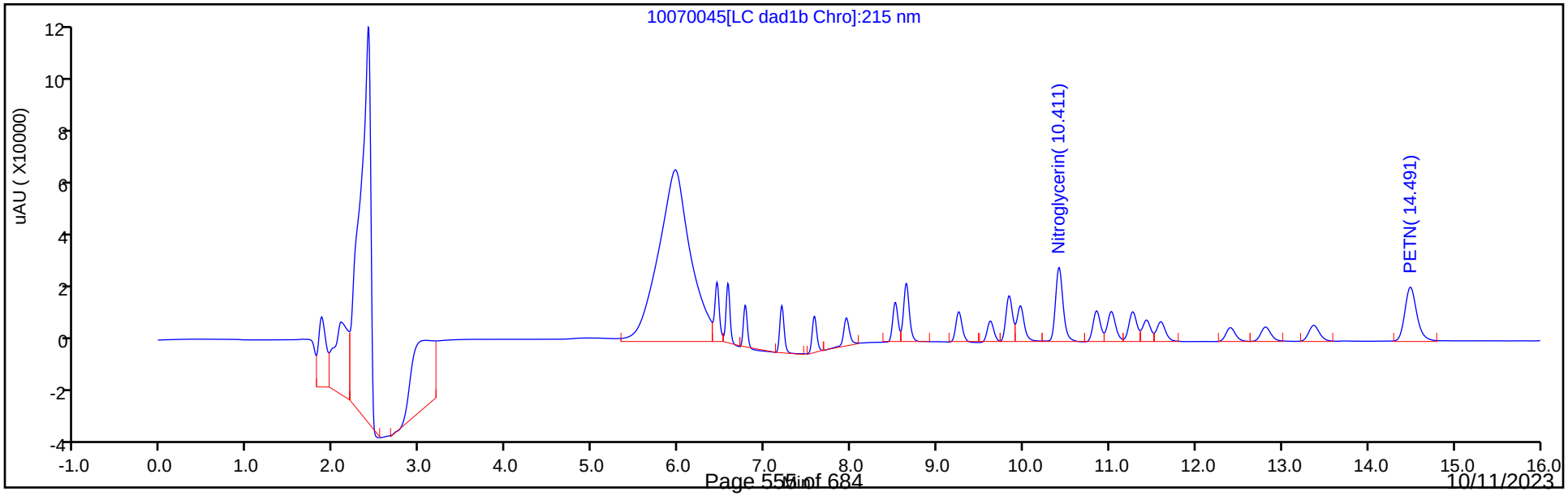
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Injection Date:	08-Oct-2023 03:59:43	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	45
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

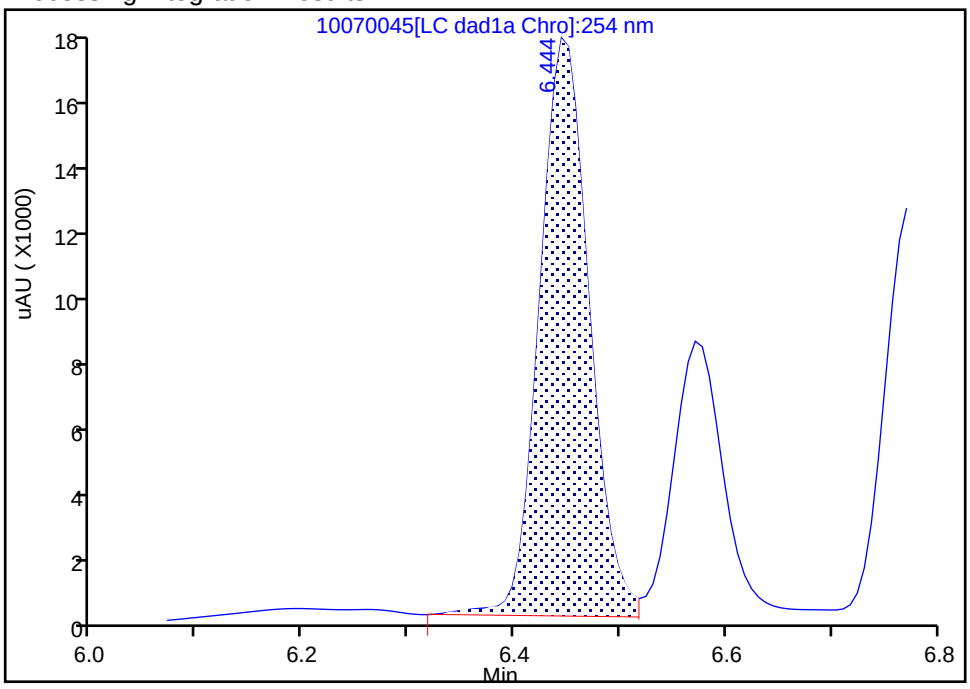
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Injection Date:	08-Oct-2023 03:59:43	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

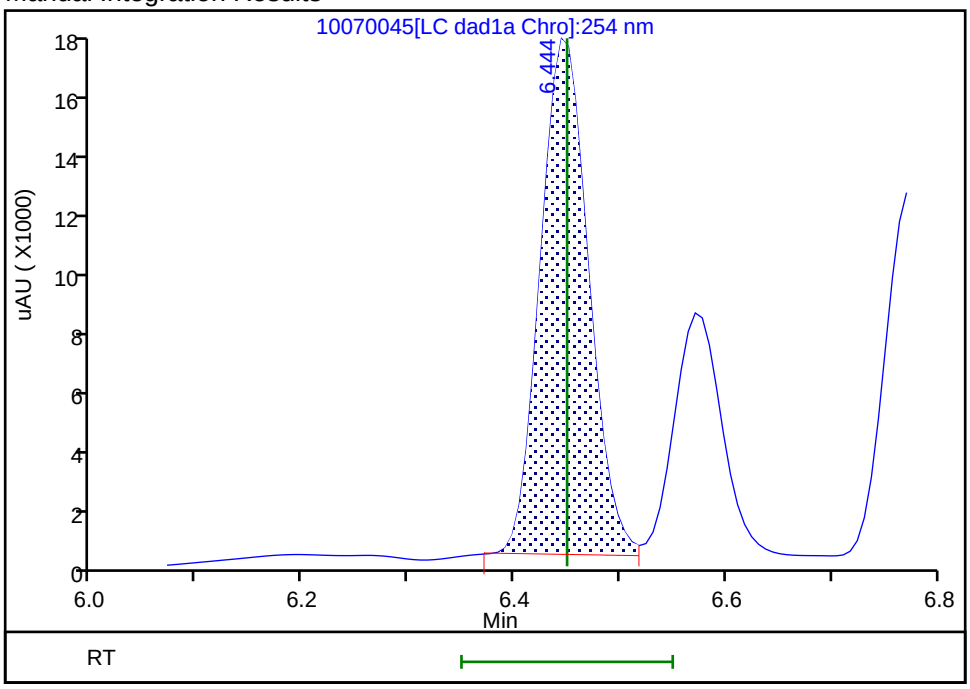
Processing Integration Results

RT: 6.44
Area: 53975
Amount: 0.268852
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 51702
Amount: 0.257530
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:08:59 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

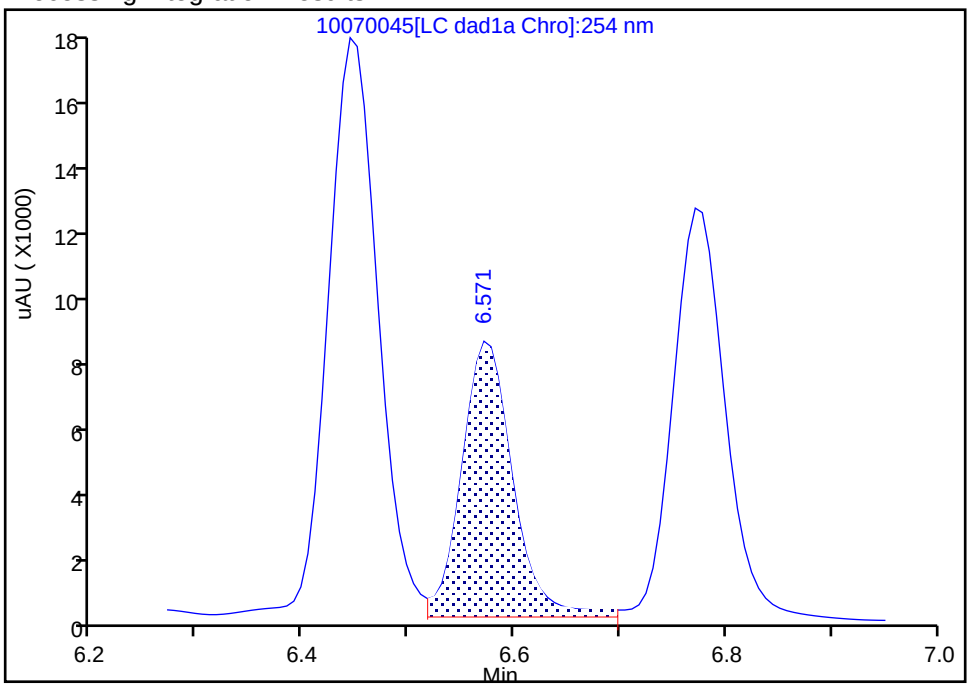
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Injection Date:	08-Oct-2023 03:59:43	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

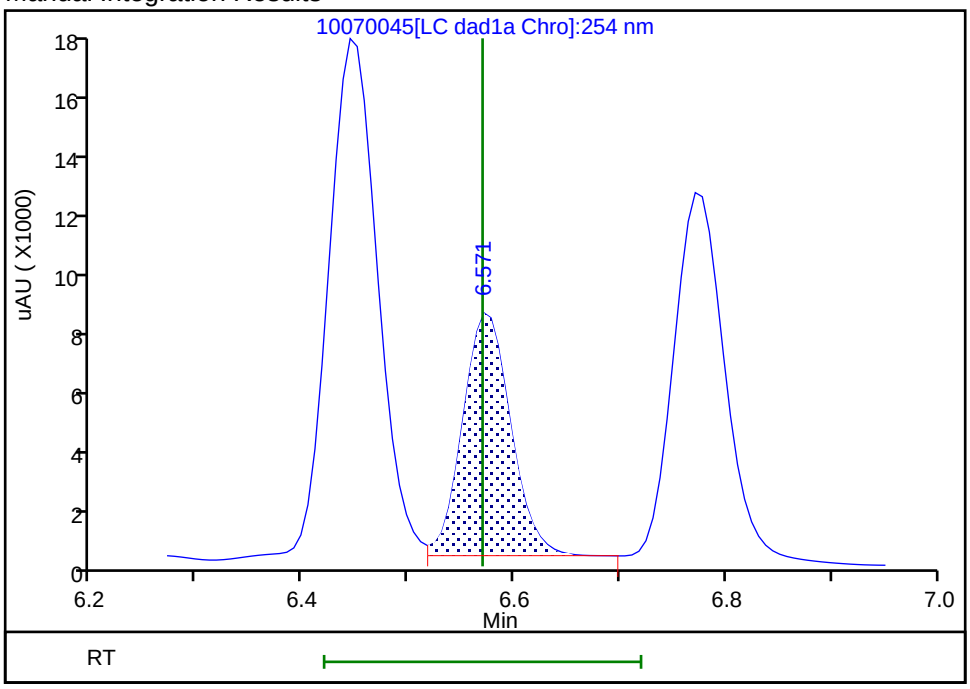
Processing Integration Results

RT: 6.57
Area: 26394
Amount: 0.280027
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 24077
Amount: 0.255444
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:08:51 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

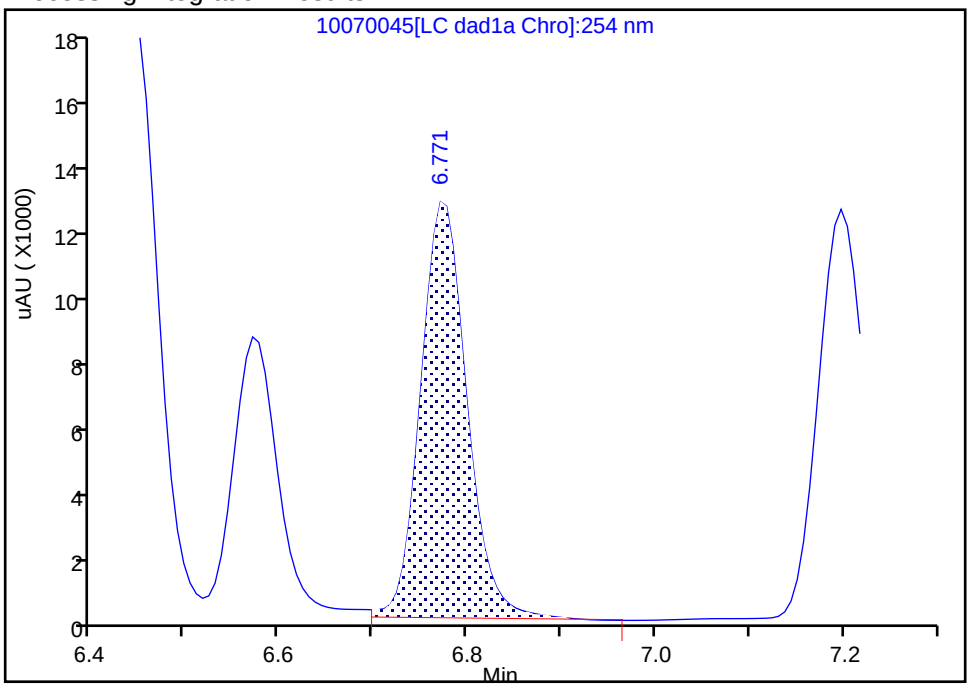
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Injection Date:	08-Oct-2023 03:59:43	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

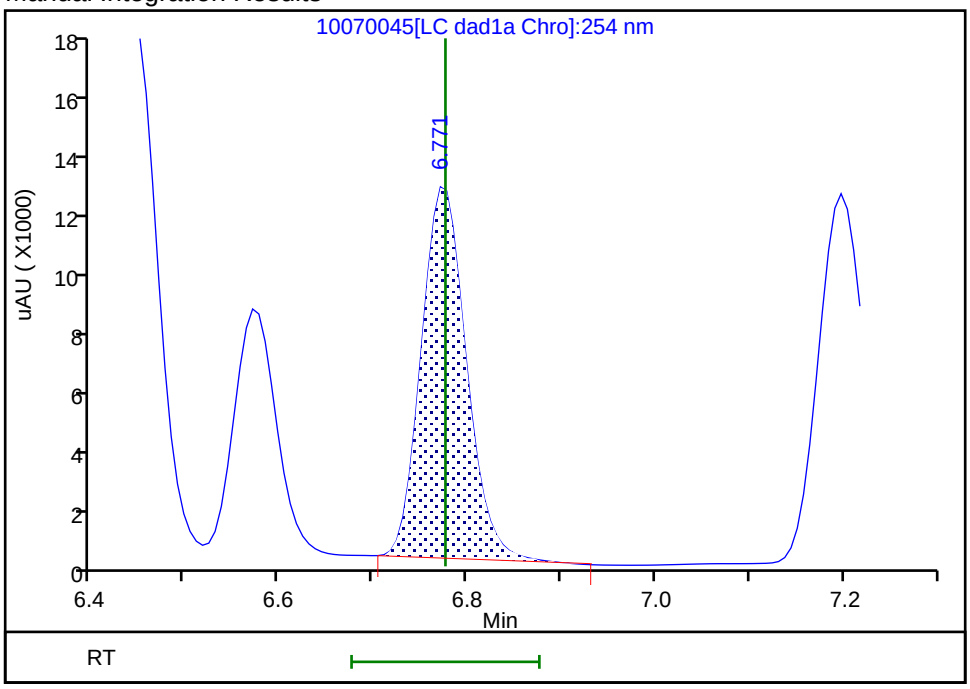
Processing Integration Results

RT: 6.77
Area: 40208
Amount: 0.278270
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 38487
Amount: 0.266359
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:08:56 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

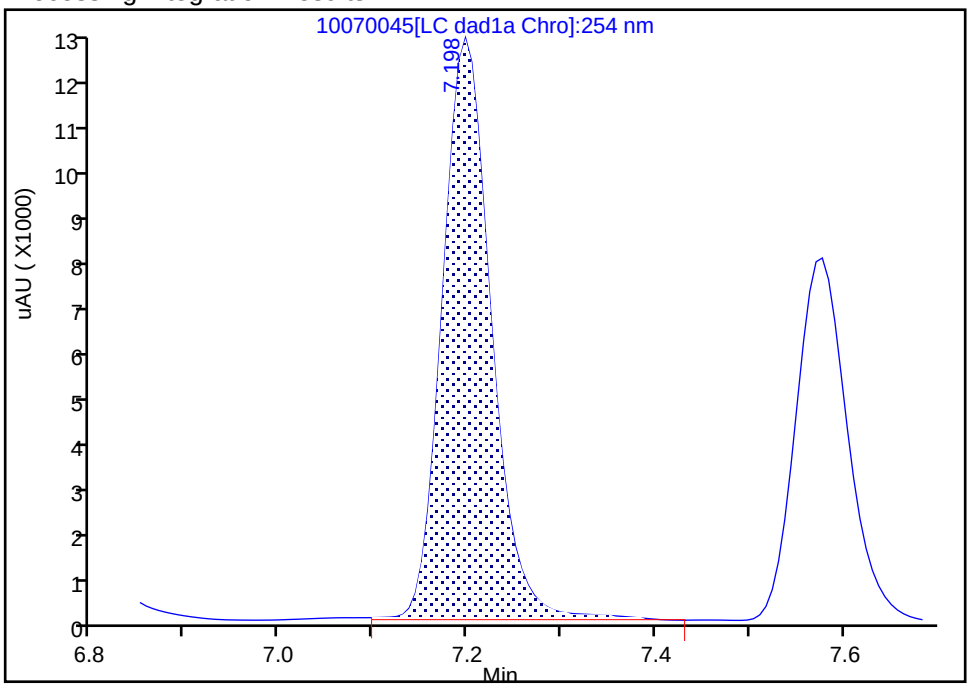
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070045.d				
Injection Date:	08-Oct-2023 03:59:43	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

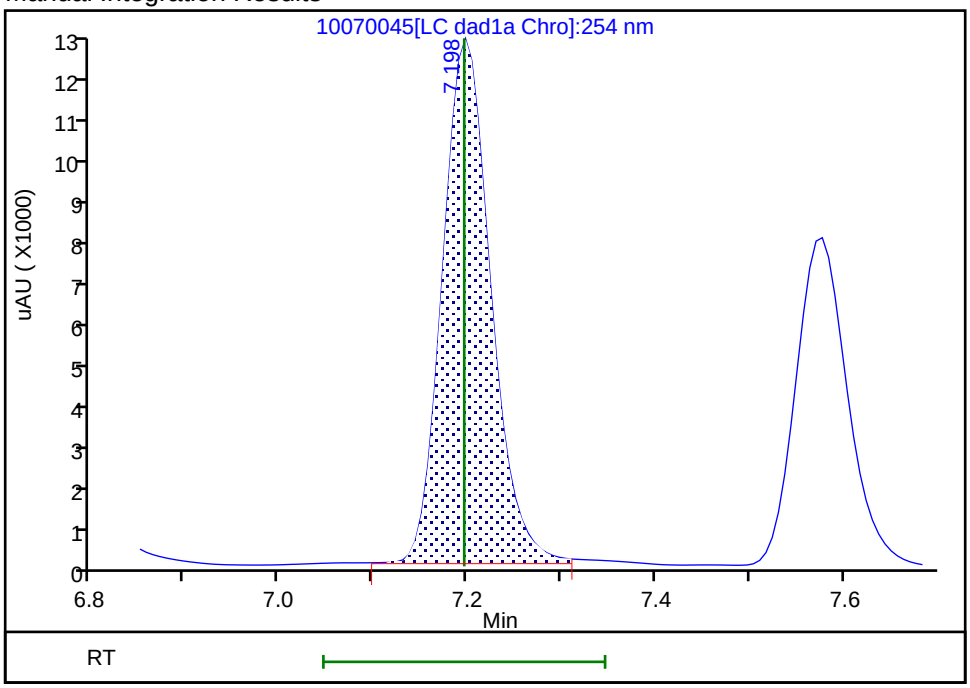
Processing Integration Results

RT: 7.20
Area: 41757
Amount: 0.301085
Amount Units: ug/mL



Manual Integration Results

RT: 7.20
Area: 41335
Amount: 0.298042
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:09:17 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/46 | Calibration Date: 10/08/2023 04:22

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/24/2023 00:23

Lab File ID: 10070046.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	208608		231	250	-7.5	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	124288		217	250	-13.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/46 Calibration Date: 10/08/2023 04:22

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070046.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070046.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 04:22:40 ALS Bottle#: 8 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:14 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:09:41

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.439	6.438	0.001	52152	0.2500	0.2312	M
5 2,4-diamino-6-nitrotoluene	1	6.625	6.625	0.000	31072	0.2500	0.2168	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

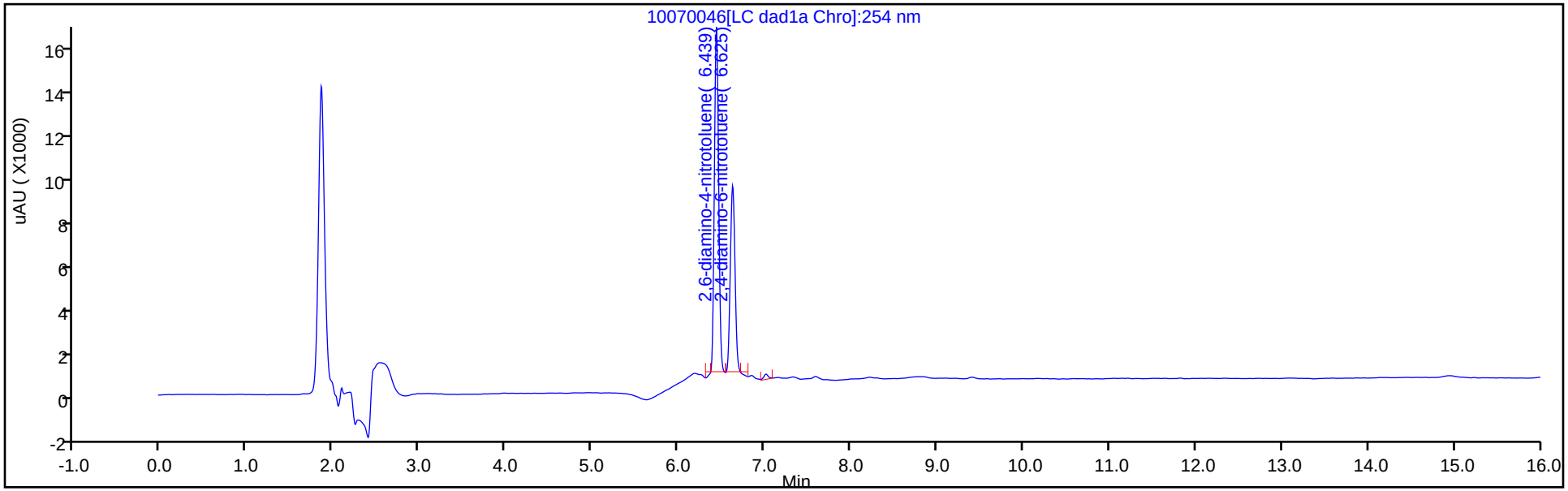
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Eurofins Denver

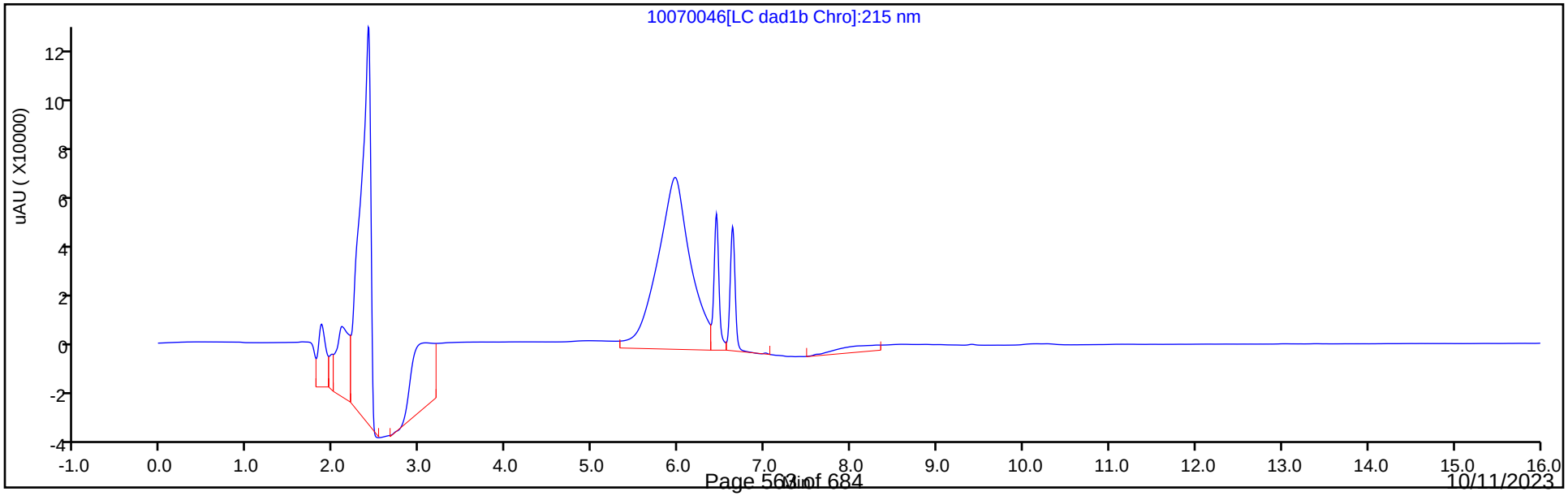
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070046.d

Injection Date:	08-Oct-2023 04:22:40	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	46
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

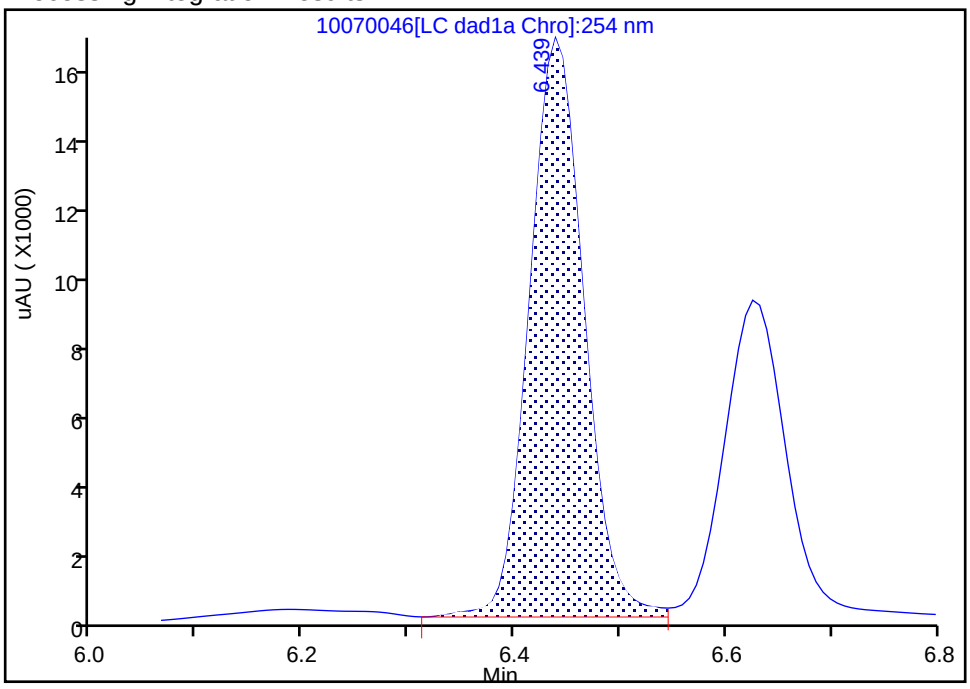
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070046.d
Injection Date: 08-Oct-2023 04:22:40 Instrument ID: CHHPLC_X3
Lims ID: CCV ADD
Client ID:
Operator ID: JZ/JG ALS Bottle#: 8 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

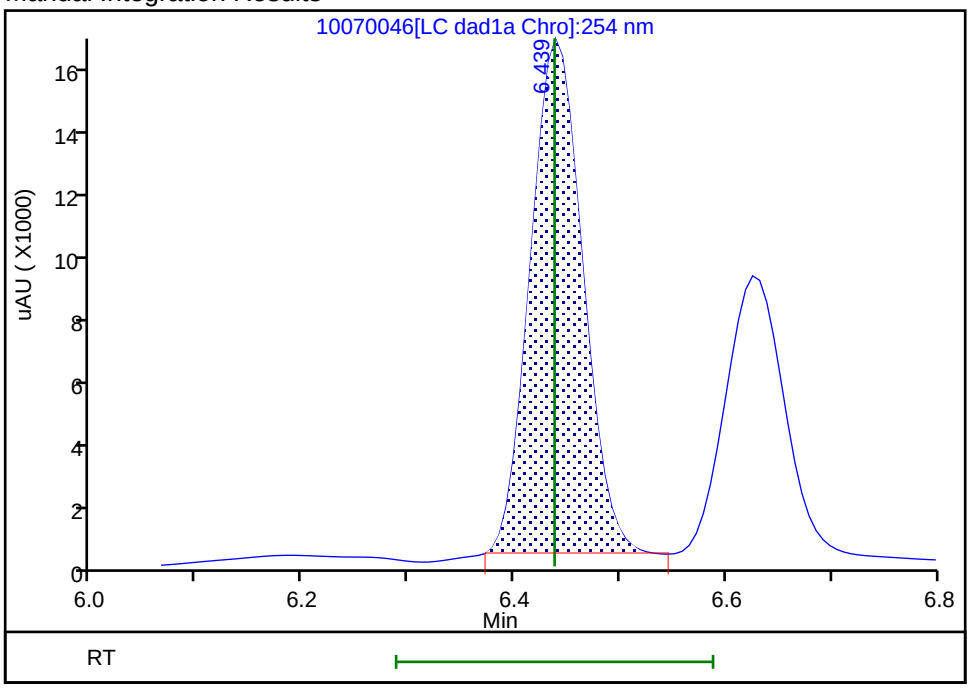
Processing Integration Results

RT: 6.44
Area: 54836
Amount: 0.243105
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 52152
Amount: 0.231206
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:09:35 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

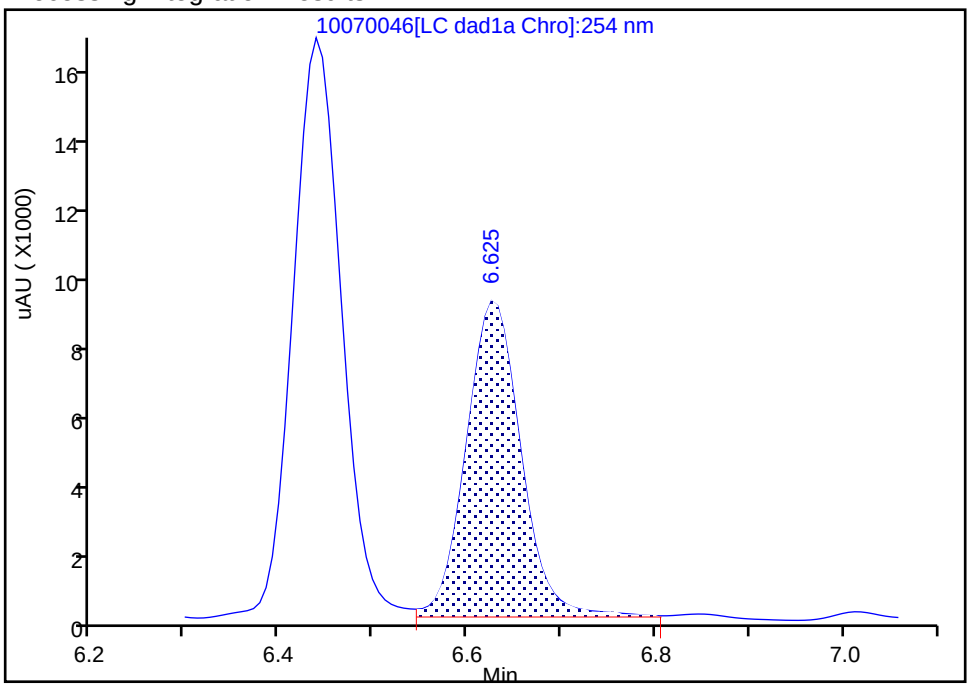
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Injection Date:	08-Oct-2023 04:22:40	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

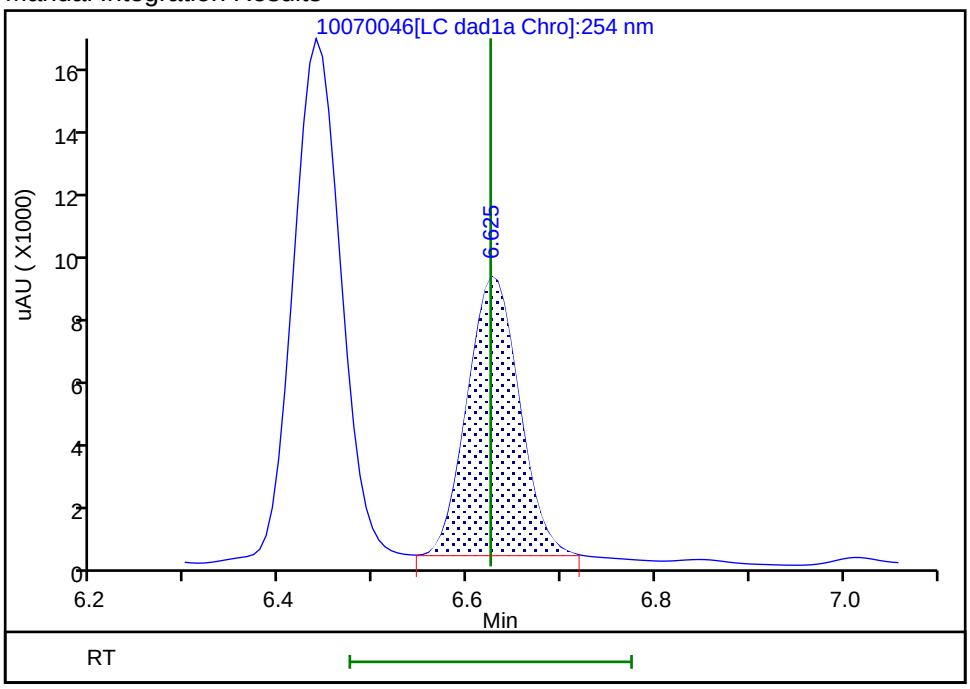
Processing Integration Results

RT: 6.63
Area: 33800
Amount: 0.235826
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 31072
Amount: 0.216792
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:09:40 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/57 | Calibration Date: 10/08/2023 08:35

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10070057.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	204056		255	251	1.6	20.0
HMX	Ave	94255	96828		257	250	2.7	20.0
DNX	Ave	144493	153602		266	250	6.3	20.0
MNX	Ave	138689	140483		296	292	1.3	20.0
RDX	Ave	110493	110912		251	250	0.4	20.0
Picric acid	Ave	77863	79596		256	250	2.2	20.0
1,3,5-Trinitrobenzene	Ave	216079	226872		262	250	5.0	20.0
1,3-Dinitrobenzene	Ave	293347	302100		257	250	3.0	20.0
Nitrobenzene	Ave	192696	184964		240	250	-4.0	20.0
3,5-Dinitroaniline	Lin2		215676		240	250	-4.0	20.0
Tetryl	Ave	167257	179472		268	250	7.3	20.0
Nitroglycerin	Ave	64651	70709		2730	2500	9.4	20.0
2,4,6-Trinitrotoluene	Ave	204902	208772		255	250	1.9	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	153680		257	250	2.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	194572		251	250	0.4	20.0
2,6-Dinitrotoluene	Ave	142638	146444		257	250	2.7	20.0
2,4-Dinitrotoluene	Ave	295706	305072		258	250	3.2	20.0
2-Nitrotoluene	Ave	126123	119180		236	250	-5.5	20.0
4-Nitrotoluene	Ave	110088	102860		234	250	-6.6	20.0
3-Nitrotoluene	Lin2		131048		238	250	-4.9	20.0
PETN	Ave	72018	76320		2650	2500	6.0	20.0
1,2-Dinitrobenzene	Ave	123911	130416		263	250	5.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/57 Calibration Date: 10/08/2023 08:35

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070057.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.45	6.35	6.55
HMX	6.57	6.42	6.72
DNX	6.77	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.96	7.79	8.09
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.26	9.10	9.40
Nitrobenzene	9.63	9.47	9.77
3,5-Dinitroaniline	9.85	9.68	9.98
Tetryl	9.99	9.81	10.11
Nitroglycerin	10.43	10.26	10.56
2,4,6-Trinitrotoluene	10.87	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.04	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.29	11.16	11.36
2,6-Dinitrotoluene	11.45	11.32	11.52
2,4-Dinitrotoluene	11.61	11.49	11.69
2-Nitrotoluene	12.43	12.24	12.54
4-Nitrotoluene	12.83	12.65	12.95
3-Nitrotoluene	13.39	13.21	13.51
PETN	14.53	14.32	14.62
1,2-Dinitrobenzene	8.53	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070057.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 08:35:05 ALS Bottle#: 7 Worklist Smp#: 57
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:21 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:13:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.445	6.450	-0.005	51167	0.2508	0.2549	M
4 HMX	1	6.572	6.570	0.002	24207	0.2500	0.2568	M
6 DNX	1	6.772	6.776	-0.004	38439	0.2503	0.2660	M
7 MNX	1	7.199	7.196	0.003	40986	0.2918	0.2955	
8 RDX	1	7.579	7.576	0.003	27728	0.2500	0.2509	
9 2,4,6-Trinitrophenol	1	7.959	7.943	0.016	19899	0.2500	0.2556	
$ 10 1,2-Dinitrobenzene	1	8.525	8.516	0.009	32604	0.2500	0.2631	
11 1,3,5-Trinitrobenzene	1	8.652	8.643	0.009	56718	0.2500	0.2625	
12 1,3-Dinitrobenzene	1	9.259	9.250	0.009	75525	0.2500	0.2575	
13 Nitrobenzene	1	9.632	9.616	0.016	46241	0.2500	0.2400	
14 3,5-Dinitroaniline	1	9.852	9.830	0.022	53919	0.2500	0.2400	
15 Tetryl	1	9.985	9.956	0.029	44868	0.2500	0.2683	
16 Nitroglycerin	2	10.432	10.410	0.022	176772	2.50	2.73	
17 2,4,6-Trinitrotoluene	1	10.865	10.843	0.022	52193	0.2500	0.2547	
18 4-Amino-2,6-dinitrotoluene	1	11.039	11.010	0.029	38420	0.2500	0.2569	
19 2-Amino-4,6-dinitrotoluene	1	11.292	11.256	0.036	48643	0.2500	0.2511	
20 2,6-Dinitrotoluene	1	11.445	11.423	0.022	36611	0.2500	0.2567	
21 2,4-Dinitrotoluene	1	11.612	11.590	0.022	76268	0.2500	0.2579	
22 o-Nitrotoluene	1	12.425	12.390	0.035	29795	0.2500	0.2362	
23 p-Nitrotoluene	1	12.832	12.796	0.036	25715	0.2500	0.2336	
24 m-Nitrotoluene	1	13.392	13.356	0.036	32762	0.2500	0.2377	
25 PETN	2	14.525	14.470	0.055	190799	2.50	2.65	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

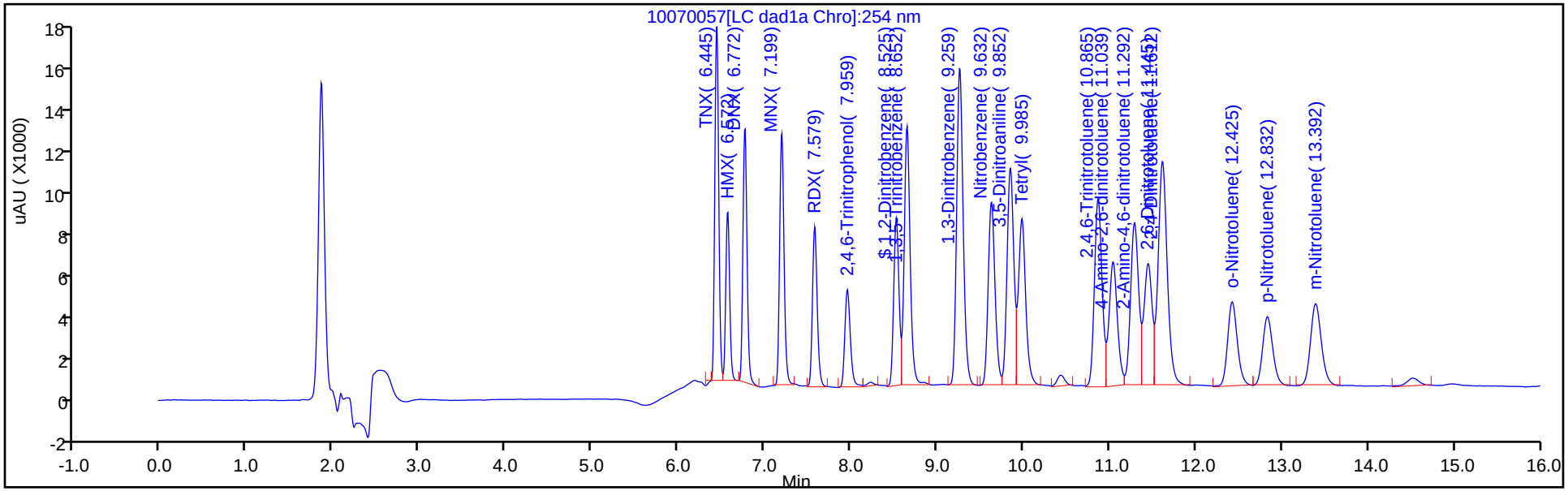
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Eurofins Denver

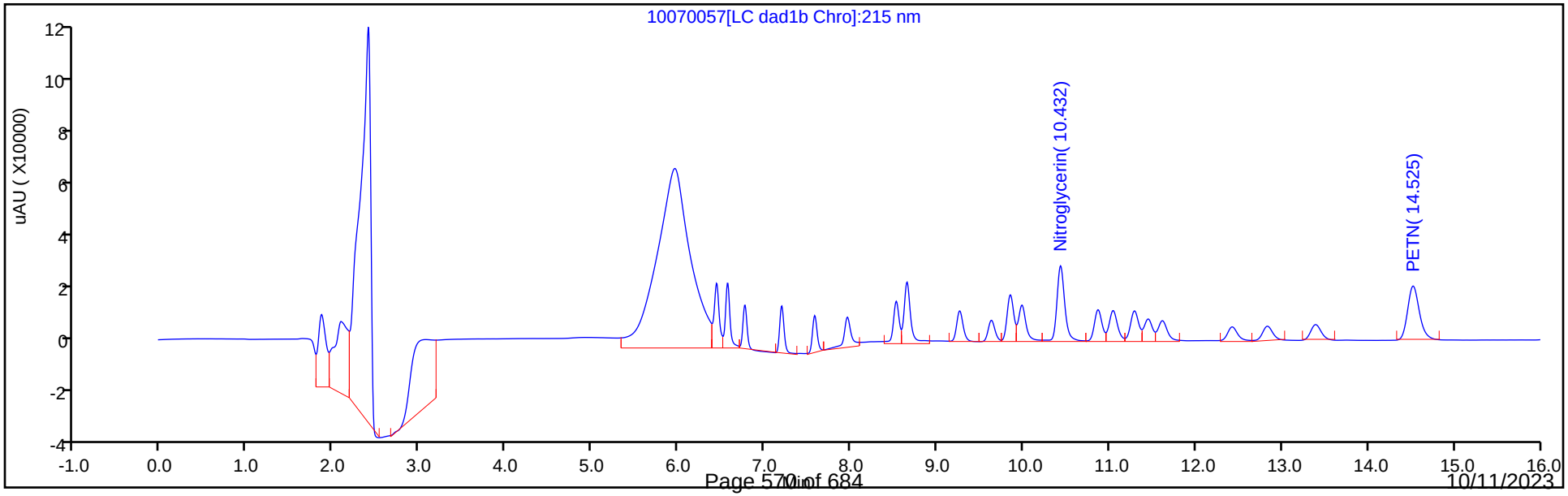
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070057.d

Injection Date:	08-Oct-2023 08:35:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	57
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

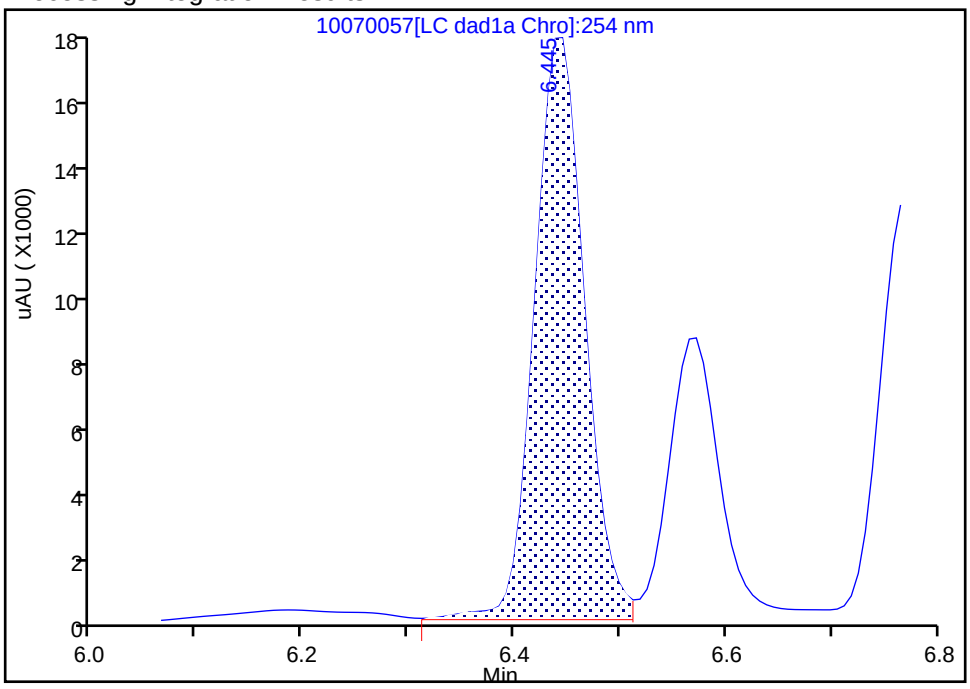
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Injection Date:	08-Oct-2023 08:35:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	57
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

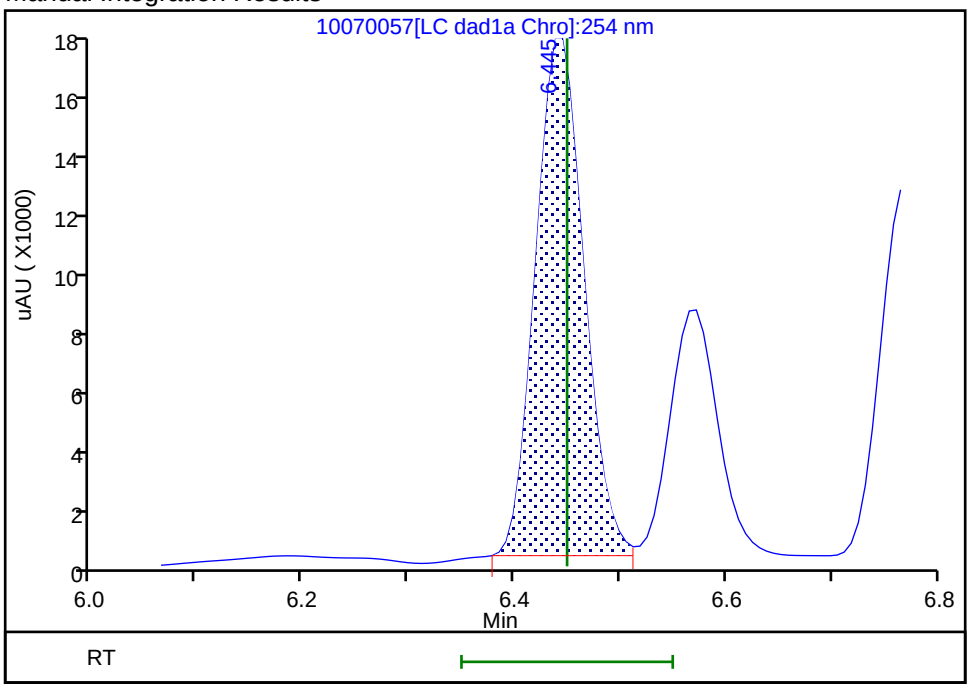
Processing Integration Results

RT: 6.45
Area: 53616
Amount: 0.267064
Amount Units: ug/mL



Manual Integration Results

RT: 6.45
Area: 51167
Amount: 0.254865
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:13:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

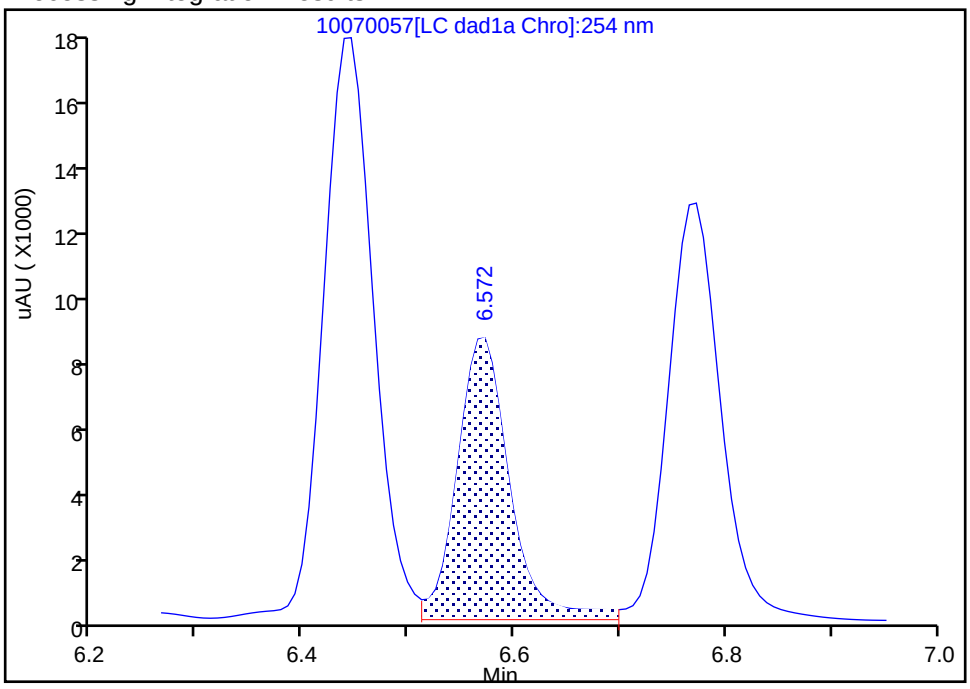
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Injection Date:	08-Oct-2023 08:35:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	57
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

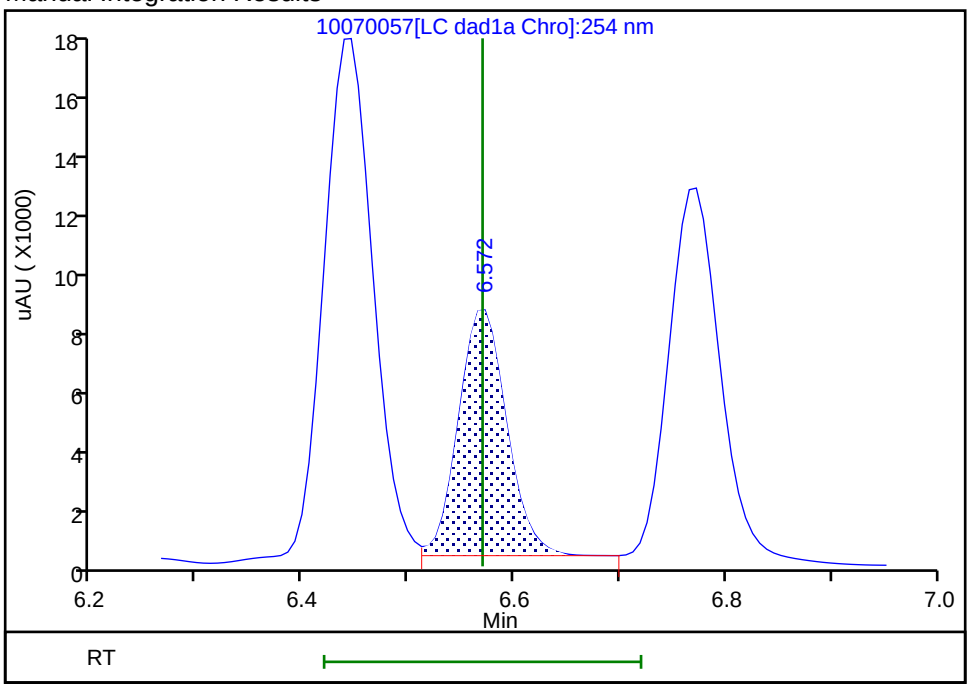
Processing Integration Results

RT: 6.57
Area: 27108
Amount: 0.287602
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 24207
Amount: 0.256824
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:13:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

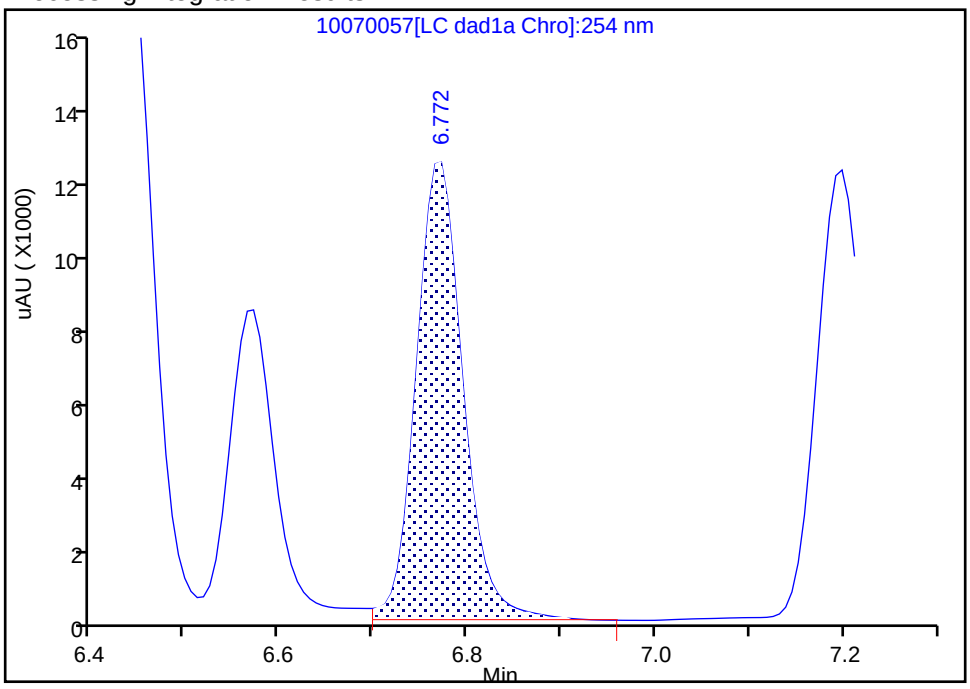
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Injection Date:	08-Oct-2023 08:35:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	57
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

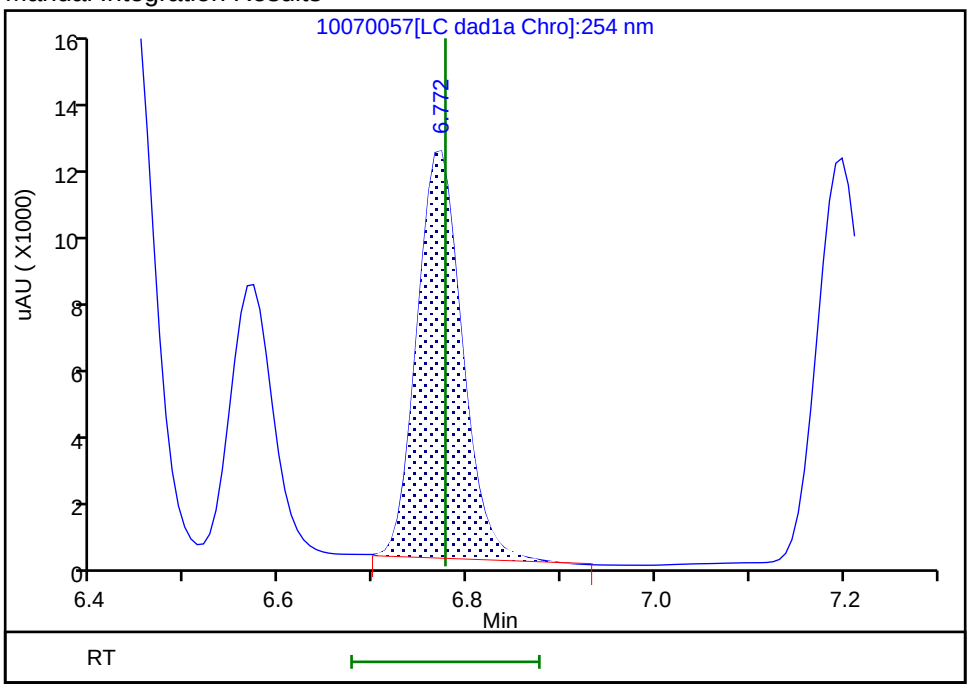
Processing Integration Results

RT: 6.77
Area: 40435
Amount: 0.279841
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 38439
Amount: 0.266027
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:13:30 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/58 | Calibration Date: 10/08/2023 08:58

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/24/2023 00:23

Lab File ID: 10070058.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	208956		232	250	-7.4	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	124088		216	250	-13.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/58 Calibration Date: 10/08/2023 08:58

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070058.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070058.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 08:58:03 ALS Bottle#: 8 Worklist Smp#: 58
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:22 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.440	6.438	0.002	52239	0.2500	0.2316	M
5 2,4-diamino-6-nitrotoluene	1	6.626	6.625	0.001	31022	0.2500	0.2164	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

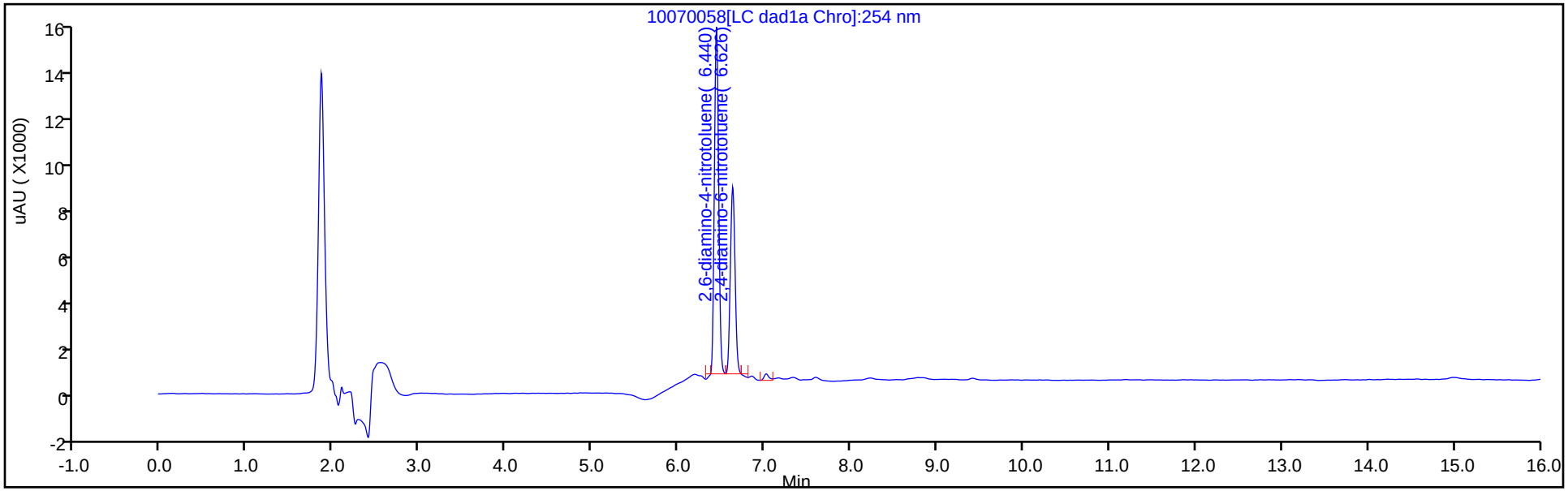
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Eurofins Denver

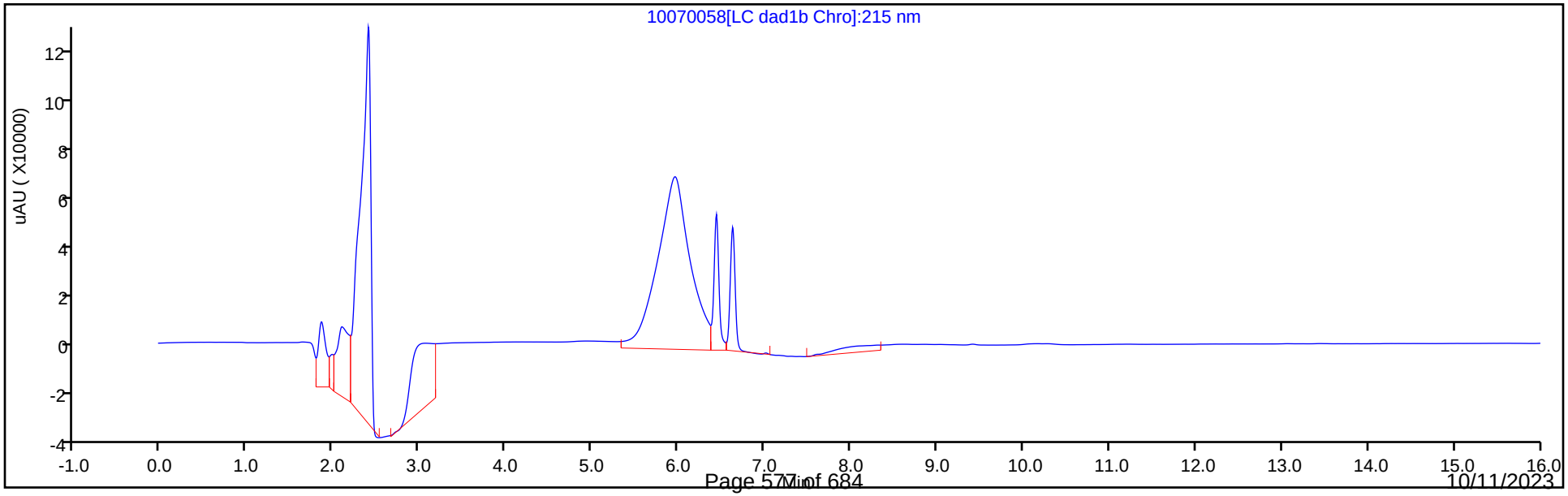
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070058.d

Injection Date:	08-Oct-2023 08:58:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	58
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

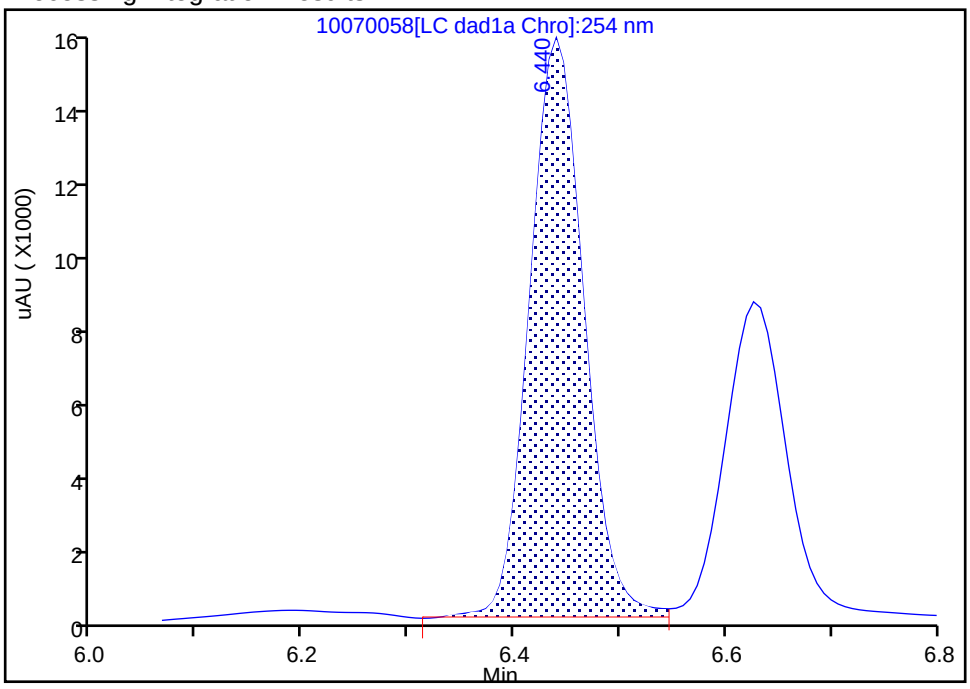
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070058.d
Injection Date: 08-Oct-2023 08:58:03 Instrument ID: CHHPLC_X3
Lims ID: CCV ADD
Client ID:
Operator ID: JZ/JG ALS Bottle#: 8 Worklist Smp#: 58
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

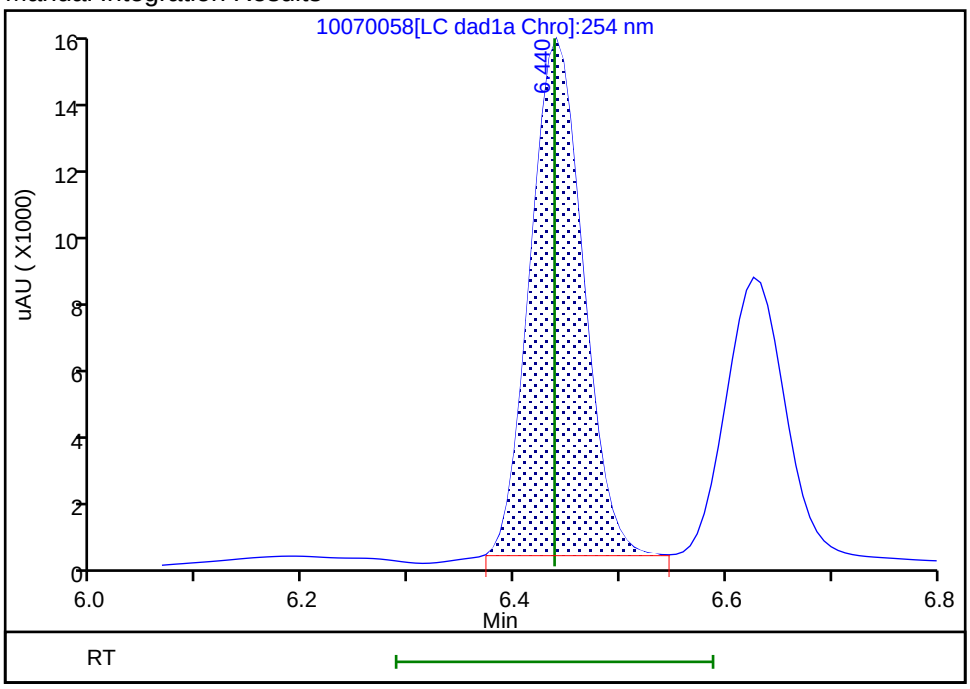
Processing Integration Results

RT: 6.44
Area: 54699
Amount: 0.242497
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 52239
Amount: 0.231592
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:03 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

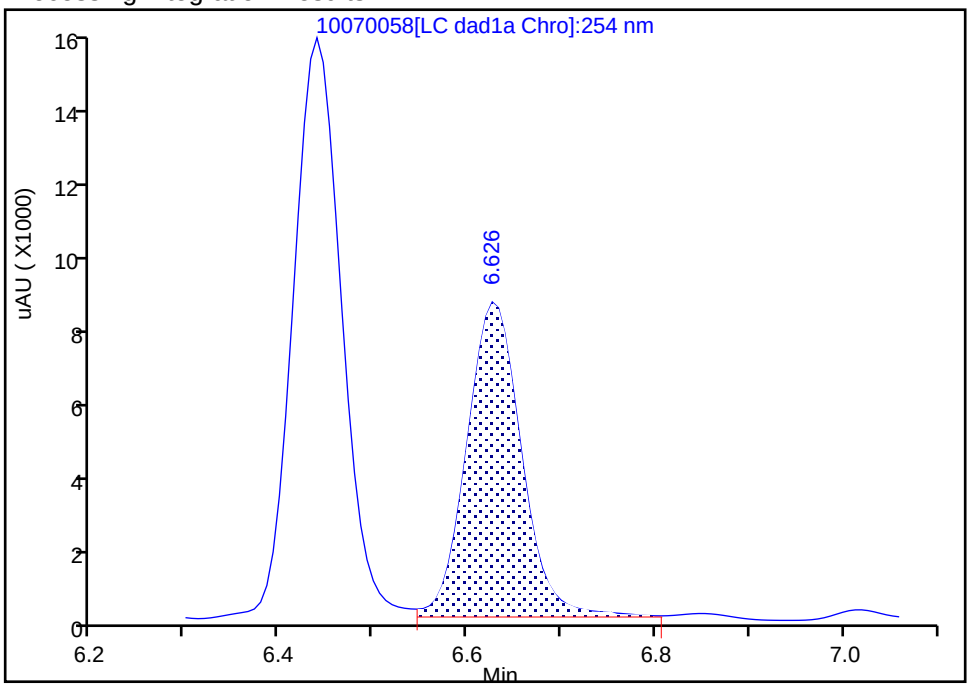
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Injection Date:	08-Oct-2023 08:58:03	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	58
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

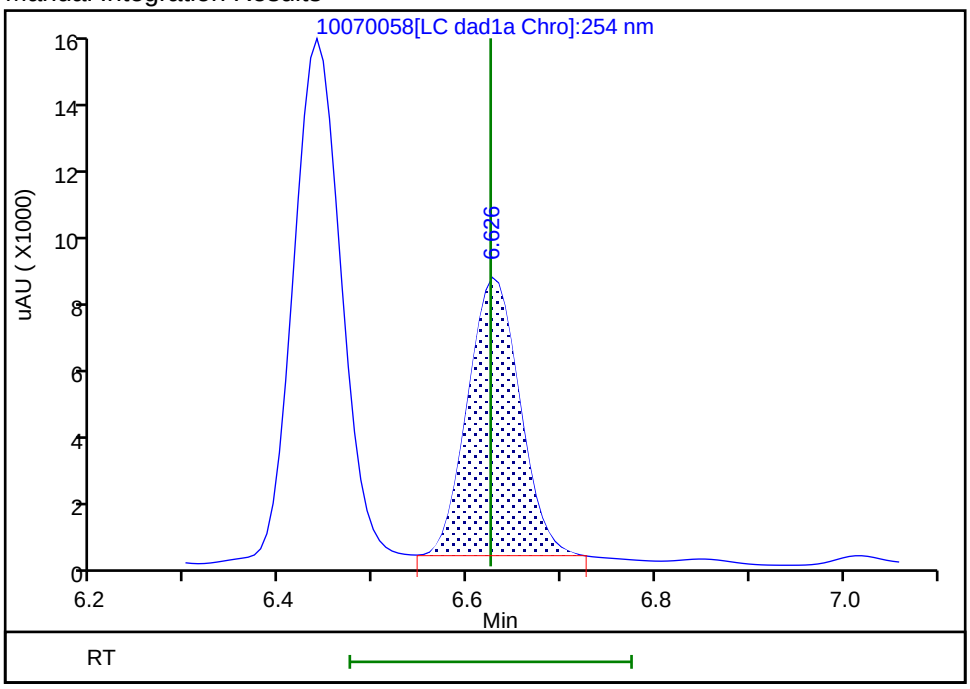
Processing Integration Results

RT: 6.63
Area: 33584
Amount: 0.234319
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 31022
Amount: 0.216443
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:14:05 -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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/63 Calibration Date: 10/08/2023 10:52

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070063.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	203757		254	251	1.5	20.0
HMX	Ave	94255	97016		257	250	2.9	20.0
DNX	Ave	144493	153998		267	250	6.6	20.0
MNX	Ave	138689	138711		292	292	0.0	20.0
RDX	Ave	110493	112300		254	250	1.6	20.0
Picric acid	Ave	77863	78888		253	250	1.3	20.0
1,3,5-Trinitrobenzene	Ave	216079	223344		258	250	3.4	20.0
1,3-Dinitrobenzene	Ave	293347	301952		257	250	2.9	20.0
Nitrobenzene	Ave	192696	183752		238	250	-4.6	20.0
3,5-Dinitroaniline	Lin2		221144		246	250	-1.6	20.0
Tetryl	Ave	167257	174716		261	250	4.5	20.0
Nitroglycerin	Ave	64651	68640		2650	2500	6.2	20.0
2,4,6-Trinitrotoluene	Ave	204902	210140		256	250	2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	152276		255	250	1.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	199060		257	250	2.8	20.0
2,6-Dinitrotoluene	Ave	142638	144104		253	250	1.0	20.0
2,4-Dinitrotoluene	Ave	295706	301516		255	250	2.0	20.0
2-Nitrotoluene	Ave	126123	117864		234	250	-6.5	20.0
4-Nitrotoluene	Ave	110088	102556		233	250	-6.8	20.0
3-Nitrotoluene	Lin2		130164		236	250	-5.6	20.0
PETN	Ave	72018	76218		2650	2500	5.8	20.0
1,2-Dinitrobenzene	Ave	123911	129252		261	250	4.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/63 Calibration Date: 10/08/2023 10:52

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10070063.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.35	6.55
HMX	6.57	6.42	6.72
DNX	6.77	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.57	7.43	7.73
Picric acid	7.94	7.79	8.09
1,3,5-Trinitrobenzene	8.64	8.49	8.79
1,3-Dinitrobenzene	9.24	9.10	9.40
Nitrobenzene	9.61	9.47	9.77
3,5-Dinitroaniline	9.82	9.68	9.98
Tetryl	9.96	9.81	10.11
Nitroglycerin	10.40	10.26	10.56
2,4,6-Trinitrotoluene	10.84	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.00	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.25	11.16	11.36
2,6-Dinitrotoluene	11.42	11.32	11.52
2,4-Dinitrotoluene	11.58	11.49	11.69
2-Nitrotoluene	12.39	12.24	12.54
4-Nitrotoluene	12.80	12.65	12.95
3-Nitrotoluene	13.35	13.21	13.51
PETN	14.47	14.32	14.62
1,2-Dinitrobenzene	8.51	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070063.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 10:52:55 ALS Bottle#: 7 Worklist Smp#: 63
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:25 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:26

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3	TNX	1	6.443	6.450	-0.007	51092	0.2508	0.2545	M
4	HMX	1	6.570	6.570	0.000	24254	0.2500	0.2573	M
6	DNX	1	6.770	6.776	-0.006	38538	0.2503	0.2667	M
7	MNX	1	7.196	7.196	0.000	40469	0.2918	0.2918	M
8	RDX	1	7.570	7.576	-0.006	28075	0.2500	0.2541	
9	2,4,6-Trinitrophenol	1	7.943	7.943	0.000	19722	0.2500	0.2533	
$ 10	1,2-Dinitrobenzene	1	8.510	8.516	-0.006	32313	0.2500	0.2608	
11	1,3,5-Trinitrobenzene	1	8.636	8.643	-0.007	55836	0.2500	0.2584	
12	1,3-Dinitrobenzene	1	9.243	9.250	-0.007	75488	0.2500	0.2573	
13	Nitrobenzene	1	9.609	9.616	-0.007	45938	0.2500	0.2384	
14	3,5-Dinitroaniline	1	9.823	9.830	-0.007	55286	0.2500	0.2461	
15	Tetryl	1	9.956	9.956	0.000	43679	0.2500	0.2611	
16	Nitroglycerin	2	10.403	10.410	-0.007	171601	2.50	2.65	
17	2,4,6-Trinitrotoluene	1	10.836	10.843	-0.007	52535	0.2500	0.2564	
18	4-Amino-2,6-dinitrotoluene	1	11.003	11.010	-0.007	38069	0.2500	0.2545	
19	2-Amino-4,6-dinitrotoluene	1	11.249	11.256	-0.007	49765	0.2500	0.2569	
20	2,6-Dinitrotoluene	1	11.416	11.423	-0.007	36026	0.2500	0.2526	
21	2,4-Dinitrotoluene	1	11.583	11.590	-0.007	75379	0.2500	0.2549	
22	o-Nitrotoluene	1	12.389	12.390	-0.001	29466	0.2500	0.2336	
23	p-Nitrotoluene	1	12.796	12.796	0.000	25639	0.2500	0.2329	
24	m-Nitrotoluene	1	13.349	13.356	-0.007	32541	0.2500	0.2361	
25	PETN	2	14.469	14.470	-0.001	190546	2.50	2.65	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

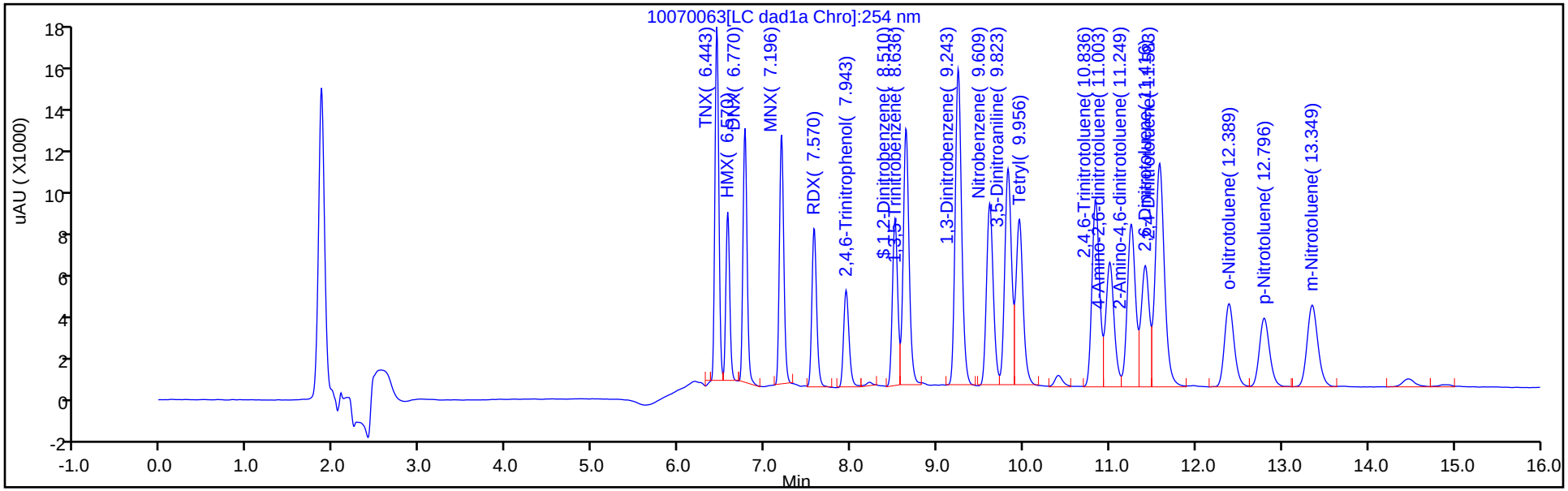
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Eurofins Denver

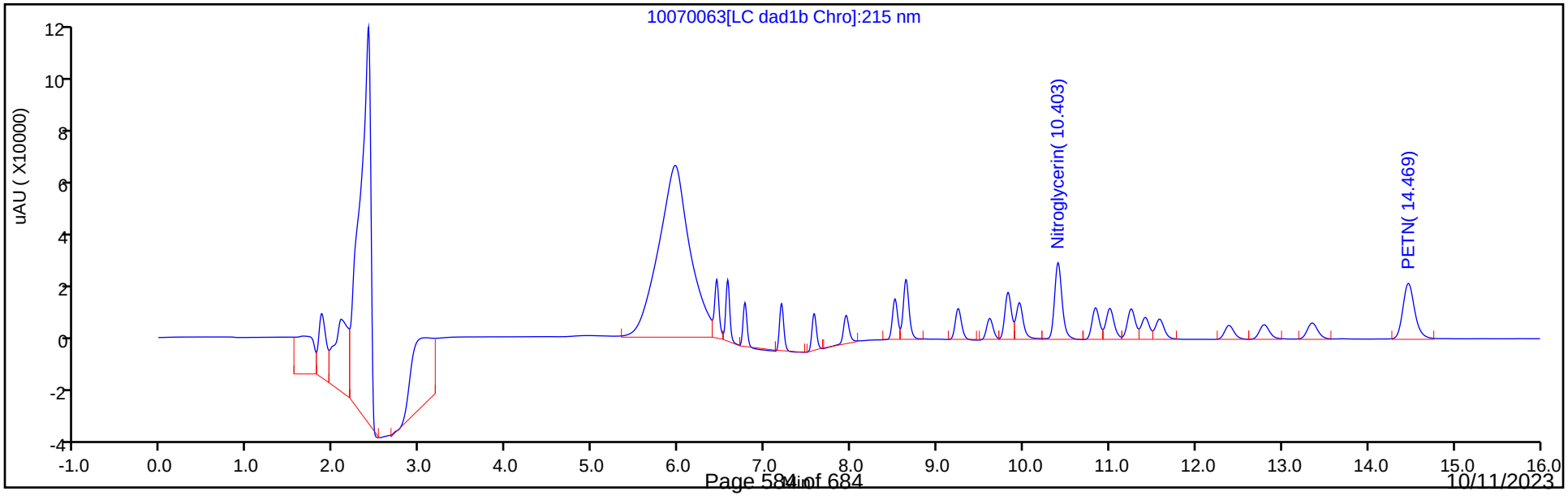
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Injection Date:	08-Oct-2023 10:52:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	63
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

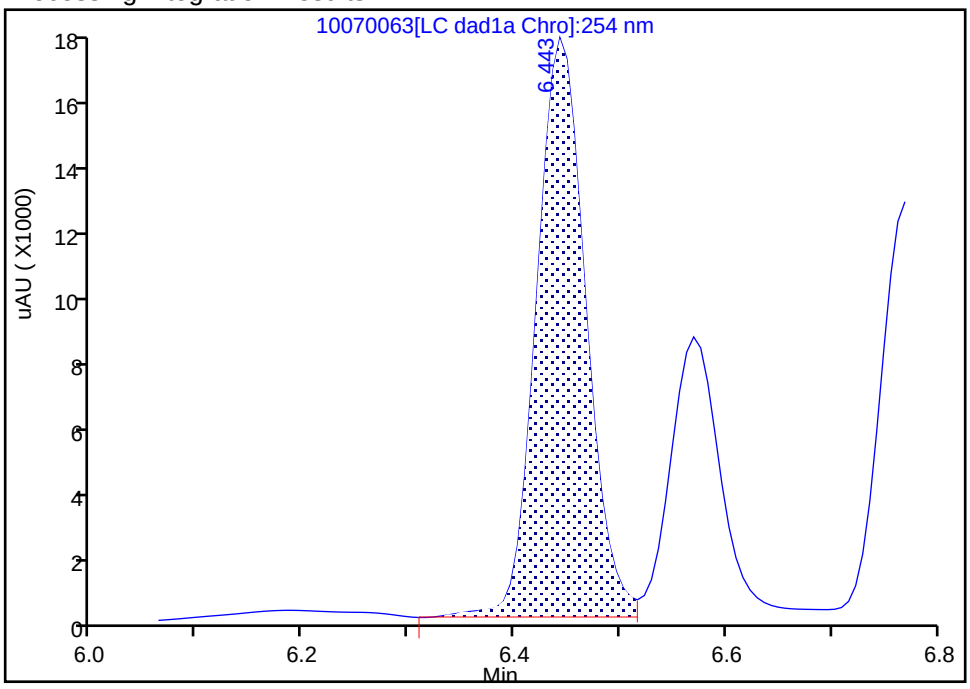
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Injection Date:	08-Oct-2023 10:52:55	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	63
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

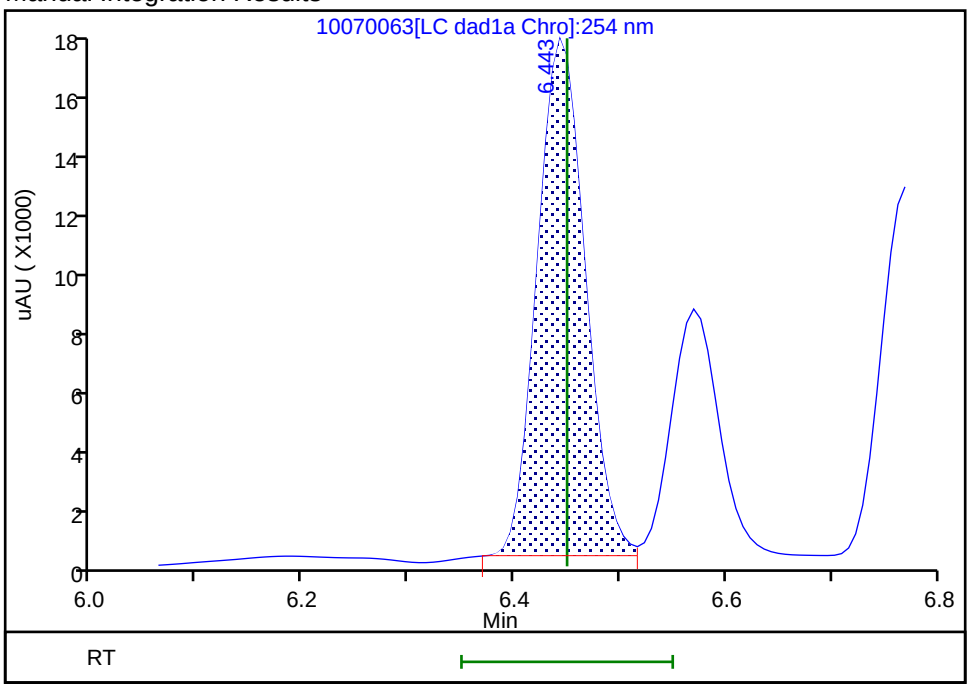
Processing Integration Results

RT: 6.44
Area: 53443
Amount: 0.266202
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 51092
Amount: 0.254492
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:05 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

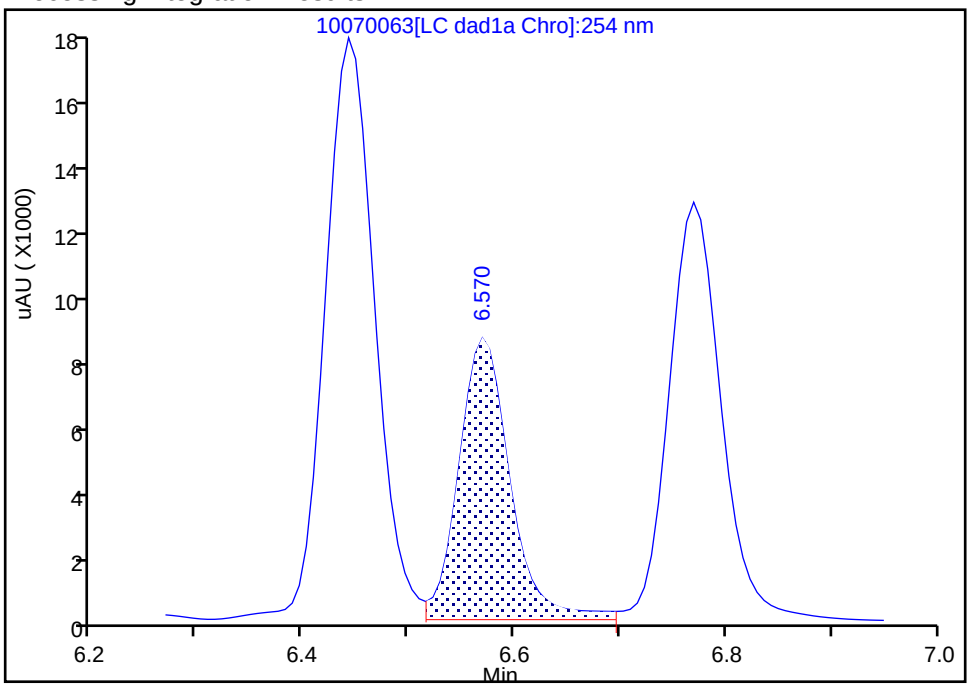
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Injection Date:	08-Oct-2023 10:52:55	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	63
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

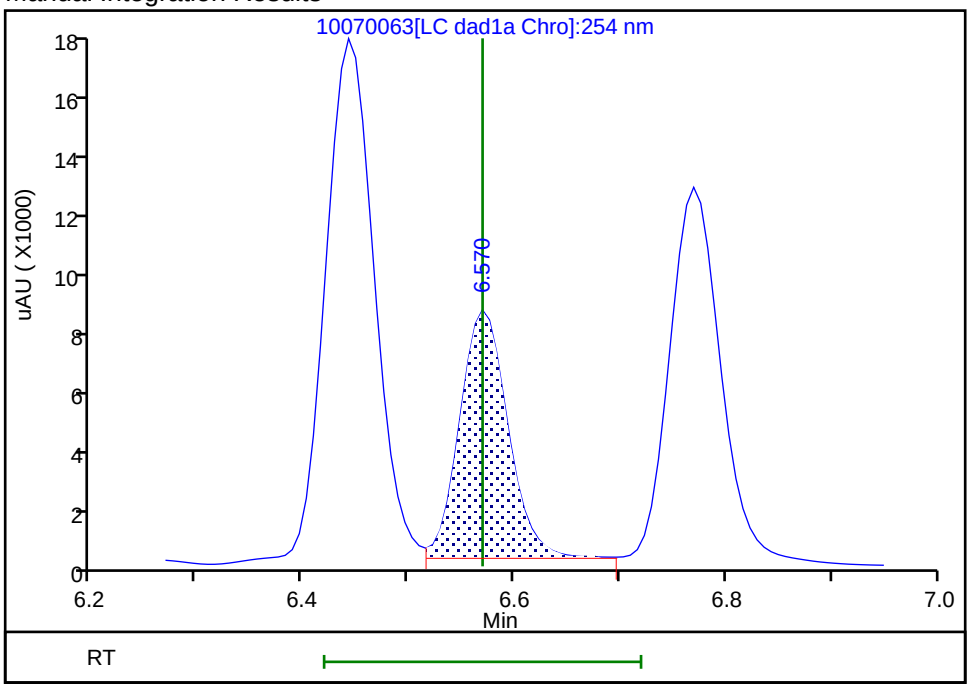
Processing Integration Results

RT: 6.57
Area: 26782
Amount: 0.284143
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 24254
Amount: 0.257322
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:00 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

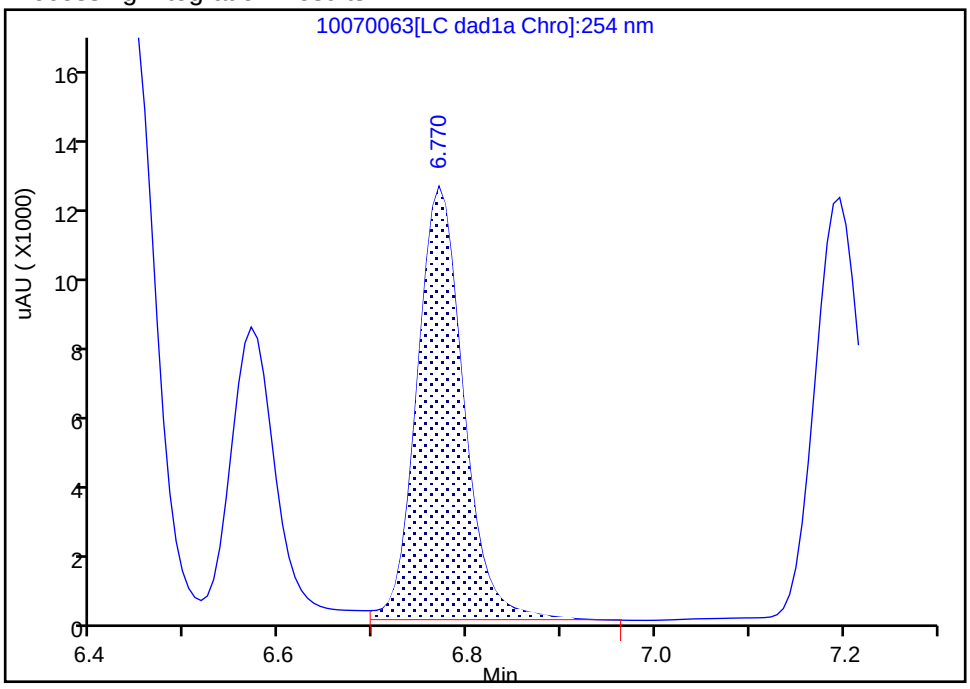
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Injection Date:	08-Oct-2023 10:52:55	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	63
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

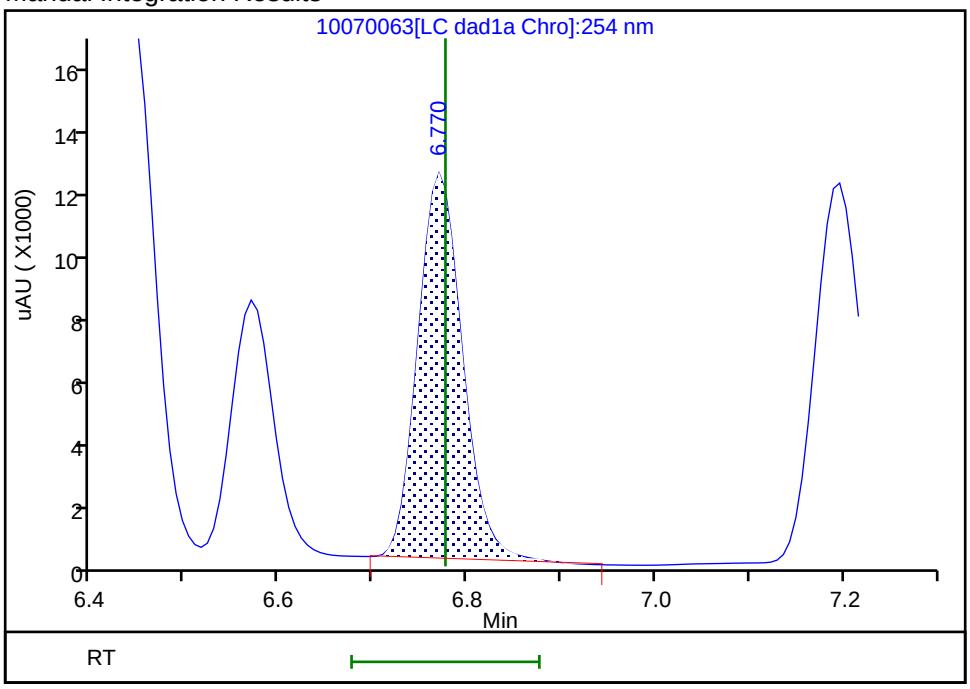
Processing Integration Results

RT: 6.77
Area: 40407
Amount: 0.279647
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 38538
Amount: 0.266712
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

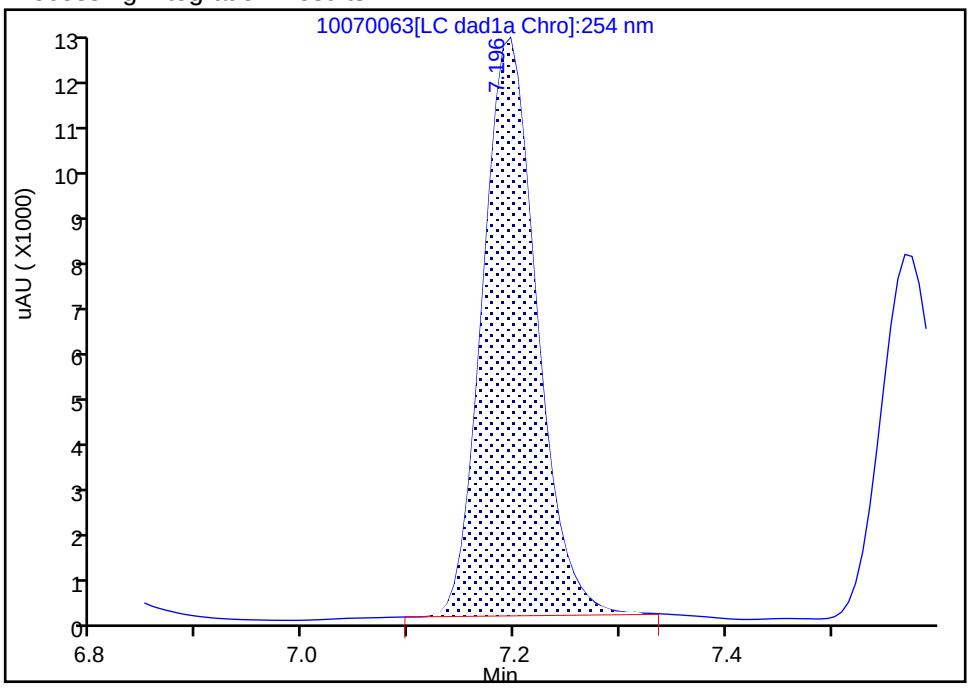
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070063.d				
Injection Date:	08-Oct-2023 10:52:55	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	63
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

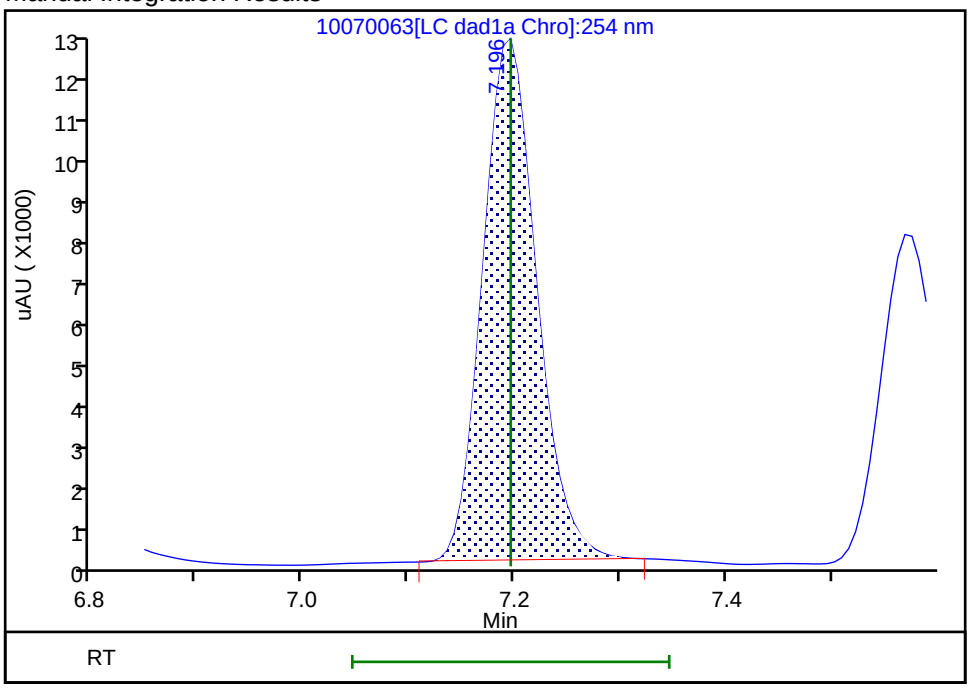
Processing Integration Results

RT: 7.20
Area: 40795
Amount: 0.294148
Amount Units: ug/mL



Manual Integration Results

RT: 7.20
Area: 40469
Amount: 0.291798
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/64 Calibration Date: 10/08/2023 11:15

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070064.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	208776		231	250	-7.4	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	124784		218	250	-12.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-628897/64 Calibration Date: 10/08/2023 11:15

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10070064.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070064.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 08-Oct-2023 11:15:51 ALS Bottle#: 8 Worklist Smp#: 64
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:26 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 09:00:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.441	6.438	0.003	52194	0.2500	0.2314	M
5 2,4-diamino-6-nitrotoluene	1	6.628	6.625	0.003	31196	0.2500	0.2177	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

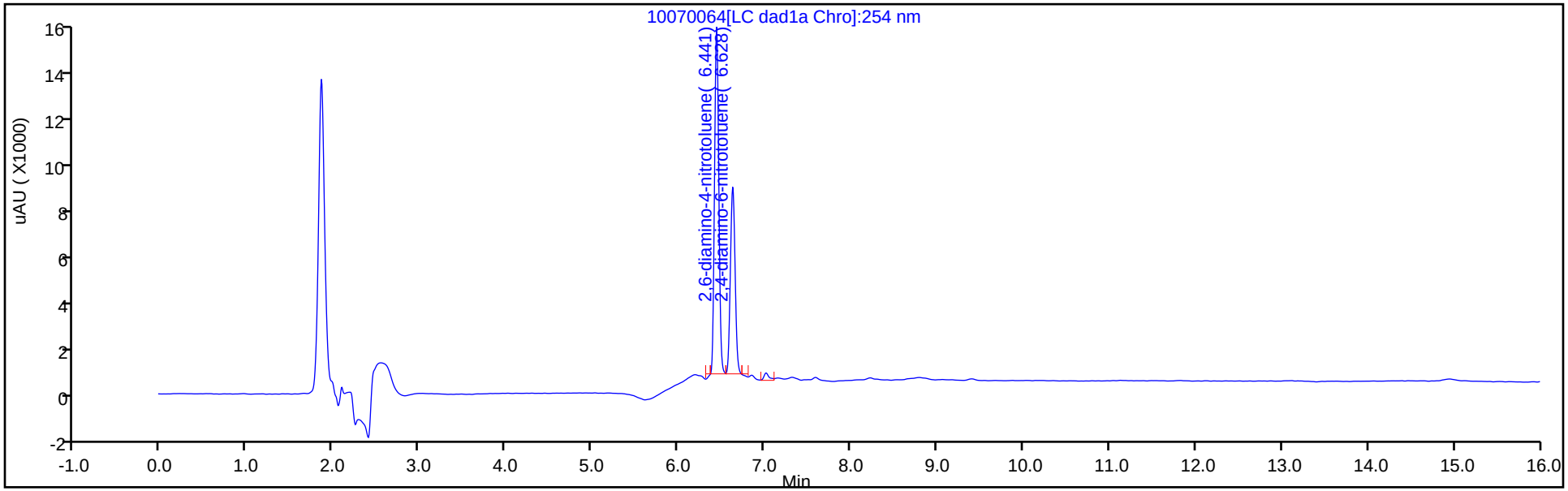
Report Date: 09-Oct-2023 11:17:26 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

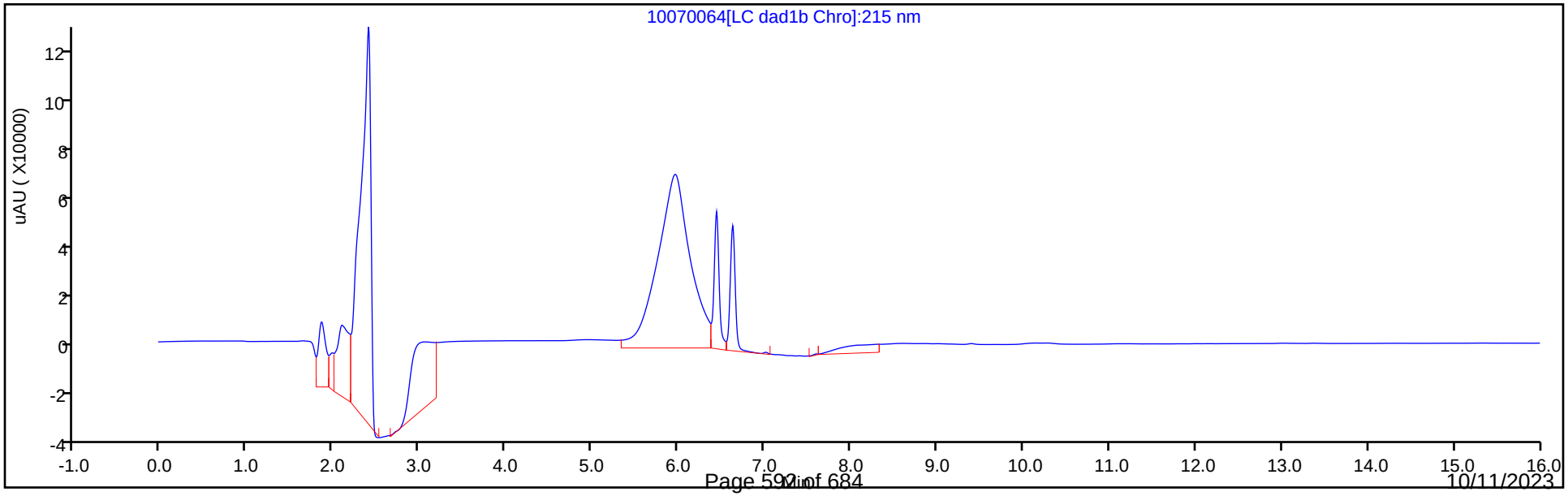
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070064.d

Injection Date:	08-Oct-2023 11:15:51	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	64
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

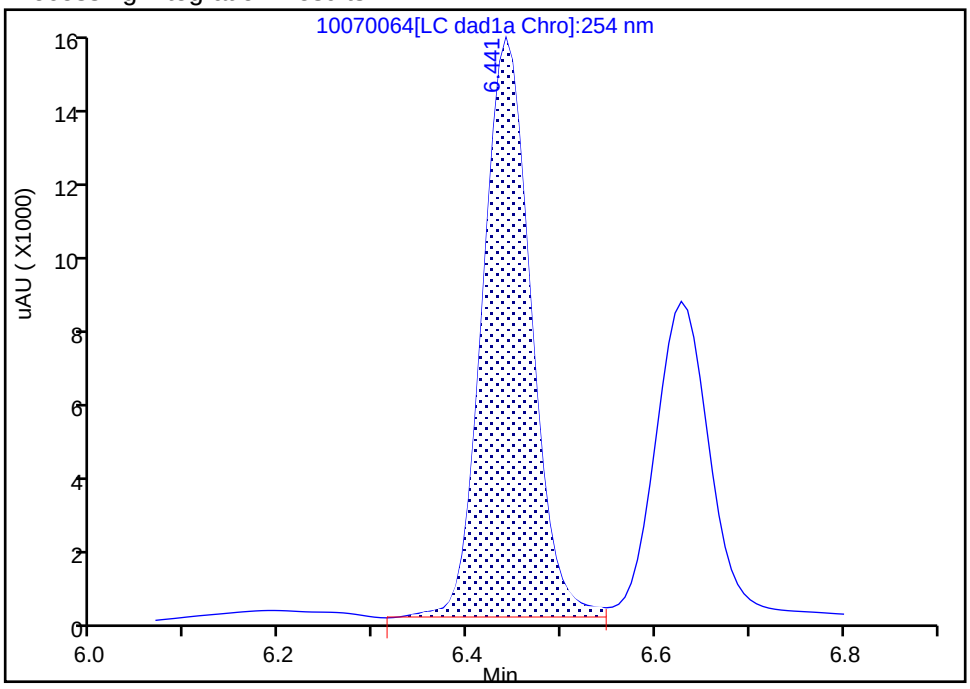
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070064.d				
Injection Date:	08-Oct-2023 11:15:51	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	64
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

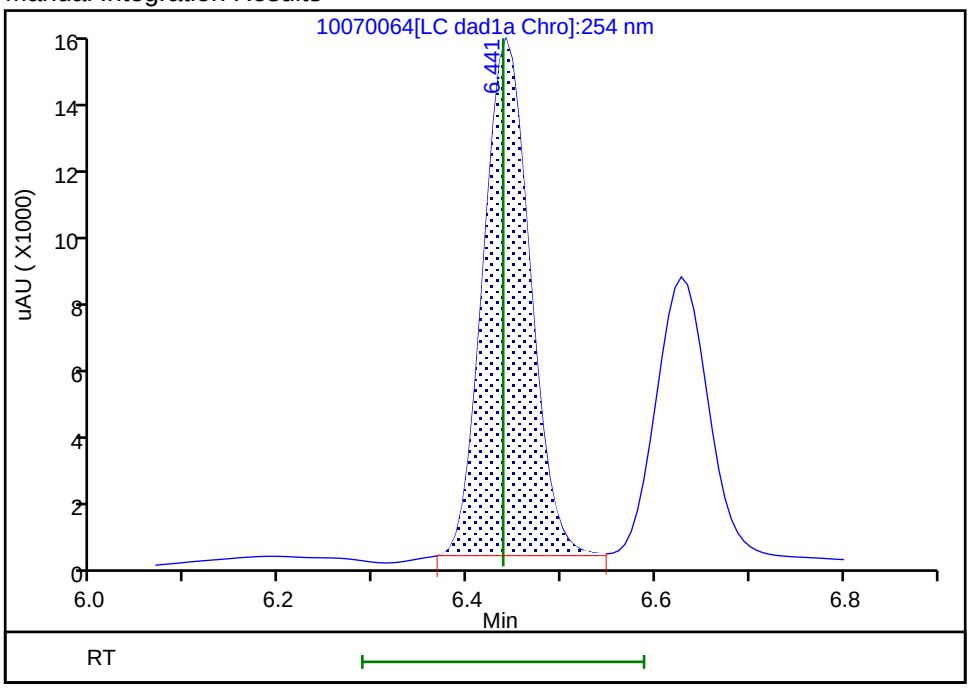
Processing Integration Results

RT: 6.44
Area: 54530
Amount: 0.241748
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 52194
Amount: 0.231392
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:32 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

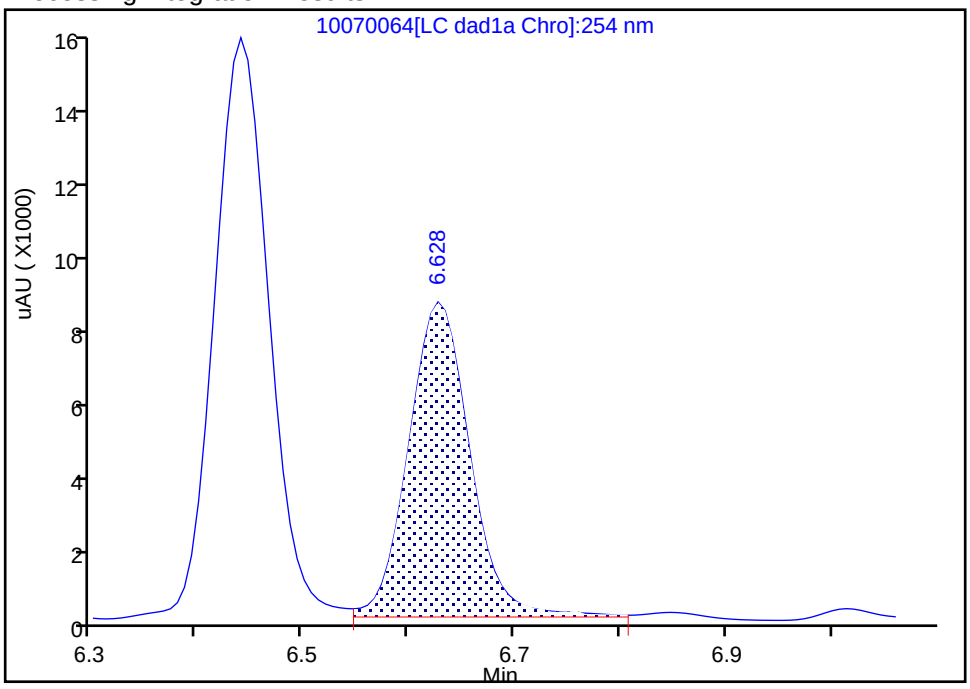
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Injection Date:	08-Oct-2023 11:15:51	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	64
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

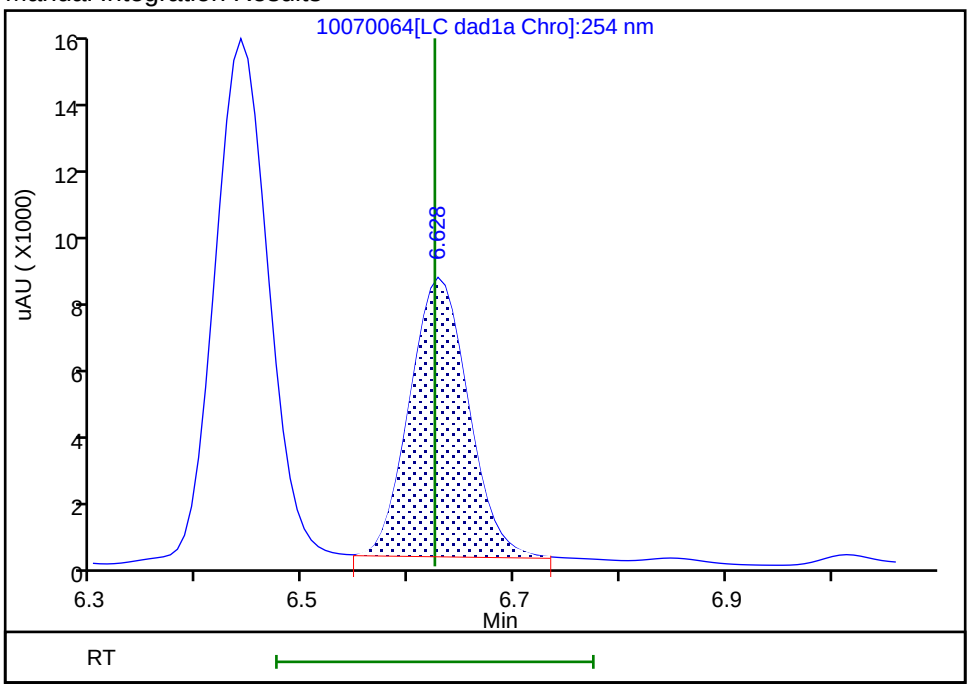
Processing Integration Results

RT: 6.63
Area: 33358
Amount: 0.232742
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 31196
Amount: 0.217657
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:16:34 -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.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-626878/19 | Calibration Date: 09/21/2023 01:15

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 00:40

Lab File ID: 09200019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	377994		482	501	-3.8	20.0
DNX	Ave	288451	286653		499	502	-0.6	20.0
HMX	Ave	190100	173260		456	500	-8.9	20.0
MNX	Ave	265061	263354		582	586	-0.6	20.0
Picric acid	Lin2		169712		562	500	12.4	20.0
RDX	Ave	220484	211530		480	500	-4.1	20.0
Nitrobenzene	Ave	384007	395588		515	500	3.0	20.0
3,5-Dinitroaniline	Lin2		447402		540	500	8.1	20.0
1,3-Dinitrobenzene	Ave	585449	632188		540	500	8.0	20.0
Nitroglycerin	Ave	128462	138721		5400	5000	8.0	20.0
2-Nitrotoluene	Ave	237596	250190		527	500	5.3	20.0
4-Nitrotoluene	Ave	213737	226944		531	500	6.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	295158		542	500	8.5	20.0
3-Nitrotoluene	Ave	270588	284778		526	500	5.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	417542		533	500	6.6	20.0
1,3,5-Trinitrobenzene	Ave	398781	452868		568	500	13.6	20.0
2,6-Dinitrotoluene	Ave	274271	282350		515	500	2.9	20.0
2,4-Dinitrotoluene	Ave	544319	573394		527	500	5.3	20.0
Tetryl	Ave	307961	333394		541	500	8.3	20.0
2,4,6-Trinitrotoluene	Ave	394912	416764		528	500	5.5	20.0
PETN	Lin2		149602		5640	5000	12.8	20.0
1,2-Dinitrobenzene	Ave	266741	240938		452	500	-9.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-626878/19 Calibration Date: 09/21/2023 01:15

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 09200019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.30	5.17	5.47
DNX	6.19	6.06	6.36
HMX	6.87	6.73	7.03
MNX	7.73	7.60	7.90
Picric acid	8.49	8.40	8.70
RDX	9.17	9.03	9.33
Nitrobenzene	11.77	11.64	11.94
3,5-Dinitroaniline	14.63	14.49	14.79
1,3-Dinitrobenzene	14.89	14.75	15.05
Nitroglycerin	15.48	15.33	15.63
2-Nitrotoluene	16.06	15.92	16.22
4-Nitrotoluene	16.29	16.15	16.45
4-Amino-2,6-dinitrotoluene	16.82	16.68	16.98
3-Nitrotoluene	17.15	17.01	17.31
2-Amino-4,6-dinitrotoluene	17.69	17.54	17.84
1,3,5-Trinitrobenzene	17.70	17.55	17.85
2,6-Dinitrotoluene	18.98	18.84	19.14
2,4-Dinitrotoluene	19.43	19.29	19.59
Tetryl	22.85	22.69	22.99
2,4,6-Trinitrotoluene	23.65	23.51	23.81
PETN	24.97	24.81	25.11
1,2-Dinitrobenzene	12.77	12.63	12.93

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 21-Sep-2023 01:15:31 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:13:02 Calib Date: 21-Sep-2023 00:40:35
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.299	5.324	-0.025	189186	0.5005	0.4815	
4 DNX	1	6.186	6.211	-0.025	143900	0.5020	0.4989	
5 HMX	1	6.866	6.877	-0.011	86630	0.5000	0.4557	
6 MNX	1	7.732	7.751	-0.019	154194	0.5855	0.5817	
7 2,4,6-Trinitrophenol	1	8.486	8.551	-0.065	84856	0.5000	0.5619	
8 RDX	1	9.166	9.184	-0.018	105765	0.5000	0.4797	
9 Nitrobenzene	1	11.765	11.790	-0.025	197794	0.5000	0.5151	
$ 10 1,2-Dinitrobenzene	1	12.765	12.784	-0.019	120469	0.5000	0.4516	
11 3,5-Dinitroaniline	1	14.625	14.644	-0.019	223701	0.5000	0.5403	
12 1,3-Dinitrobenzene	1	14.885	14.904	-0.019	316094	0.5000	0.5399	
13 Nitroglycerin	2	15.479	15.484	-0.005	693603	5.00	5.40	
14 o-Nitrotoluene	1	16.059	16.070	-0.011	125095	0.5000	0.5265	
16 p-Nitrotoluene	1	16.285	16.297	-0.012	113472	0.5000	0.5309	
17 4-Amino-2,6-dinitrotoluene	1	16.819	16.830	-0.011	147579	0.5000	0.5425	
18 m-Nitrotoluene	1	17.152	17.164	-0.012	142389	0.5000	0.5262	
19 2-Amino-4,6-dinitrotoluene	1	17.692	17.690	0.002	208771	0.5000	0.5328	M
20 1,3,5-Trinitrobenzene	1	17.699	17.704	-0.005	226434	0.5000	0.5678	M
21 2,6-Dinitrotoluene	1	18.979	18.990	-0.011	141175	0.5000	0.5147	
22 2,4-Dinitrotoluene	1	19.432	19.444	-0.012	286697	0.5000	0.5267	
23 Tetryl	1	22.846	22.837	0.009	166697	0.5000	0.5413	
24 2,4,6-Trinitrotoluene	1	23.652	23.657	-0.005	208382	0.5000	0.5277	
25 PETN	2	24.966	24.957	0.009	748009	5.00	5.64	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00150	Amount Added:	50.00	Units: uL
8330_OP_DMT_00022	Amount Added:	50.00	Units: uL
8330 LCS_00130	Amount Added:	50.00	Units: uL

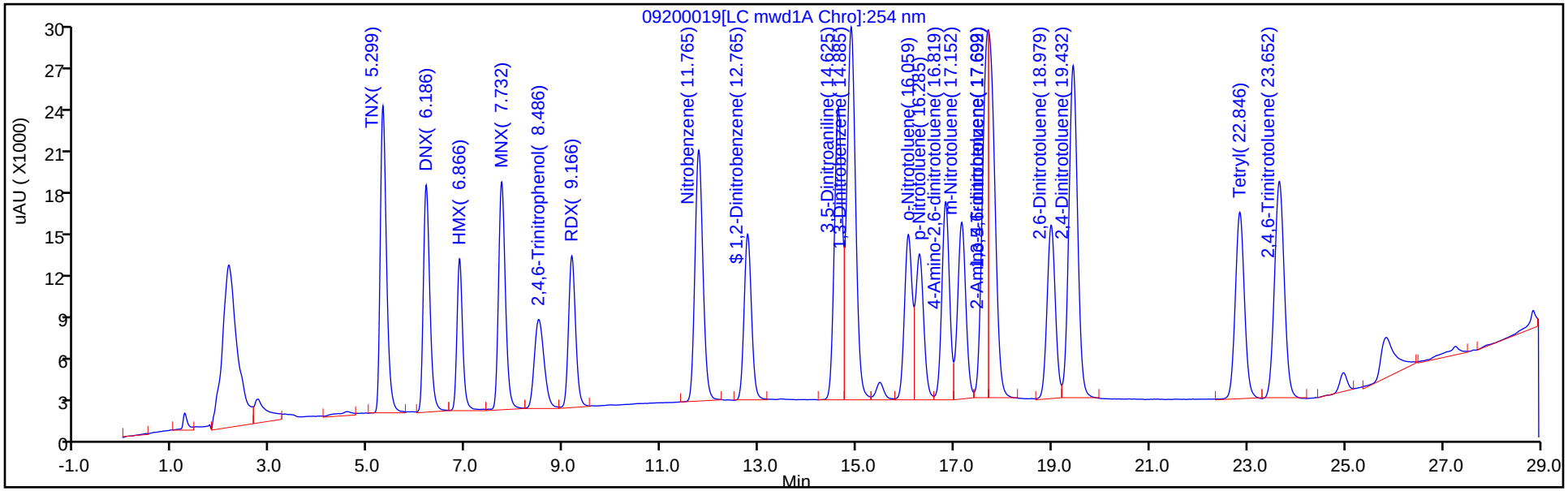
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Eurofins Denver

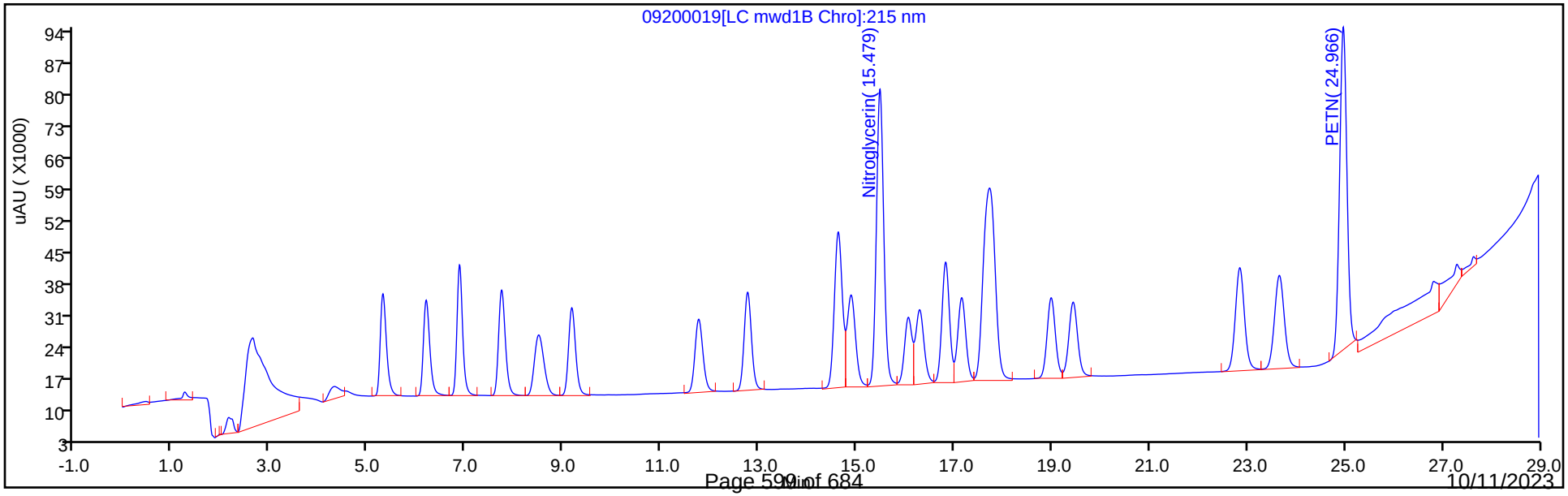
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Injection Date:	21-Sep-2023 01:15:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

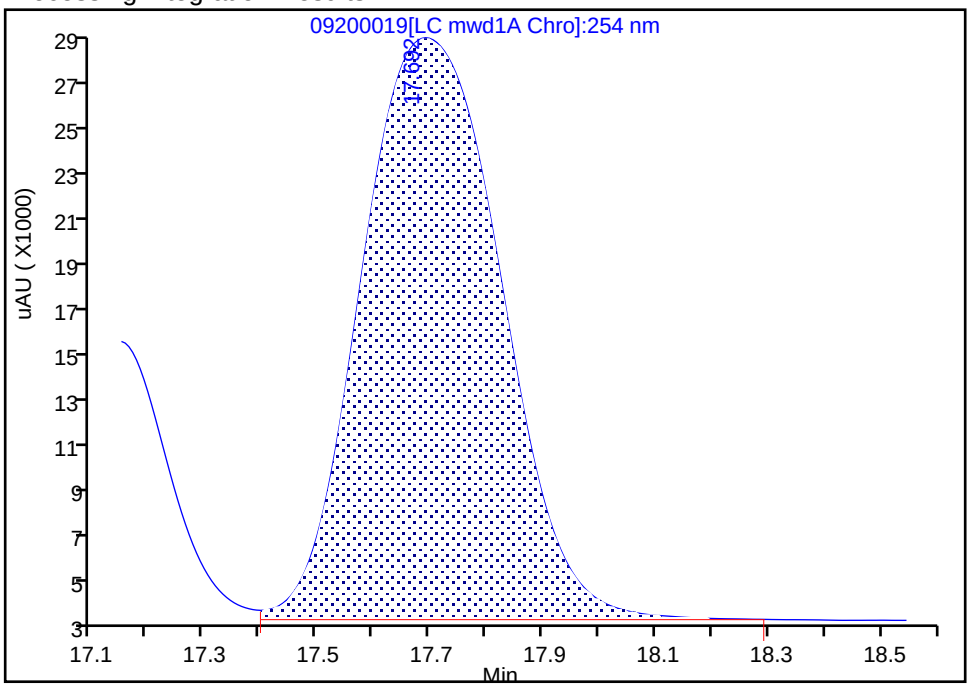
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Injection Date:	21-Sep-2023 01:15:31	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

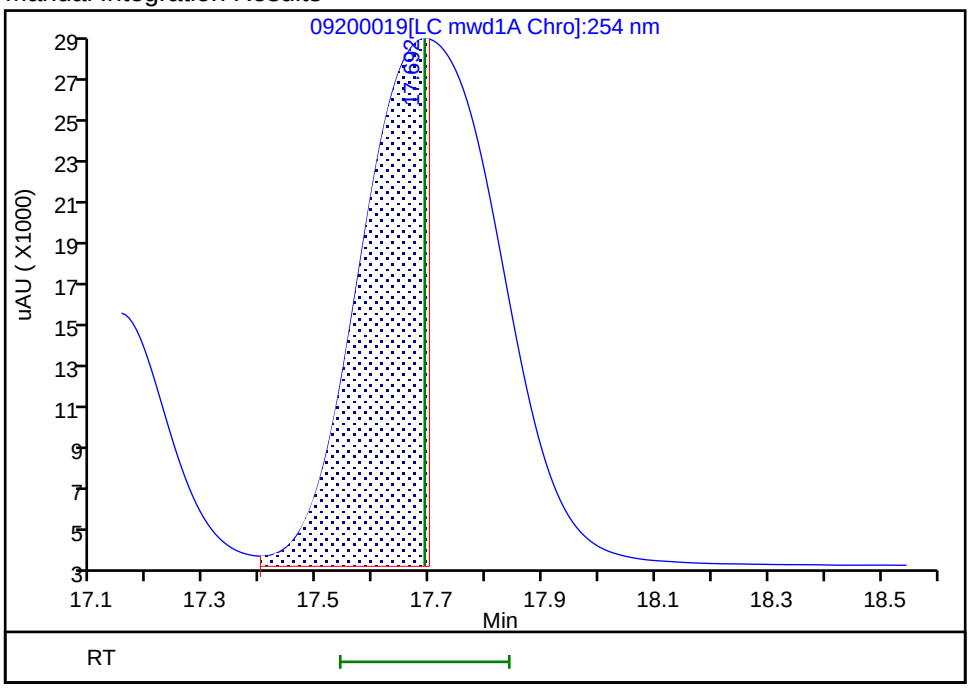
Processing Integration Results

RT: 17.69
Area: 435178
Amount: 1.110653
Amount Units: ug/ml



Manual Integration Results

RT: 17.69
Area: 208771
Amount: 0.532821
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

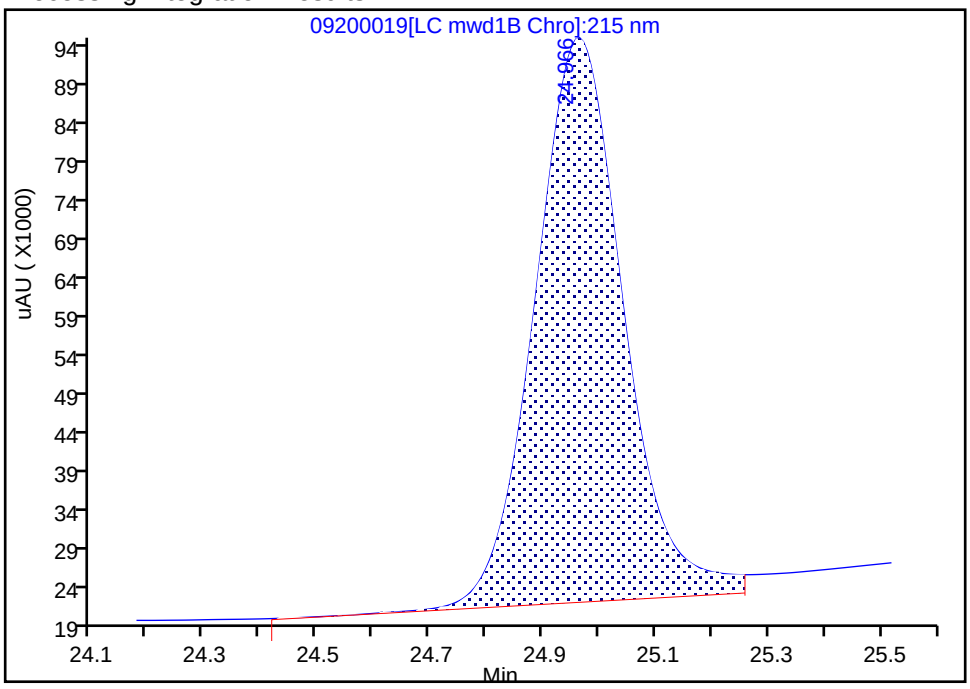
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Injection Date:	21-Sep-2023 01:15:31	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

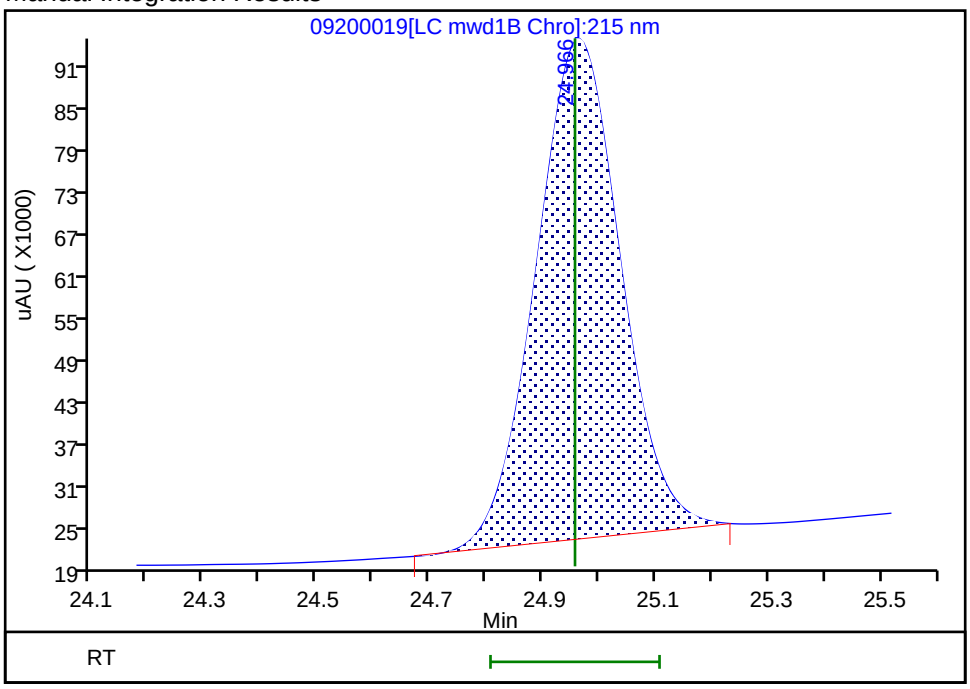
Processing Integration Results

RT: 24.97
Area: 801071
Amount: 5.596870
Amount Units: ug/ml



Manual Integration Results

RT: 24.97
Area: 748009
Amount: 5.637832
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:05 -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.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-626878/28 Calibration Date: 09/21/2023 06:30

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 09200028.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		406956		523	500	4.7	20.0
2,4-diamino-6-nitrotoluene	Lin2		255200		526	500	5.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: ICV 280-626878/28 Calibration Date: 09/21/2023 06:30

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 09200028.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.25	4.10	4.40
2,4-diamino-6-nitrotoluene	4.87	4.72	5.02

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200028.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 21-Sep-2023 06:30:31 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:13:02 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 16:13:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.248	4.246	0.002	203478	0.5000	0.5233	
2 2,4-diamino-6-nitrotoluene	1	4.868	4.866	0.002	127600	0.5000	0.5258	

QC Flag Legend
Processing Flags

Reagents:
8330DiaminLCS_00060 Amount Added: 25.00 Units: uL

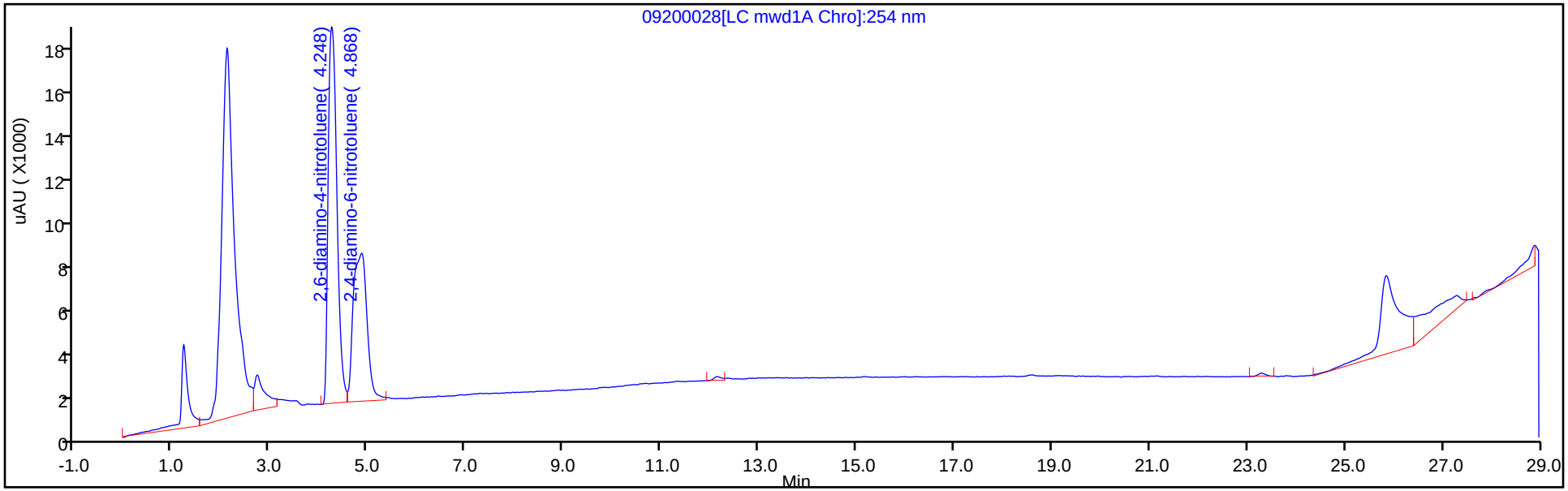
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Eurofins Denver

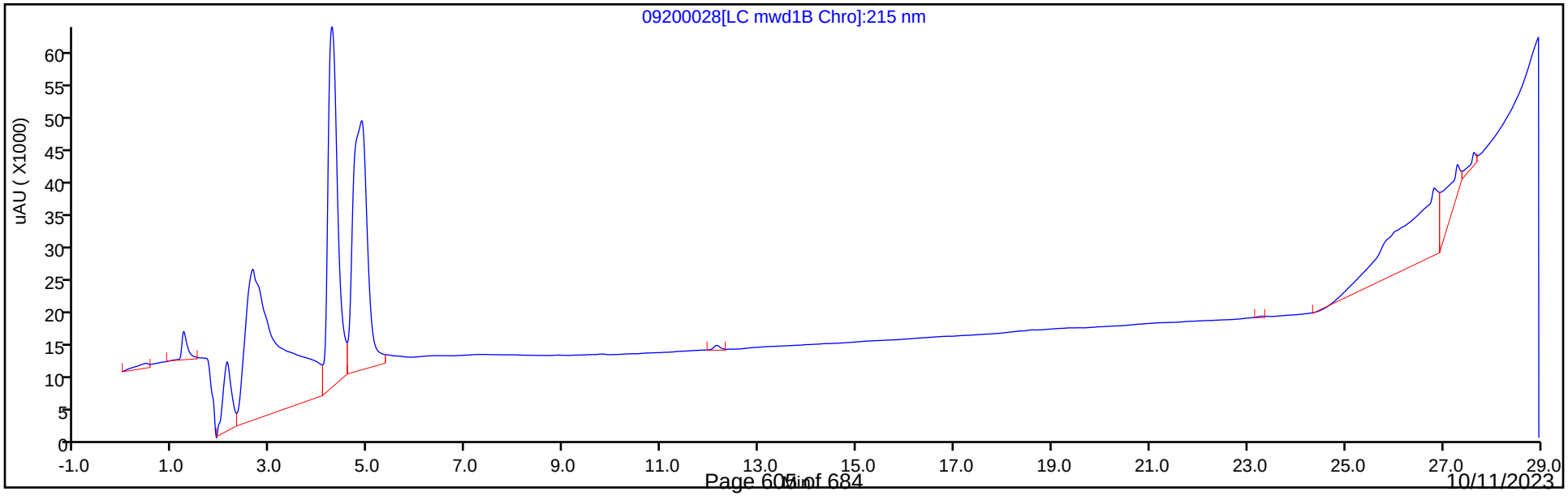
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200028.D

Injection Date:	21-Sep-2023 06:30:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
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.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/37 Calibration Date: 10/10/2023 08:17

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10090037.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	381667		244	251	-2.9	20.0
DNX	Ave	288451	280076		243	250	-2.9	20.0
HMX	Ave	190100	177828		234	250	-6.5	20.0
MNX	Ave	265061	262889		289	292	-0.8	20.0
Picric acid	Lin2		137764		229	250	-8.4	20.0
RDX	Ave	220484	214064		243	250	-2.9	20.0
Nitrobenzene	Ave	384007	355228		231	250	-7.5	20.0
3,5-Dinitroaniline	Lin2		425724		257	250	2.8	20.0
1,3-Dinitrobenzene	Ave	585449	581244		248	250	-0.7	20.0
Nitroglycerin	Ave	128462	127006		2470	2500	-1.1	20.0
2-Nitrotoluene	Ave	237596	226448		238	250	-4.7	20.0
4-Nitrotoluene	Ave	213737	209888		245	250	-1.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	272660		251	250	0.2	20.0
3-Nitrotoluene	Ave	270588	259788		240	250	-4.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	384376		245	250	-1.9	20.0
1,3,5-Trinitrobenzene	Ave	398781	414504		260	250	3.9	20.0
2,6-Dinitrotoluene	Ave	274271	276916		252	250	1.0	20.0
2,4-Dinitrotoluene	Ave	544319	542812		249	250	-0.3	20.0
Tetryl	Ave	307961	308928		251	250	0.3	20.0
2,4,6-Trinitrotoluene	Ave	394912	407844		258	250	3.3	20.0
PETN	Lin2		142895		2700	2500	8.1	20.0
1,2-Dinitrobenzene	Ave	266741	256816		241	250	-3.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/37 Calibration Date: 10/10/2023 08:17

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10090037.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.31	5.16	5.46
DNX	6.19	6.04	6.34
HMX	6.86	6.71	7.01
MNX	7.73	7.58	7.88
Picric acid	8.84	8.66	8.96
RDX	9.16	9.01	9.31
Nitrobenzene	11.76	11.60	11.90
3,5-Dinitroaniline	14.60	14.45	14.75
1,3-Dinitrobenzene	14.86	14.71	15.01
Nitroglycerin	15.44	15.27	15.57
2-Nitrotoluene	16.04	15.87	16.17
4-Nitrotoluene	16.26	16.09	16.39
4-Amino-2,6-dinitrotoluene	16.80	16.63	16.93
3-Nitrotoluene	17.12	16.95	17.25
2-Amino-4,6-dinitrotoluene	17.65	17.48	17.78
1,3,5-Trinitrobenzene	17.67	17.51	17.81
2,6-Dinitrotoluene	18.94	18.77	19.07
2,4-Dinitrotoluene	19.40	19.23	19.53
Tetryl	22.77	22.59	22.89
2,4,6-Trinitrotoluene	23.58	23.41	23.71
PETN	24.89	24.71	25.01
1,2-Dinitrobenzene	12.76	12.59	12.89

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090037.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 10-Oct-2023 08:17:18 ALS Bottle#: 7 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:47 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 15:15:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.230	4.237	-0.007	97456	0.2500	0.2424	
2 2,4-diamino-6-nitrotoluene	1	4.857	4.864	-0.007	60839	0.2500	0.2404	
3 TNX	1	5.310	5.310	0.000	95703	0.2508	0.2436	
4 DNX	1	6.190	6.190	0.000	70089	0.2503	0.2430	
5 HMX	1	6.857	6.864	-0.007	44457	0.2500	0.2339	
6 MNX	1	7.730	7.730	0.000	76698	0.2918	0.2894	
7 2,4,6-Trinitrophenol	1	8.843	8.810	0.033	34441	0.2500	0.2289	
8 RDX	1	9.157	9.157	0.000	53516	0.2500	0.2427	
9 Nitrobenzene	1	11.756	11.750	0.006	88807	0.2500	0.2313	
$ 10 1,2-Dinitrobenzene	1	12.756	12.743	0.013	64204	0.2500	0.2407	
11 3,5-Dinitroaniline	1	14.603	14.597	0.006	106431	0.2500	0.2570	
12 1,3-Dinitrobenzene	1	14.863	14.857	0.006	145311	0.2500	0.2482	
13 Nitroglycerin	2	15.436	15.423	0.013	317515	2.50	2.47	
14 o-Nitrotoluene	1	16.036	16.017	0.019	56612	0.2500	0.2383	
16 p-Nitrotoluene	1	16.263	16.243	0.020	52472	0.2500	0.2455	
17 4-Amino-2,6-dinitrotoluene	1	16.796	16.777	0.019	68165	0.2500	0.2506	
18 m-Nitrotoluene	1	17.123	17.103	0.020	64947	0.2500	0.2400	
19 2-Amino-4,6-dinitrotoluene	1	17.650	17.630	0.020	96094	0.2500	0.2452	Ma
20 1,3,5-Trinitrobenzene	1	17.670	17.663	0.007	103626	0.2500	0.2599	Ma
21 2,6-Dinitrotoluene	1	18.943	18.923	0.020	69229	0.2500	0.2524	
22 2,4-Dinitrotoluene	1	19.396	19.377	0.019	135703	0.2500	0.2493	
23 Tetryl	1	22.770	22.744	0.026	77232	0.2500	0.2508	
24 2,4,6-Trinitrotoluene	1	23.583	23.557	0.026	101961	0.2500	0.2582	
25 PETN	2	24.890	24.864	0.026	357238	2.50	2.70	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

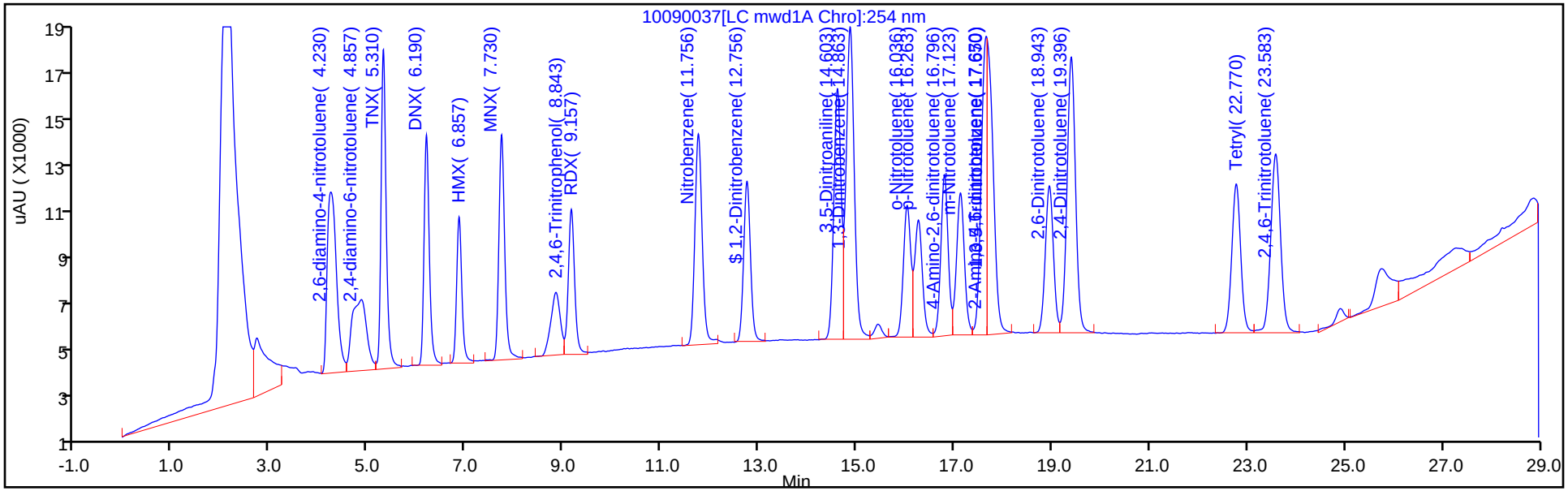
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Eurofins Denver

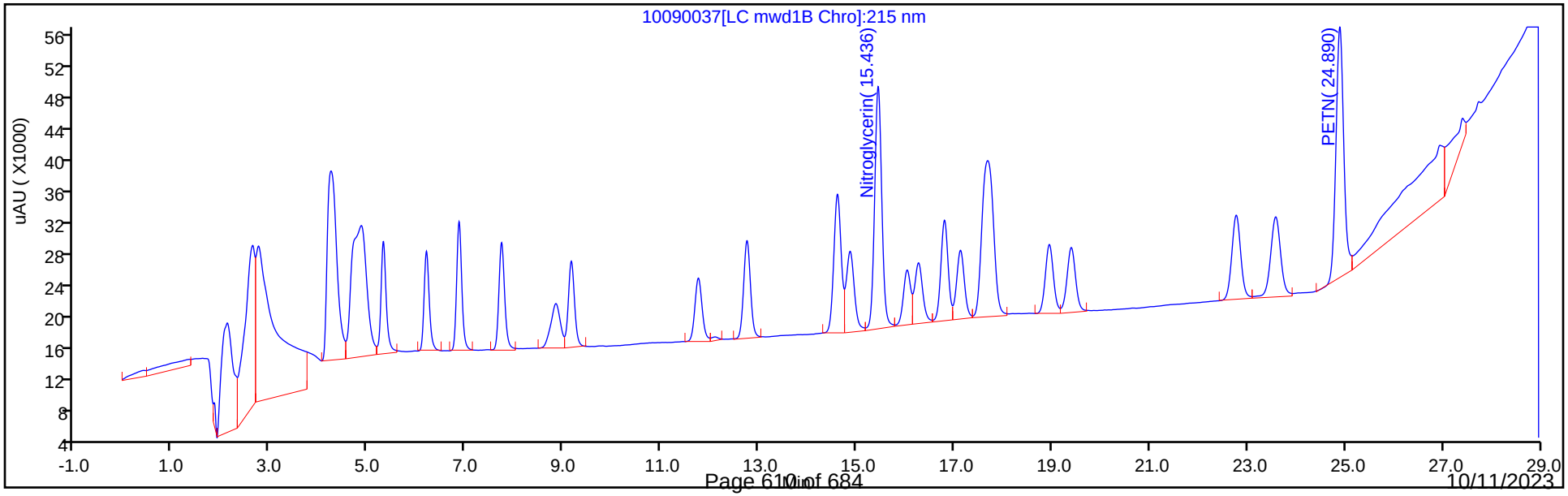
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Injection Date:	10-Oct-2023 08:17:18	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

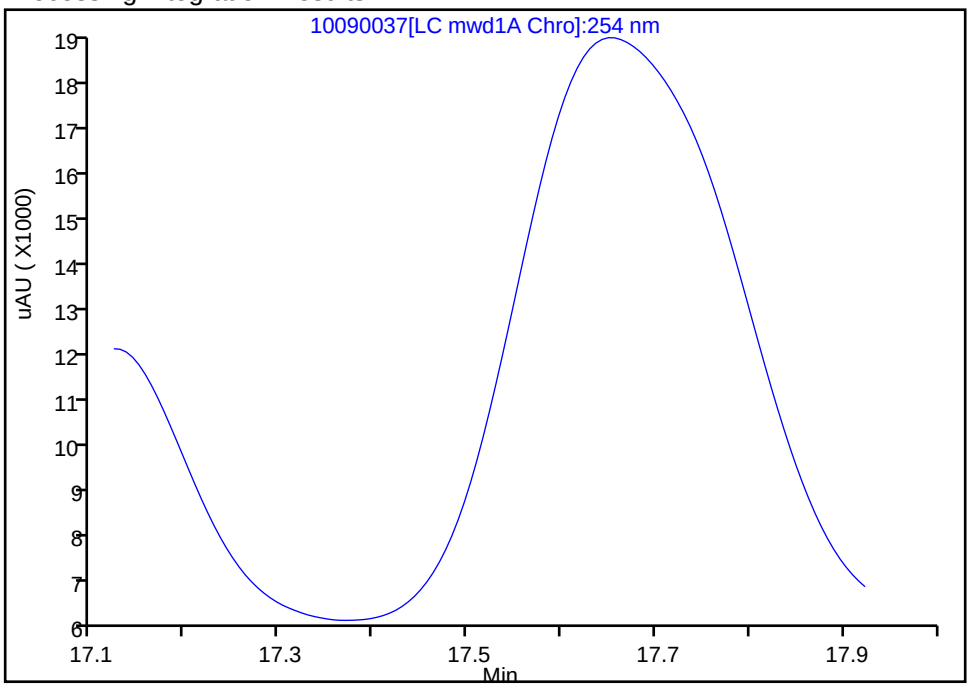
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Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

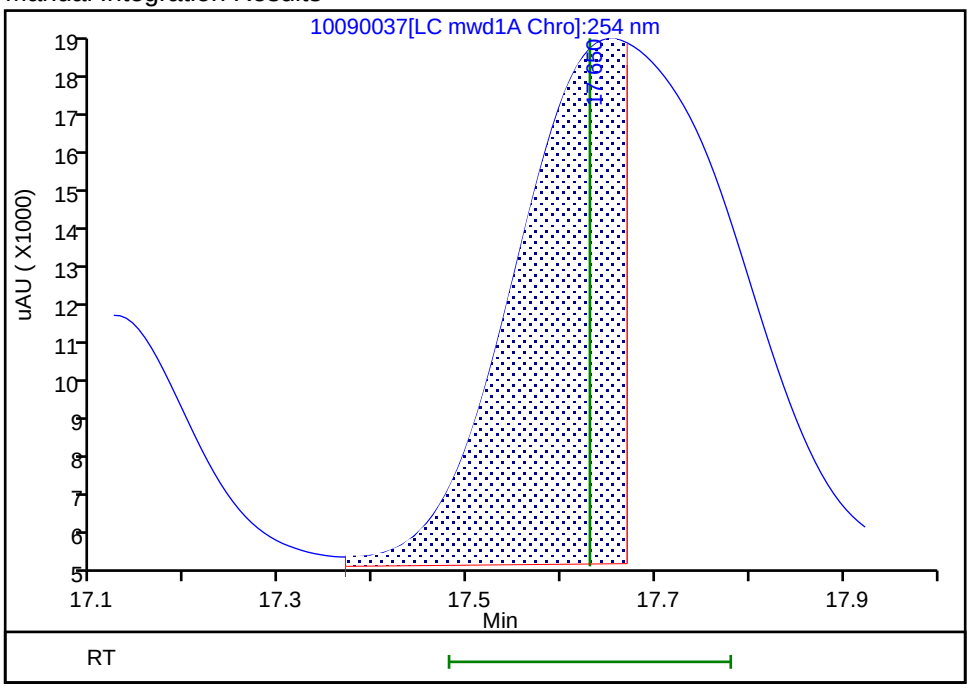
Processing Integration Results

Not Detected
Expected RT: 17.63



Manual Integration Results

RT: 17.65
Area: 96094
Amount: 0.245249
Amount Units: ug/ml



Reviewer: K8YG, 10-Oct-2023 15:15:52 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

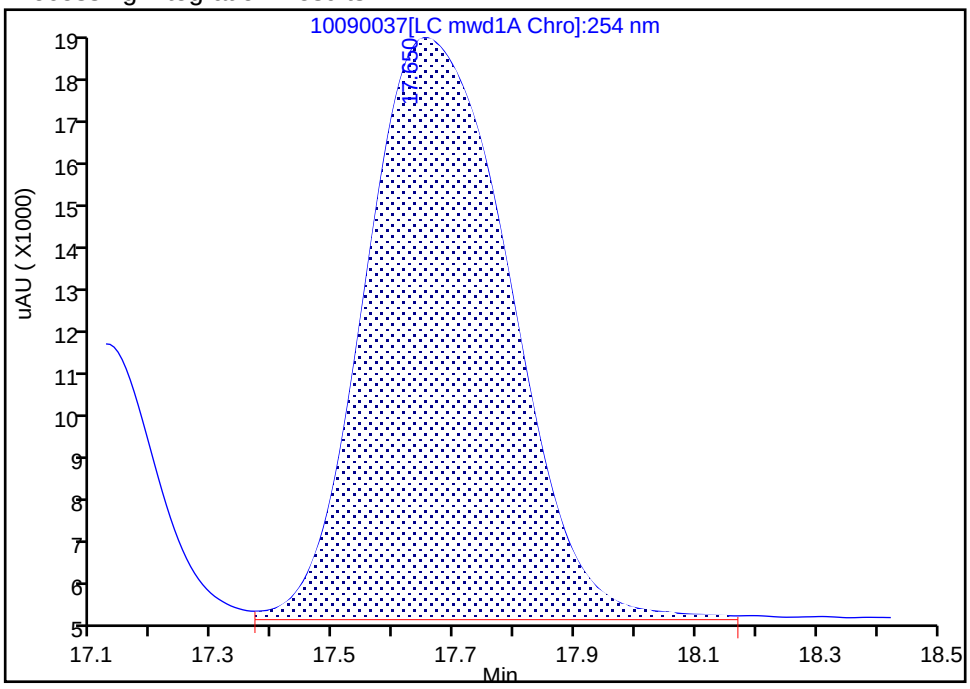
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Injection Date:	10-Oct-2023 08:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

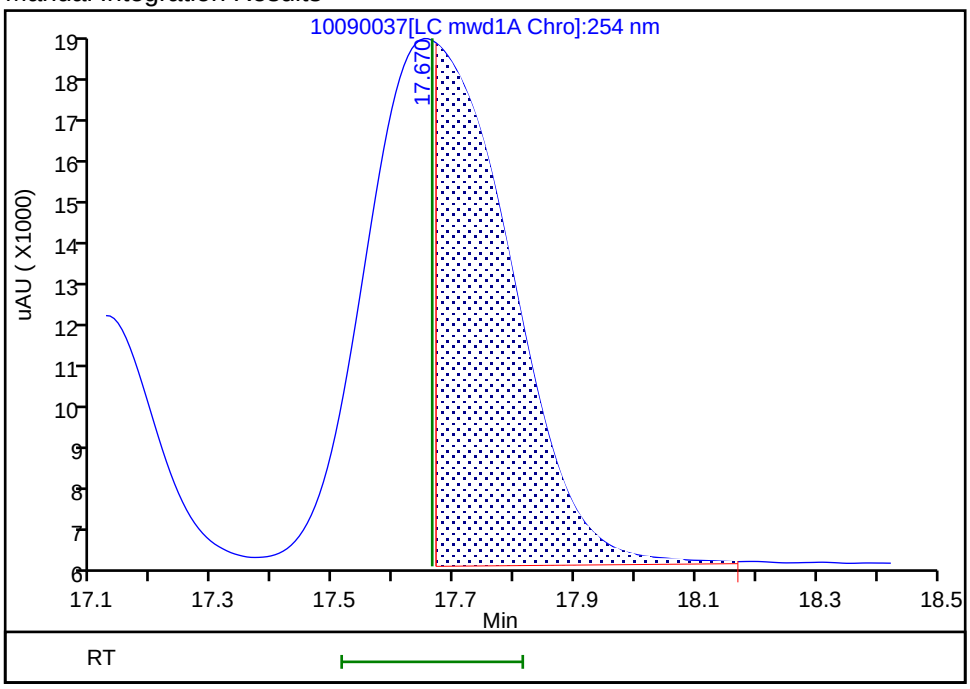
Processing Integration Results

RT: 17.65
Area: 199715
Amount: 0.500813
Amount Units: ug/ml



Manual Integration Results

RT: 17.67
Area: 103626
Amount: 0.259857
Amount Units: ug/ml



Reviewer: K8YG, 10-Oct-2023 15:15:55 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/37 | Calibration Date: 10/10/2023 08:17

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 05:55

Lab File ID: 10090037.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		389824		242	250	-3.0	20.0
2,4-diamino-6-nitrotoluene	Lin2		243356		240	250	-3.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/37 Calibration Date: 10/10/2023 08:17

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10090037.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.23	4.09	4.39
2,4-diamino-6-nitrotoluene	4.86	4.71	5.01

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090037.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 10-Oct-2023 08:17:18 ALS Bottle#: 7 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:47 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 15:15:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.230	4.237	-0.007	97456	0.2500	0.2424	
2 2,4-diamino-6-nitrotoluene	1	4.857	4.864	-0.007	60839	0.2500	0.2404	
3 TNX	1	5.310	5.310	0.000	95703	0.2508	0.2436	
4 DNX	1	6.190	6.190	0.000	70089	0.2503	0.2430	
5 HMX	1	6.857	6.864	-0.007	44457	0.2500	0.2339	
6 MNX	1	7.730	7.730	0.000	76698	0.2918	0.2894	
7 2,4,6-Trinitrophenol	1	8.843	8.810	0.033	34441	0.2500	0.2289	
8 RDX	1	9.157	9.157	0.000	53516	0.2500	0.2427	
9 Nitrobenzene	1	11.756	11.750	0.006	88807	0.2500	0.2313	
$ 10 1,2-Dinitrobenzene	1	12.756	12.743	0.013	64204	0.2500	0.2407	
11 3,5-Dinitroaniline	1	14.603	14.597	0.006	106431	0.2500	0.2570	
12 1,3-Dinitrobenzene	1	14.863	14.857	0.006	145311	0.2500	0.2482	
13 Nitroglycerin	2	15.436	15.423	0.013	317515	2.50	2.47	
14 o-Nitrotoluene	1	16.036	16.017	0.019	56612	0.2500	0.2383	
16 p-Nitrotoluene	1	16.263	16.243	0.020	52472	0.2500	0.2455	
17 4-Amino-2,6-dinitrotoluene	1	16.796	16.777	0.019	68165	0.2500	0.2506	
18 m-Nitrotoluene	1	17.123	17.103	0.020	64947	0.2500	0.2400	
19 2-Amino-4,6-dinitrotoluene	1	17.650	17.630	0.020	96094	0.2500	0.2452	Ma
20 1,3,5-Trinitrobenzene	1	17.670	17.663	0.007	103626	0.2500	0.2599	Ma
21 2,6-Dinitrotoluene	1	18.943	18.923	0.020	69229	0.2500	0.2524	
22 2,4-Dinitrotoluene	1	19.396	19.377	0.019	135703	0.2500	0.2493	
23 Tetryl	1	22.770	22.744	0.026	77232	0.2500	0.2508	
24 2,4,6-Trinitrotoluene	1	23.583	23.557	0.026	101961	0.2500	0.2582	
25 PETN	2	24.890	24.864	0.026	357238	2.50	2.70	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

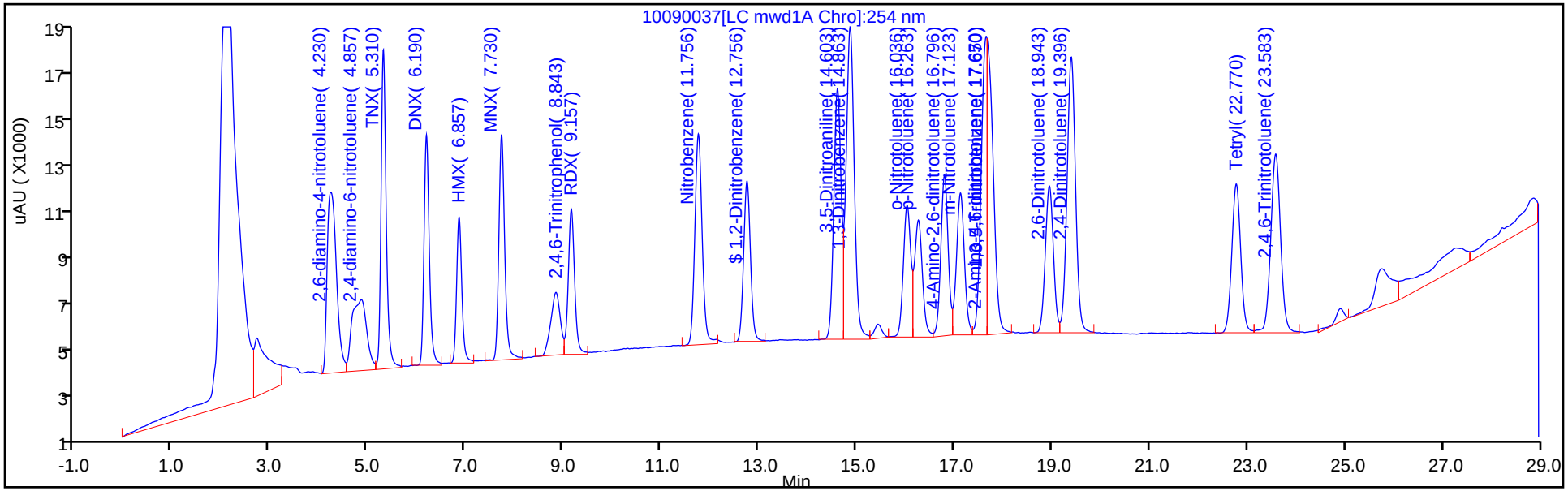
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Eurofins Denver

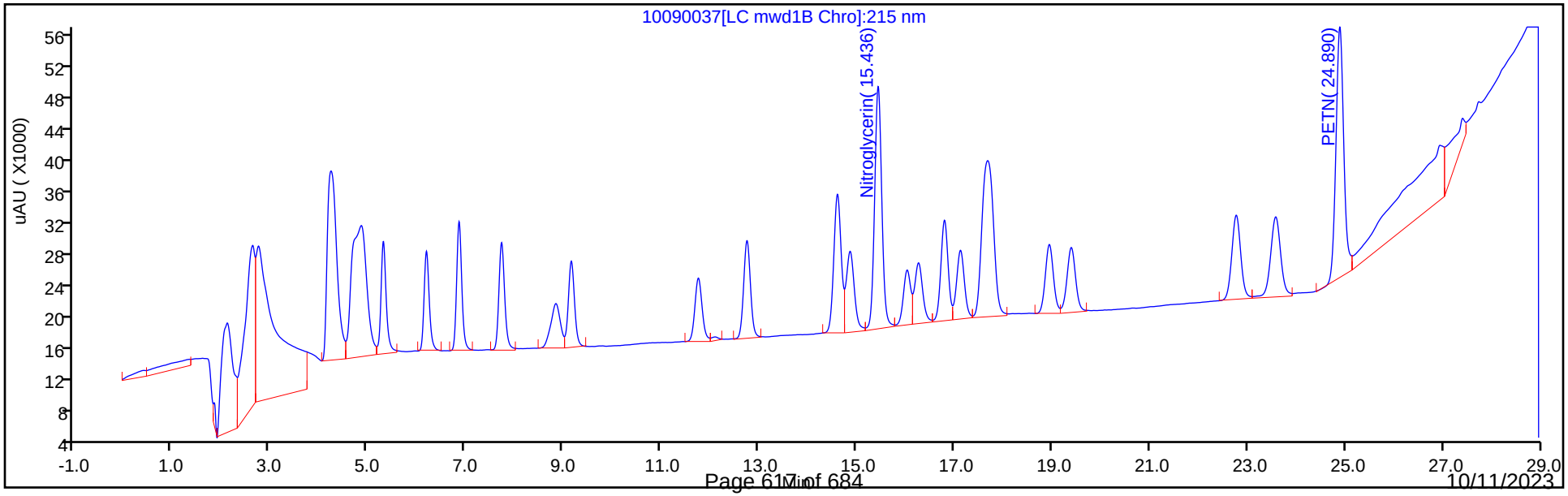
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Injection Date:	10-Oct-2023 08:17:18	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

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



10/11/2023
10:32 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/41 | Calibration Date: 10/10/2023 10:37

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 00:40

Lab File ID: 10090041.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	379242		242	251	-3.5	20.0
DNX	Ave	288451	283888		246	250	-1.6	20.0
HMX	Ave	190100	183048		241	250	-3.7	20.0
MNX	Ave	265061	263071		290	292	-0.8	20.0
Picric acid	Lin2		141008		234	250	-6.3	20.0
RDX	Ave	220484	212924		241	250	-3.4	20.0
Nitrobenzene	Ave	384007	351700		229	250	-8.4	20.0
3,5-Dinitroaniline	Lin2		418796		253	250	1.1	20.0
1,3-Dinitrobenzene	Ave	585449	586720		251	250	0.2	20.0
Nitroglycerin	Ave	128462	127681		2480	2500	-0.6	20.0
2-Nitrotoluene	Ave	237596	226872		239	250	-4.5	20.0
4-Nitrotoluene	Ave	213737	210176		246	250	-1.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	274044		252	250	0.7	20.0
3-Nitrotoluene	Ave	270588	261080		241	250	-3.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	374136		239	250	-4.5	20.0
1,3,5-Trinitrobenzene	Ave	398781	425912		267	250	6.8	20.0
2,6-Dinitrotoluene	Ave	274271	277100		253	250	1.0	20.0
2,4-Dinitrotoluene	Ave	544319	541184		249	250	-0.6	20.0
Tetryl	Ave	307961	308652		251	250	0.2	20.0
2,4,6-Trinitrotoluene	Ave	394912	409768		259	250	3.8	20.0
PETN	Lin2		143107		2710	2500	8.3	20.0
1,2-Dinitrobenzene	Ave	266741	256960		241	250	-3.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/41 Calibration Date: 10/10/2023 10:37

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10090041.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.32	5.16	5.46
DNX	6.20	6.04	6.34
HMX	6.86	6.71	7.01
MNX	7.73	7.58	7.88
Picric acid	8.83	8.66	8.96
RDX	9.16	9.01	9.31
Nitrobenzene	11.76	11.60	11.90
3,5-Dinitroaniline	14.60	14.45	14.75
1,3-Dinitrobenzene	14.86	14.71	15.01
Nitroglycerin	15.43	15.27	15.57
2-Nitrotoluene	16.02	15.87	16.17
4-Nitrotoluene	16.25	16.09	16.39
4-Amino-2,6-dinitrotoluene	16.78	16.63	16.93
3-Nitrotoluene	17.11	16.95	17.25
2-Amino-4,6-dinitrotoluene	17.63	17.48	17.78
1,3,5-Trinitrobenzene	17.65	17.51	17.81
2,6-Dinitrotoluene	18.93	18.77	19.07
2,4-Dinitrotoluene	19.38	19.23	19.53
Tetryl	22.76	22.59	22.89
2,4,6-Trinitrotoluene	23.57	23.41	23.71
PETN	24.88	24.71	25.01
1,2-Dinitrobenzene	12.75	12.59	12.89

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090041.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 10-Oct-2023 10:37:04 ALS Bottle#: 7 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:50 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 15:18:19

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1	4.236	4.237	-0.001	97550	0.2500	0.2427	
2	2,4-diamino-6-nitrotoluene	1	4.863	4.864	-0.001	60937	0.2500	0.2408	
3	TNX	1	5.316	5.310	0.006	95095	0.2508	0.2420	
4	DNX	1	6.196	6.190	0.006	71043	0.2503	0.2463	
5	HMX	1	6.863	6.864	-0.001	45762	0.2500	0.2407	
6	MNX	1	7.729	7.730	-0.001	76751	0.2918	0.2896	
7	2,4,6-Trinitrophenol	1	8.829	8.810	0.019	35252	0.2500	0.2343	
8	RDX	1	9.156	9.157	-0.001	53231	0.2500	0.2414	
9	Nitrobenzene	1	11.756	11.750	0.006	87925	0.2500	0.2290	
$ 10	1,2-Dinitrobenzene	1	12.749	12.743	0.006	64240	0.2500	0.2408	
11	3,5-Dinitroaniline	1	14.596	14.597	-0.001	104699	0.2500	0.2528	
12	1,3-Dinitrobenzene	1	14.862	14.857	0.005	146680	0.2500	0.2505	
13	Nitroglycerin	2	15.429	15.423	0.006	319203	2.50	2.48	
14	o-Nitrotoluene	1	16.022	16.017	0.005	56718	0.2500	0.2387	
16	p-Nitrotoluene	1	16.249	16.243	0.006	52544	0.2500	0.2458	
17	4-Amino-2,6-dinitrotoluene	1	16.776	16.777	-0.001	68511	0.2500	0.2518	
18	m-Nitrotoluene	1	17.109	17.103	0.006	65270	0.2500	0.2412	
19	2-Amino-4,6-dinitrotoluene	1	17.629	17.630	-0.001	93534	0.2500	0.2387	M
20	1,3,5-Trinitrobenzene	1	17.649	17.663	-0.014	106478	0.2500	0.2670	Ma
21	2,6-Dinitrotoluene	1	18.929	18.923	0.006	69275	0.2500	0.2526	
22	2,4-Dinitrotoluene	1	19.376	19.377	-0.001	135296	0.2500	0.2486	
23	Tetryl	1	22.756	22.744	0.012	77163	0.2500	0.2506	
24	2,4,6-Trinitrotoluene	1	23.569	23.557	0.012	102442	0.2500	0.2594	
25	PETN	2	24.876	24.864	0.012	357768	2.50	2.71	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

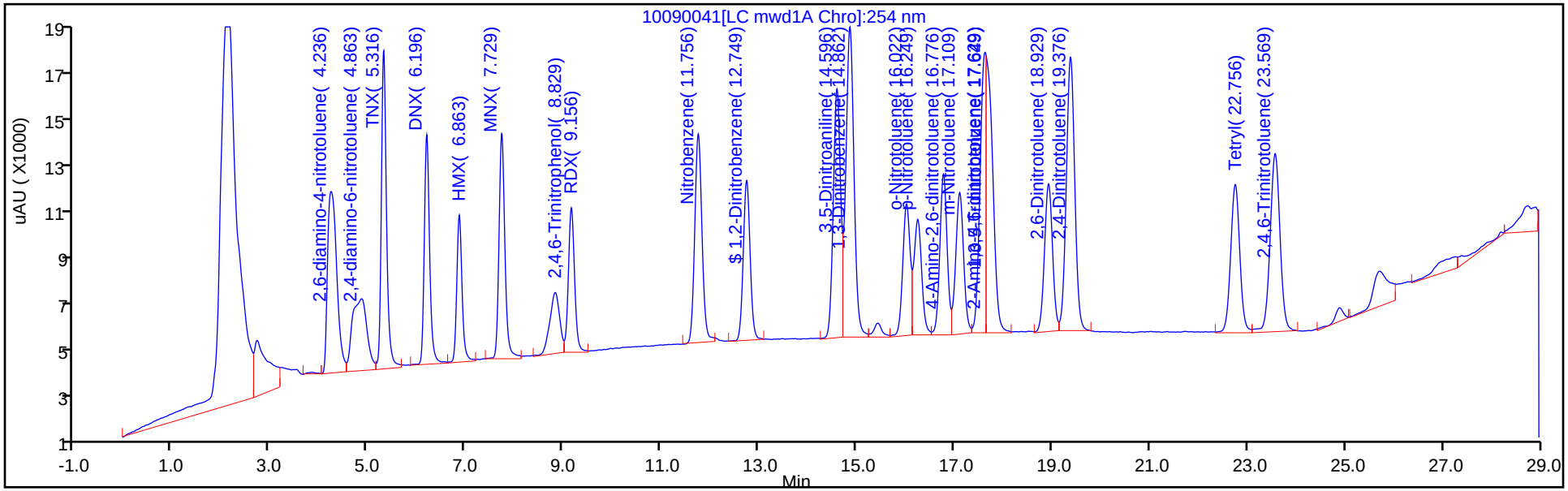
Report Date: 10-Oct-2023 15:18:50 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

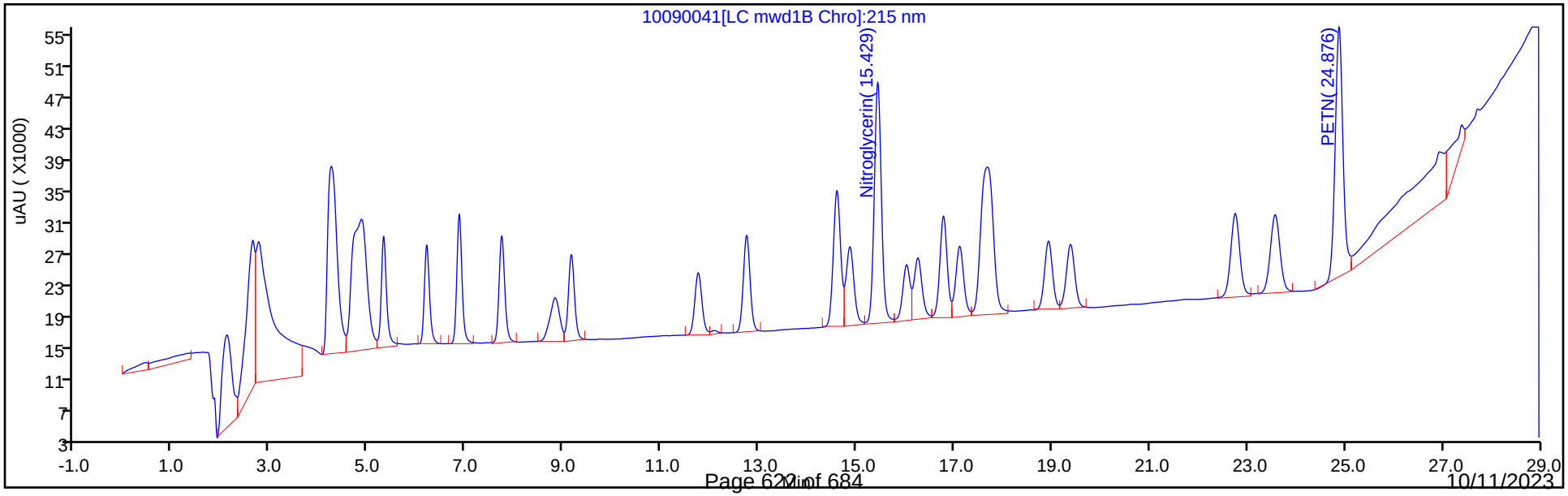
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090041.D

Injection Date:	10-Oct-2023 10:37:04	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	41
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



10/11/2023
10:32 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

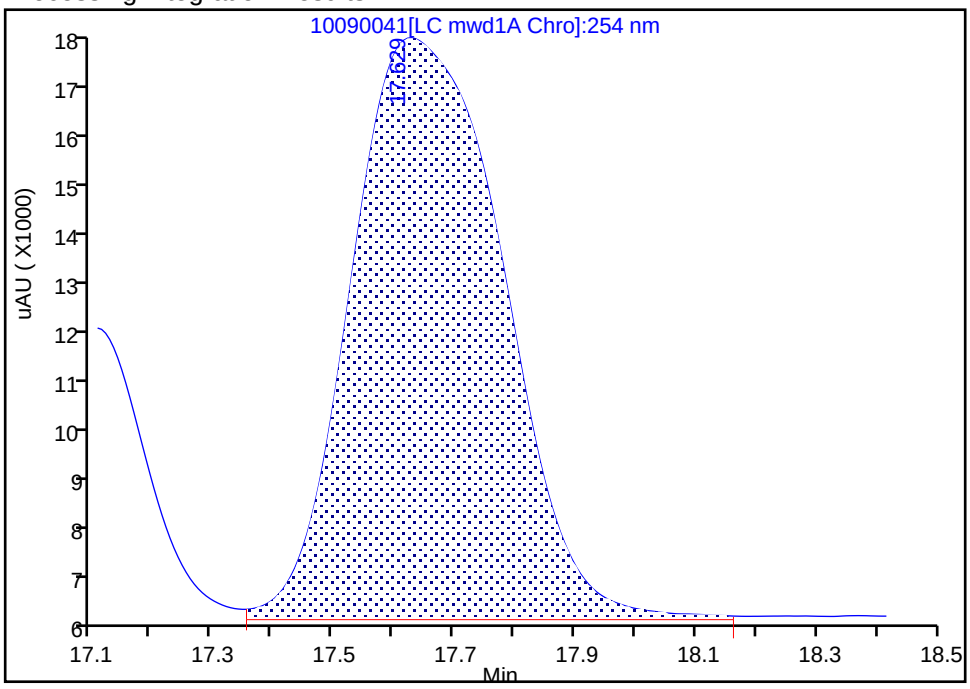
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Injection Date:	10-Oct-2023 10:37:04	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

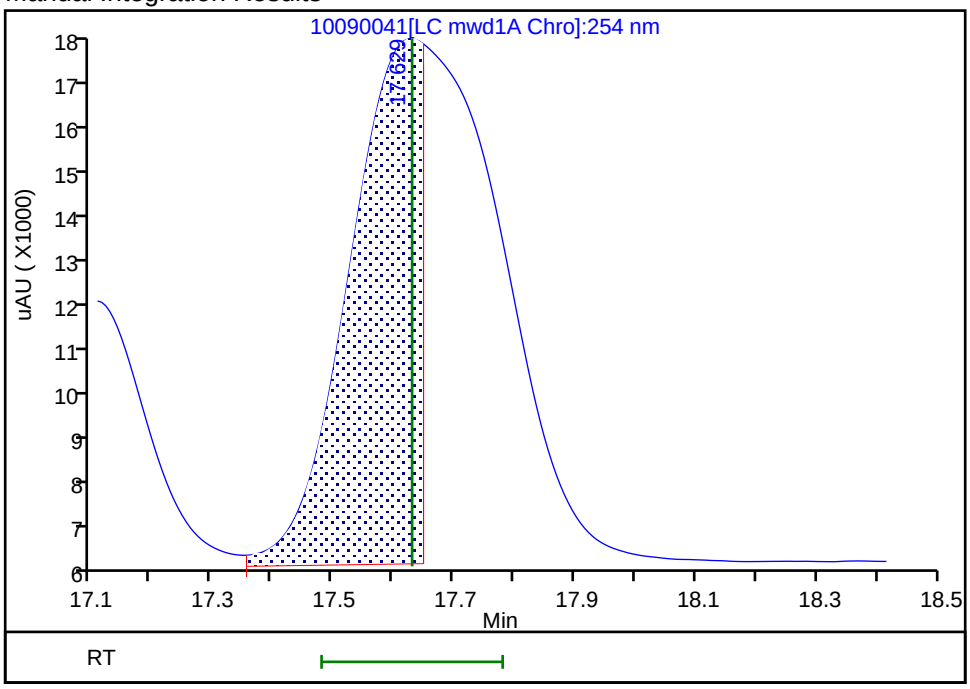
Processing Integration Results

RT: 17.63
Area: 200001
Amount: 0.510439
Amount Units: ug/ml



Manual Integration Results

RT: 17.63
Area: 93534
Amount: 0.238716
Amount Units: ug/ml



Reviewer: K8YG, 10-Oct-2023 15:18:11 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

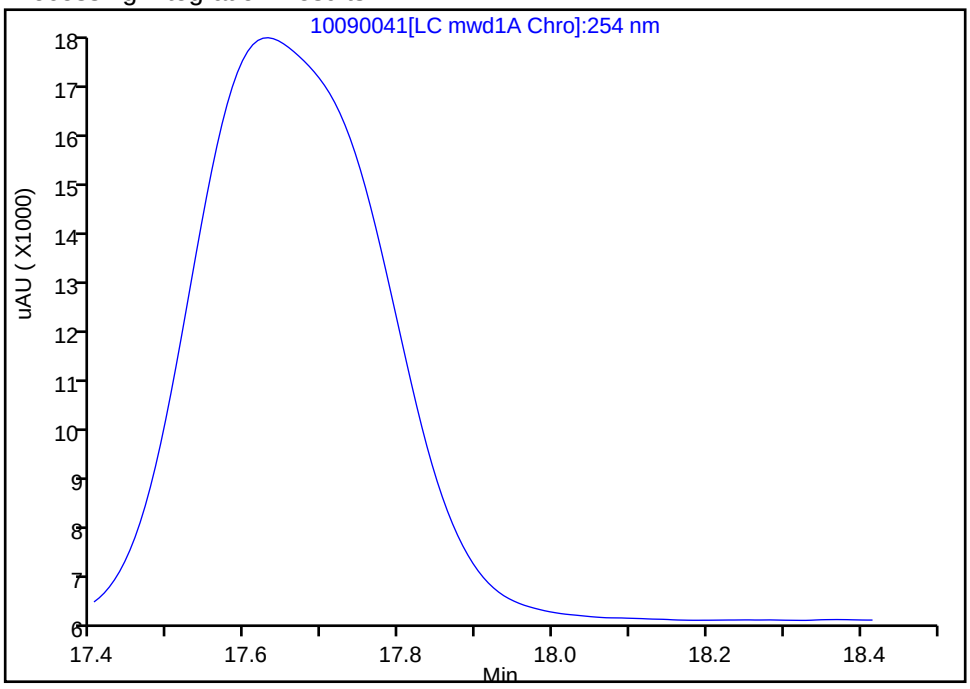
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090041.D				
Injection Date:	10-Oct-2023 10:37:04	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

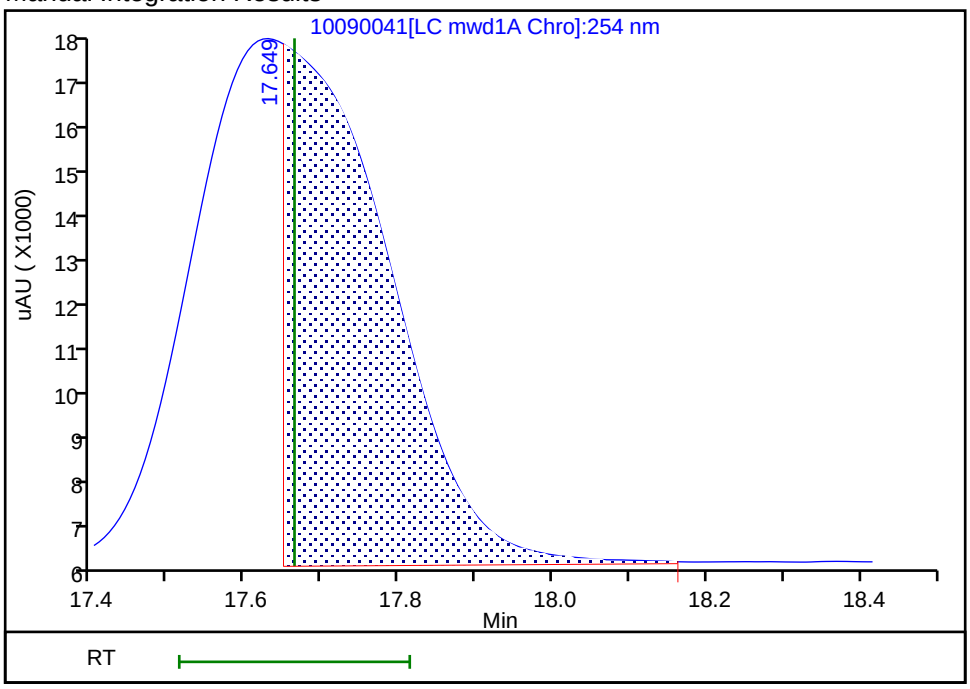
Not Detected
Expected RT: 17.66

Processing Integration Results



Manual Integration Results

RT: 17.65
Area: 106478
Amount: 0.267009
Amount Units: ug/ml



Reviewer: K8YG, 10-Oct-2023 15:18:13 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/41 Calibration Date: 10/10/2023 10:37

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10090041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		390200		243	250	-2.9	20.0
2,4-diamino-6-nitrotoluene	Lin2		243748		241	250	-3.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Lab Sample ID: CCV 280-629022/41 Calibration Date: 10/10/2023 10:37

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10090041.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.24	4.09	4.39
2,4-diamino-6-nitrotoluene	4.86	4.71	5.01

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090041.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 10-Oct-2023 10:37:04 ALS Bottle#: 7 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 10-Oct-2023 15:18:50 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1622

First Level Reviewer: K8YG Date: 10-Oct-2023 15:18:19

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1	4.236	4.237	-0.001	97550	0.2500	0.2427	
2	2,4-diamino-6-nitrotoluene	1	4.863	4.864	-0.001	60937	0.2500	0.2408	
3	TNX	1	5.316	5.310	0.006	95095	0.2508	0.2420	
4	DNX	1	6.196	6.190	0.006	71043	0.2503	0.2463	
5	HMX	1	6.863	6.864	-0.001	45762	0.2500	0.2407	
6	MNX	1	7.729	7.730	-0.001	76751	0.2918	0.2896	
7	2,4,6-Trinitrophenol	1	8.829	8.810	0.019	35252	0.2500	0.2343	
8	RDX	1	9.156	9.157	-0.001	53231	0.2500	0.2414	
9	Nitrobenzene	1	11.756	11.750	0.006	87925	0.2500	0.2290	
$ 10	1,2-Dinitrobenzene	1	12.749	12.743	0.006	64240	0.2500	0.2408	
11	3,5-Dinitroaniline	1	14.596	14.597	-0.001	104699	0.2500	0.2528	
12	1,3-Dinitrobenzene	1	14.862	14.857	0.005	146680	0.2500	0.2505	
13	Nitroglycerin	2	15.429	15.423	0.006	319203	2.50	2.48	
14	o-Nitrotoluene	1	16.022	16.017	0.005	56718	0.2500	0.2387	
16	p-Nitrotoluene	1	16.249	16.243	0.006	52544	0.2500	0.2458	
17	4-Amino-2,6-dinitrotoluene	1	16.776	16.777	-0.001	68511	0.2500	0.2518	
18	m-Nitrotoluene	1	17.109	17.103	0.006	65270	0.2500	0.2412	
19	2-Amino-4,6-dinitrotoluene	1	17.629	17.630	-0.001	93534	0.2500	0.2387	M
20	1,3,5-Trinitrobenzene	1	17.649	17.663	-0.014	106478	0.2500	0.2670	Ma
21	2,6-Dinitrotoluene	1	18.929	18.923	0.006	69275	0.2500	0.2526	
22	2,4-Dinitrotoluene	1	19.376	19.377	-0.001	135296	0.2500	0.2486	
23	Tetryl	1	22.756	22.744	0.012	77163	0.2500	0.2506	
24	2,4,6-Trinitrotoluene	1	23.569	23.557	0.012	102442	0.2500	0.2594	
25	PETN	2	24.876	24.864	0.012	357768	2.50	2.71	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

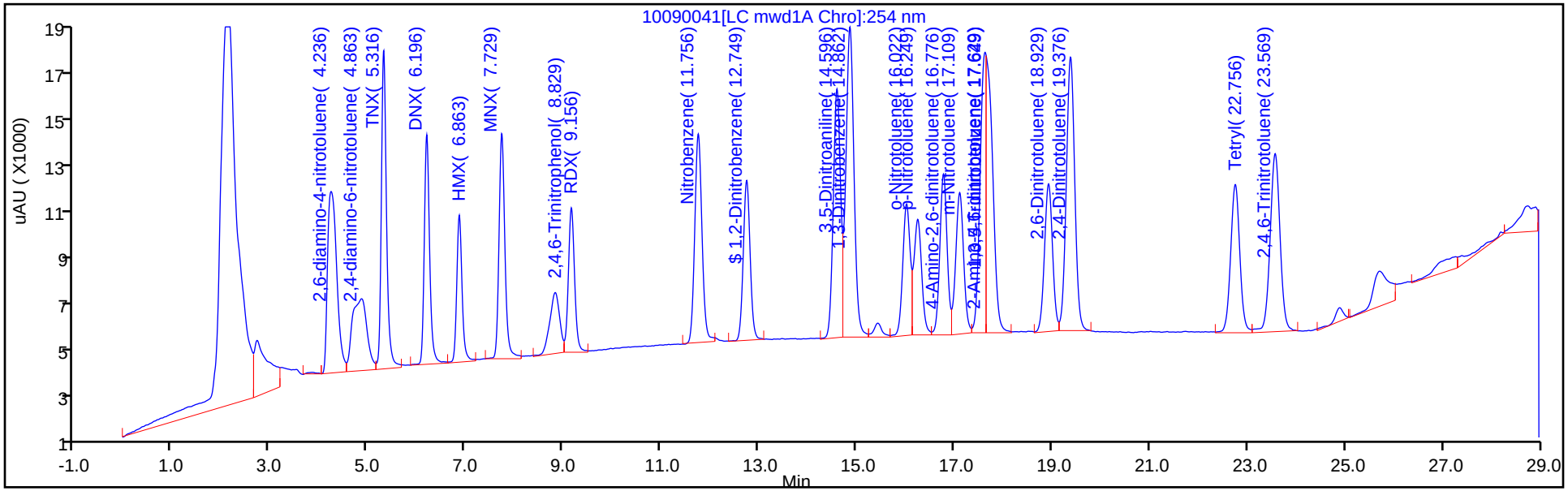
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Eurofins Denver

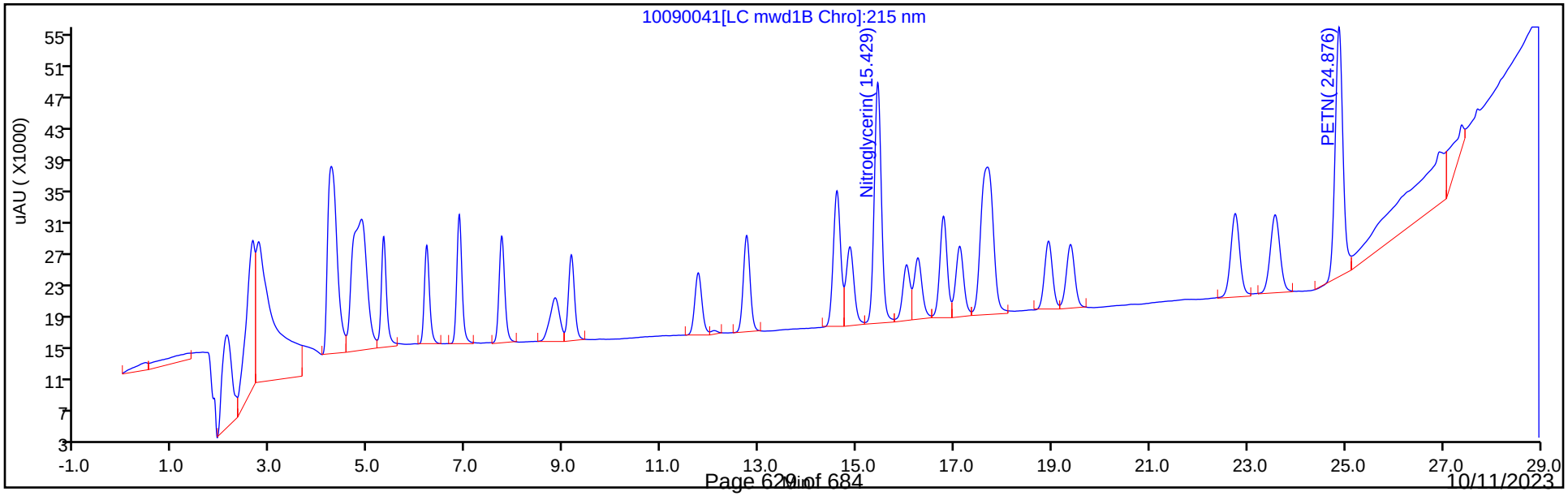
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231009-126323.b\10090041.D

Injection Date:	10-Oct-2023 10:37:04	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	41
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



10/11/2023
10:32 AM

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-628078/1-A

Matrix: Water | Lab File ID: 10070037.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 500(mL) | Date Analyzed: 10/08/2023 00:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.045
6629-29-4	2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.90	0.43
121-14-2	2,4-Dinitrotoluene	0.080	U Q	0.10	0.080	0.027
59229-75-3	2,6-diamino-4-nitrotoluene	0.90	U	1.0	0.90	0.22
606-20-2	2,6-Dinitrotoluene	0.080	U Q	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U Q	0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	0.30	U Q	0.40	0.30	0.13
99-08-1	3-Nitrotoluene	0.35	U Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U Q	0.41	0.40	0.10
80251-29-2	DNX	0.25	U Q	0.50	0.25	0.097
2691-41-0	HMX	0.20	U Q	0.21	0.20	0.088
5755-27-1	MNX	0.29	U Q	0.50	0.29	0.093
98-95-3	Nitrobenzene	0.20	U Q	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U Q	2.1	2.0	0.92
78-11-5	PETN	1.0	U Q	1.1	1.0	0.45
121-82-4	RDX	0.20	U Q	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U Q	0.11	0.10	0.032
13980-04-6	TNX	0.25	U Q	0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	79	Q M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070037.D
Lims ID: MB 280-628078/1-A
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2023 00:56:03 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-628078/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:20

	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		6.438				ND	7
	3 TNX	1		6.450				ND	
	4 HMX	1		6.570				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.625				ND	
	6 DNX	1		6.776				ND	
	7 MNX	1		7.196				ND	
	8 RDX	1		7.576				ND	
	9 2,4,6-Trinitrophenol	1		7.943				ND	
$	10 1,2-Dinitrobenzene	1	8.519	8.516	0.003	19540	0.2000	0.1577	M
	11 1,3,5-Trinitrobenzene	1		8.643				ND	M
	12 1,3-Dinitrobenzene	1		9.250				ND	
	13 Nitrobenzene	1		9.616				ND	
	14 3,5-Dinitroaniline	1		9.830				ND	
	15 Tetryl	1		9.956				ND	
	16 Nitroglycerin	2		10.410				ND	
	17 2,4,6-Trinitrotoluene	1		10.843				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256				ND	
	20 2,6-Dinitrotoluene	1		11.423				ND	
	21 2,4-Dinitrotoluene	1		11.590				ND	
	22 o-Nitrotoluene	1		12.390				ND	
	23 p-Nitrotoluene	1		12.796				ND	
	24 m-Nitrotoluene	1		13.356				ND	
	25 PETN	2		14.470				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated

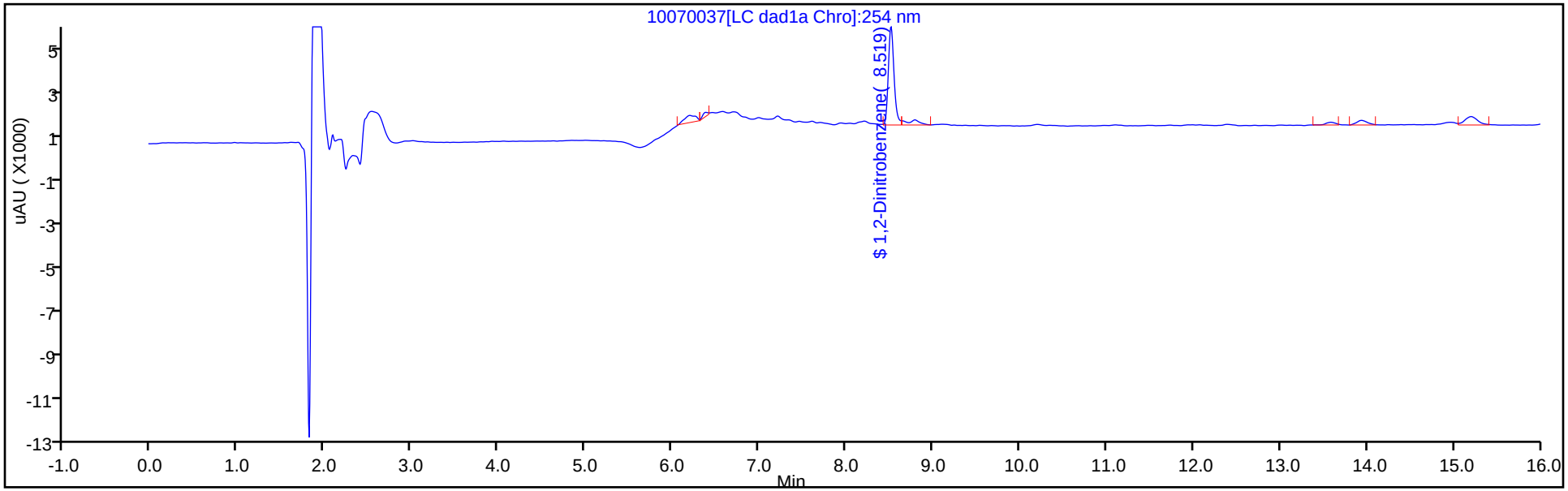
Report Date: 09-Oct-2023 11:17:07 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

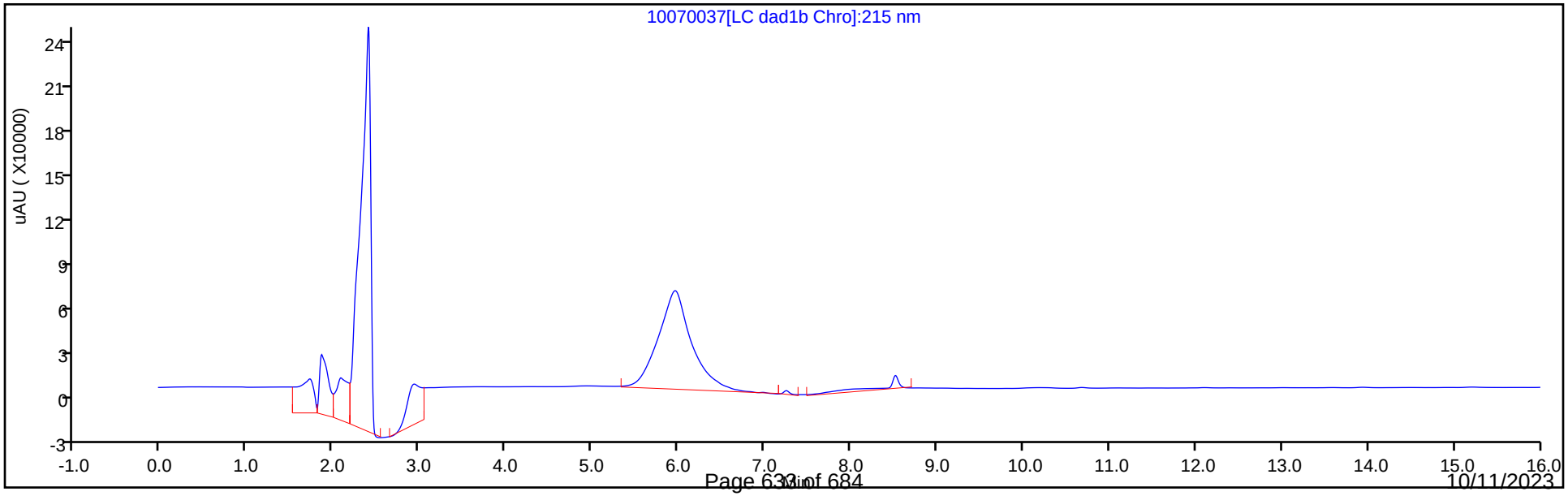
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070037.d

Injection Date:	08-Oct-2023 00:56:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-628078/1-A			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
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\20231007-126276.b\10070037.D
Lims ID: MB 280-628078/1-A
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2023 00:56:03 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-628078/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1577	78.85

Manual Integration/User Assign Peak Report

Eurofins Denver

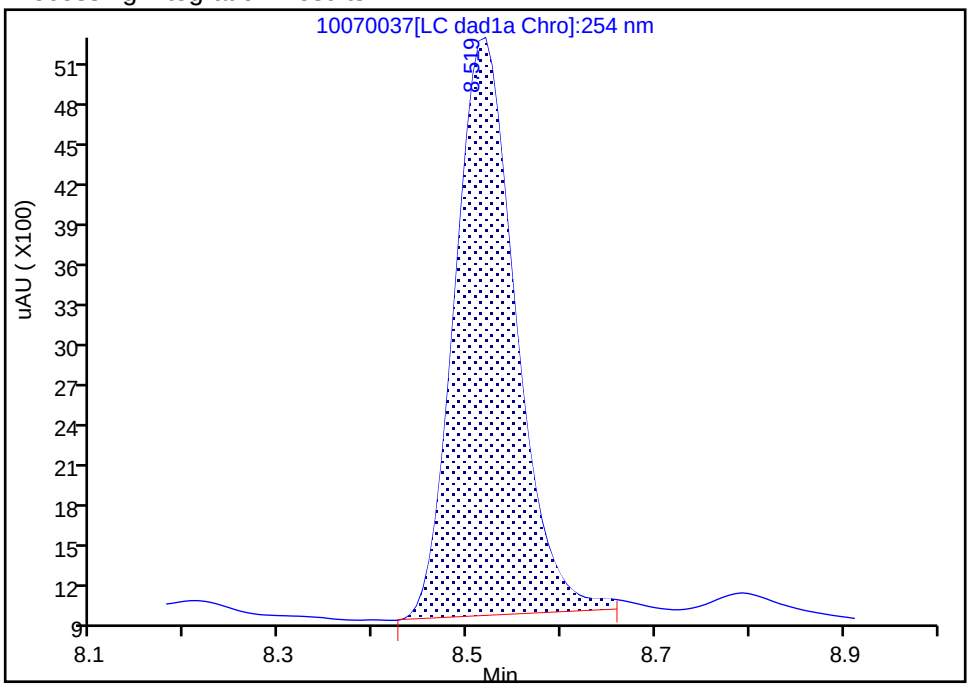
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070037.d
Injection Date: 08-Oct-2023 00:56:03 Instrument ID: CHHPLC_X3
Lims ID: MB 280-628078/1-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

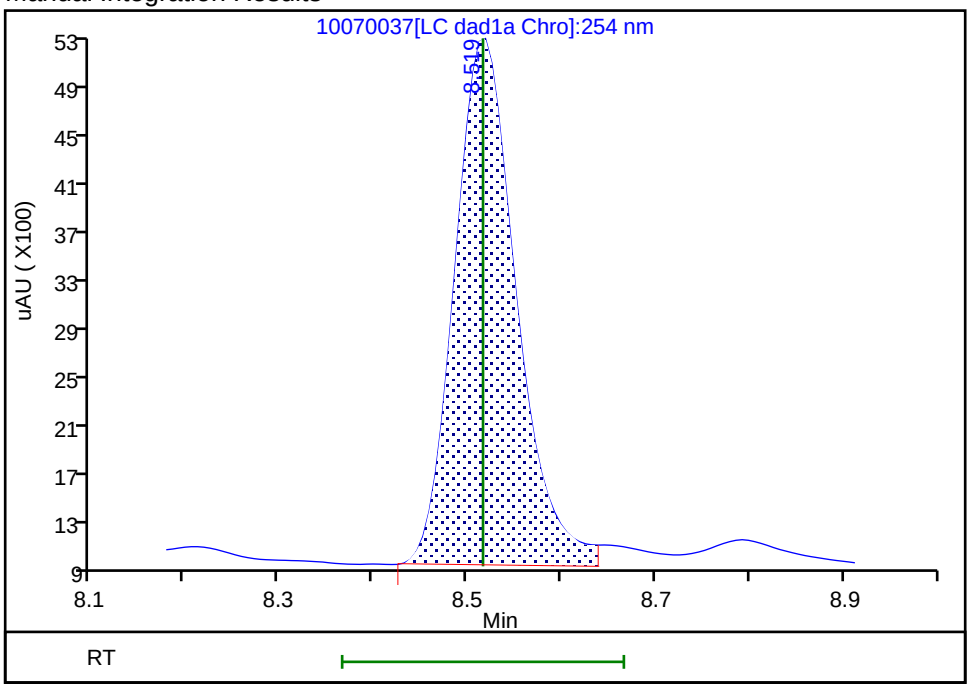
Processing Integration Results

RT: 8.52
Area: 19164
Amount: 0.154660
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 19540
Amount: 0.157694
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:05:40 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-628078/2-A

Matrix: Water | Lab File ID: 10070038.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 500(mL) | Date Analyzed: 10/08/2023 01:19

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.25		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.11		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.02		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	2.02		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.97		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.74		0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	1.86		0.40	0.30	0.13
99-08-1	3-Nitrotoluene	1.70		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.82		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.62		0.41	0.40	0.10
80251-29-2	DNX	2.03	M	0.50	0.25	0.097
2691-41-0	HMX	1.93	M	0.21	0.20	0.088
5755-27-1	MNX	2.30		0.50	0.29	0.093
98-95-3	Nitrobenzene	1.93		0.21	0.20	0.091
55-63-0	Nitroglycerin	21.9		2.1	2.0	0.92
78-11-5	PETN	22.7		1.1	1.0	0.45
121-82-4	RDX	1.97		0.21	0.20	0.052
479-45-8	Tetryl	2.12		0.11	0.10	0.032
13980-04-6	TNX	1.84	M	0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070038.D
Lims ID: LCS 280-628078/2-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2023 01:19:05 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-628078/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:06:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.440	6.450	-0.010	36922	0.2002	0.1839	M
4 HMX	1	6.566	6.570	-0.004	18173	0.2000	0.1928	M
6 DNX	1	6.766	6.776	-0.010	29367	0.2008	0.2032	M
7 MNX	1	7.193	7.196	-0.003	31878	0.2342	0.2299	
8 RDX	1	7.573	7.576	-0.003	21748	0.2000	0.1968	
9 2,4,6-Trinitrophenol	1	7.940	7.943	-0.003	18057	0.2000	0.2319	
$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	24478	0.2000	0.1975	
11 1,3,5-Trinitrobenzene	1	8.646	8.643	0.003	48669	0.2000	0.2252	
12 1,3-Dinitrobenzene	1	9.260	9.250	0.010	61997	0.2000	0.2113	
13 Nitrobenzene	1	9.626	9.616	0.010	37171	0.2000	0.1929	
14 3,5-Dinitroaniline	1	9.840	9.830	0.010	41664	0.2000	0.1856	
15 Tetryl	1	9.980	9.956	0.024	35430	0.2000	0.2118	
16 Nitroglycerin	2	10.426	10.410	0.016	141559	2.00	2.19	
17 2,4,6-Trinitrotoluene	1	10.860	10.843	0.017	41359	0.2000	0.2018	
18 4-Amino-2,6-dinitrotoluene	1	11.033	11.010	0.023	27216	0.2000	0.1820	
19 2-Amino-4,6-dinitrotoluene	1	11.280	11.256	0.024	38105	0.2000	0.1967	
20 2,6-Dinitrotoluene	1	11.440	11.423	0.017	28807	0.2000	0.2020	
21 2,4-Dinitrotoluene	1	11.606	11.590	0.016	59718	0.2000	0.2020	
22 o-Nitrotoluene	1	12.413	12.390	0.023	21946	0.2000	0.1740	
23 p-Nitrotoluene	1	12.826	12.796	0.030	17873	0.2000	0.1624	
24 m-Nitrotoluene	1	13.386	13.356	0.030	23588	0.2000	0.1701	
25 PETN	2	14.520	14.470	0.050	163761	2.00	2.27	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

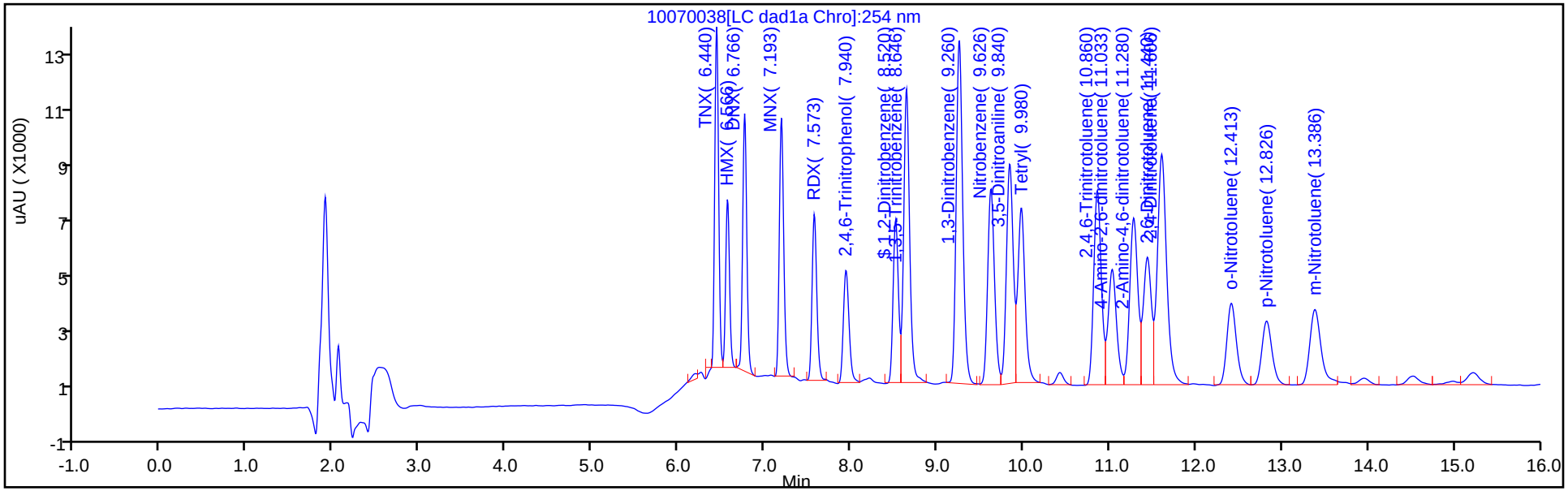
Report Date: 09-Oct-2023 11:17:08 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

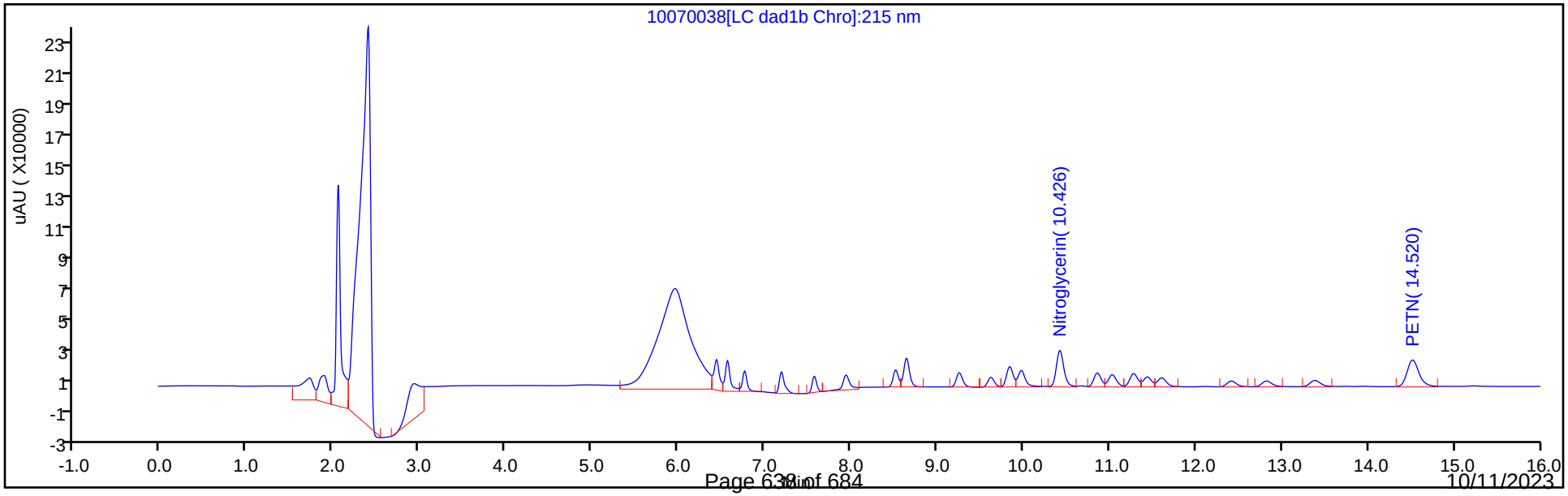
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070038.d

Injection Date:	08-Oct-2023 01:19:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-628078/2-A			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
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



10/11/2023
10:32 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070038.D				
Lims ID:	LCS 280-628078/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	08-Oct-2023 01:19:05	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-628078/2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:06	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 11:06:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1975	98.77

Manual Integration/User Assign Peak Report

Eurofins Denver

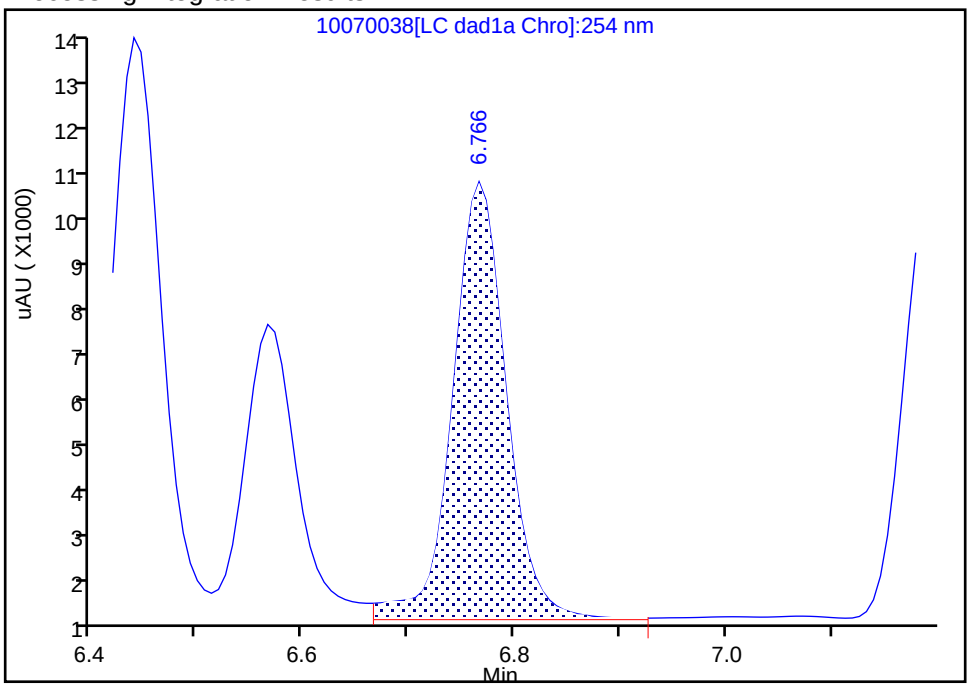
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Injection Date:	08-Oct-2023 01:19:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-628078/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

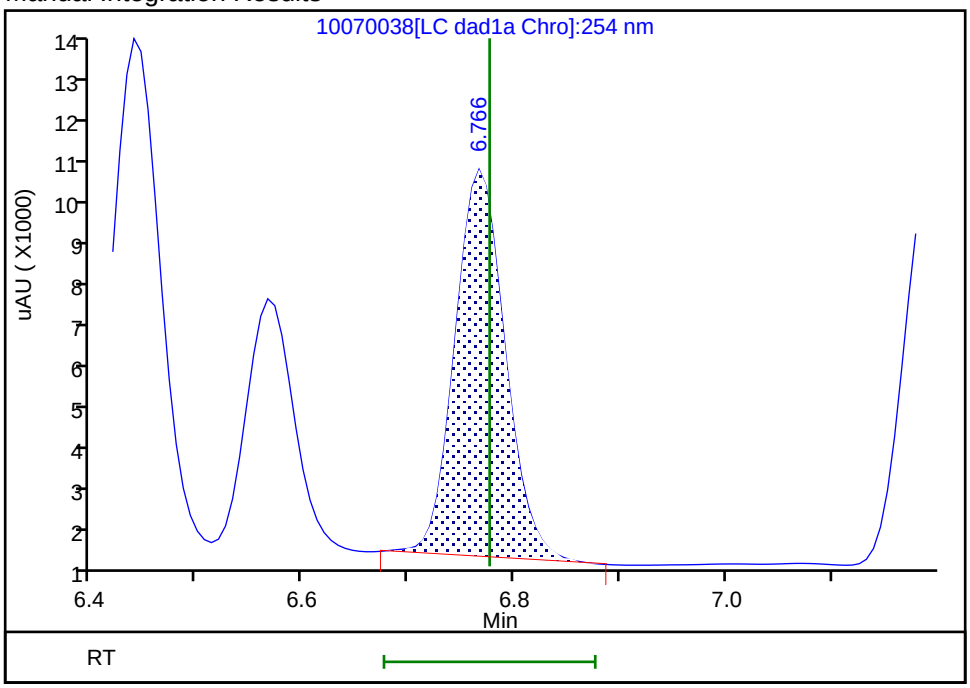
Processing Integration Results

RT: 6.77
Area: 32131
Amount: 0.222371
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 29367
Amount: 0.203242
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:00 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

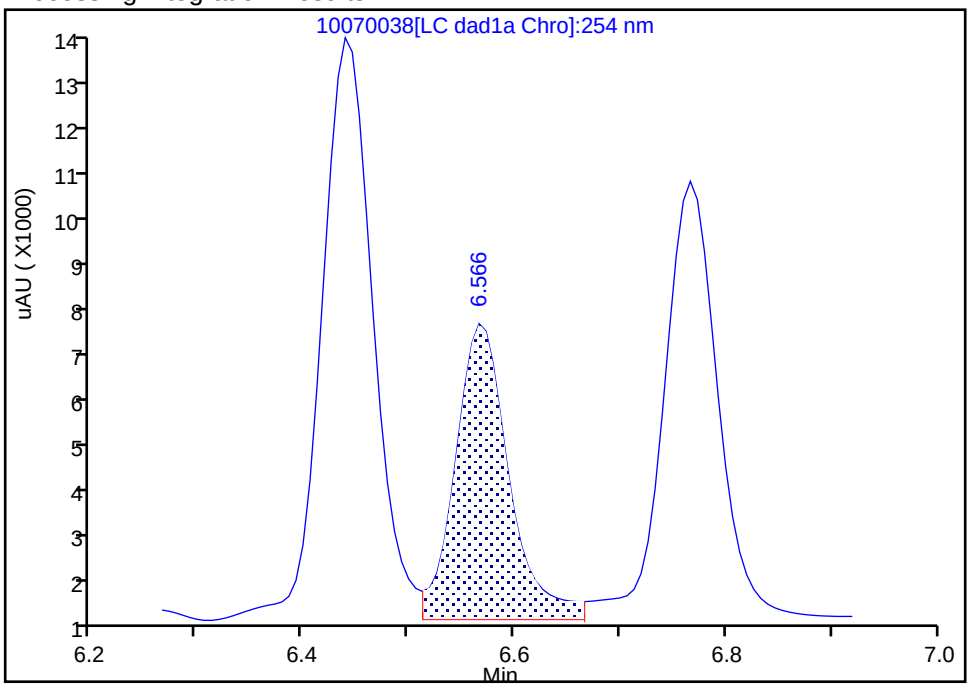
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Injection Date:	08-Oct-2023 01:19:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-628078/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

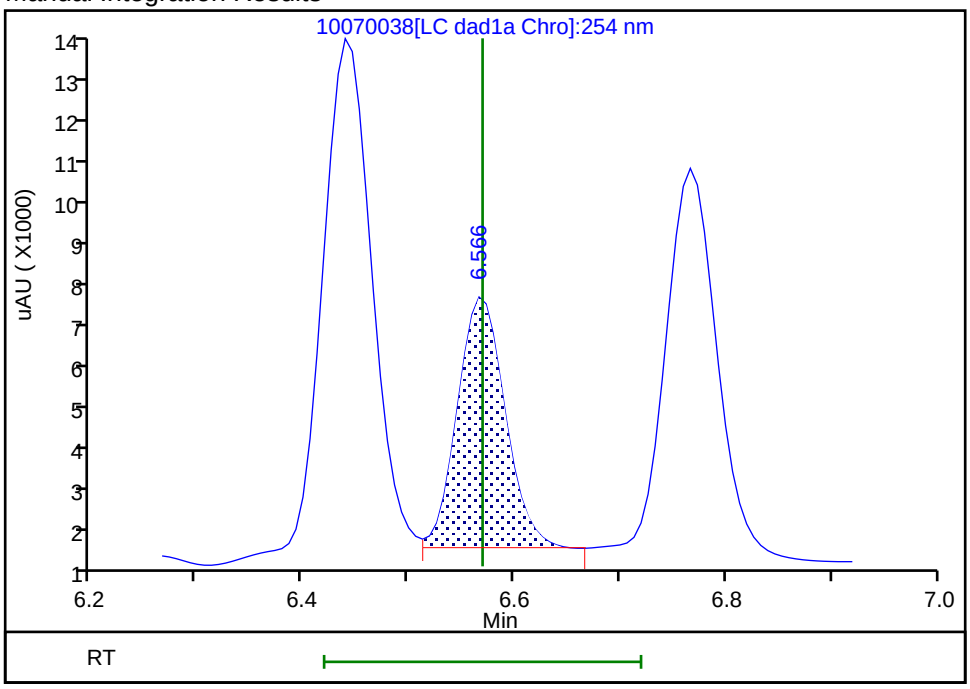
Processing Integration Results

RT: 6.57
Area: 21481
Amount: 0.227902
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 18173
Amount: 0.192806
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:05:51 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

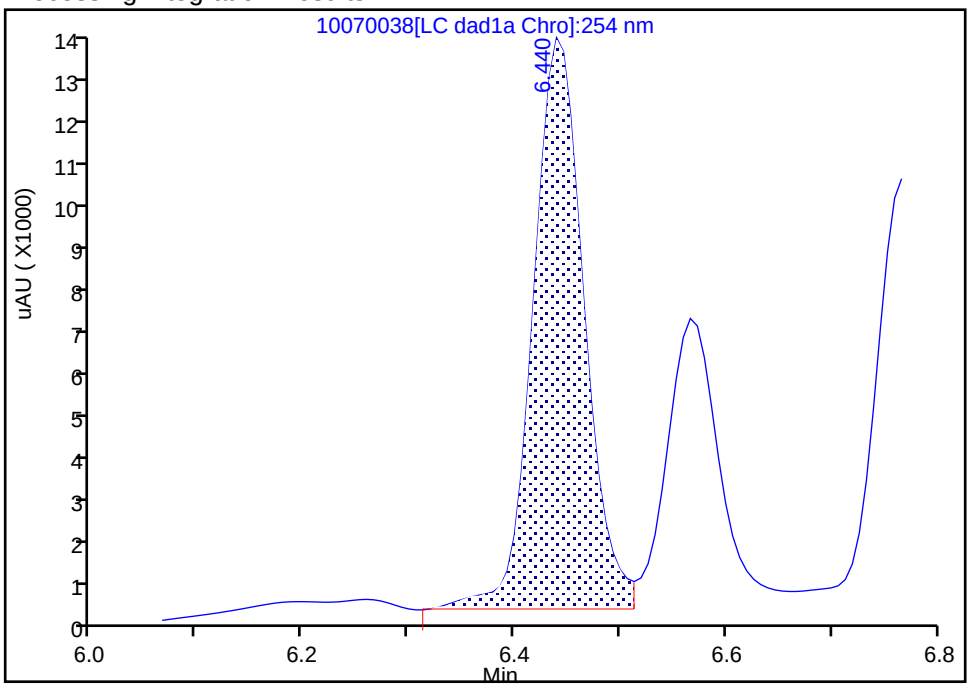
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070038.d				
Injection Date:	08-Oct-2023 01:19:05	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-628078/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

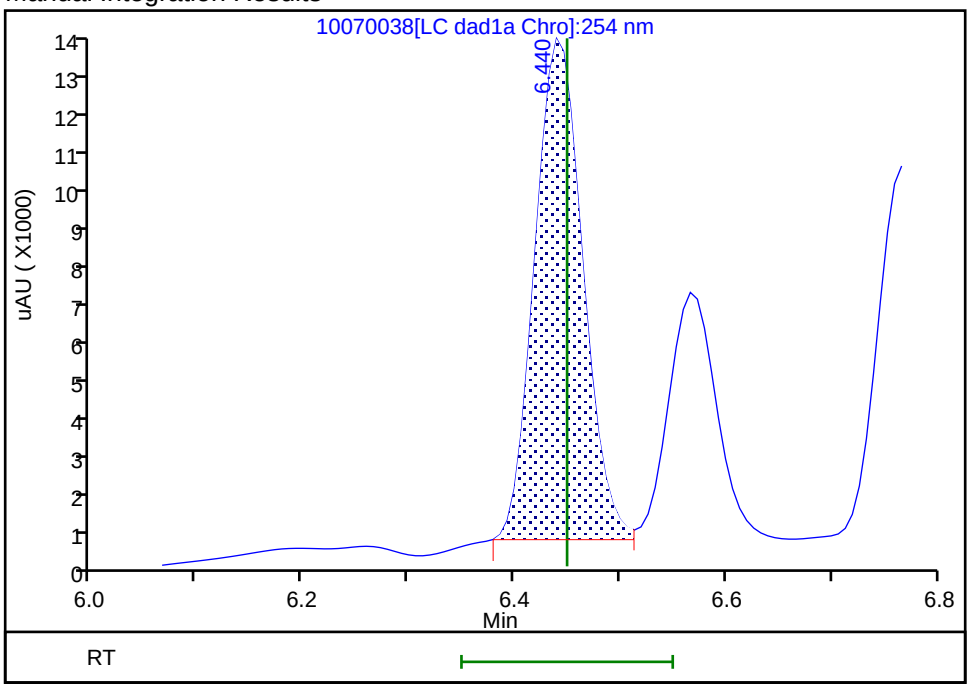
Processing Integration Results

RT: 6.44
Area: 40656
Amount: 0.202510
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 36922
Amount: 0.183910
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:05:56 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-628078/4-A

Matrix: Water | Lab File ID: 10070040.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 500(mL) | Date Analyzed: 10/08/2023 02:05

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	0.916	J M Q	1.0	0.90	0.43
59229-75-3	2,6-diamino-4-nitrotoluene	1.13	M Q	1.0	0.90	0.22

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\20231007-126276.b\10070040.D
Lims ID: LCS 280-628078/4-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2023 02:05:00 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-628078/4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:06:54

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1	6.440	6.438	0.002	25454	0.2000	0.1128	M
	5 2,4-diamino-6-nitrotoluene	1	6.627	6.625	0.002	13126	0.2000	0.0916	M
$	10 1,2-Dinitrobenzene	1	8.514	8.516	-0.002	22160	0.2000	0.1788	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

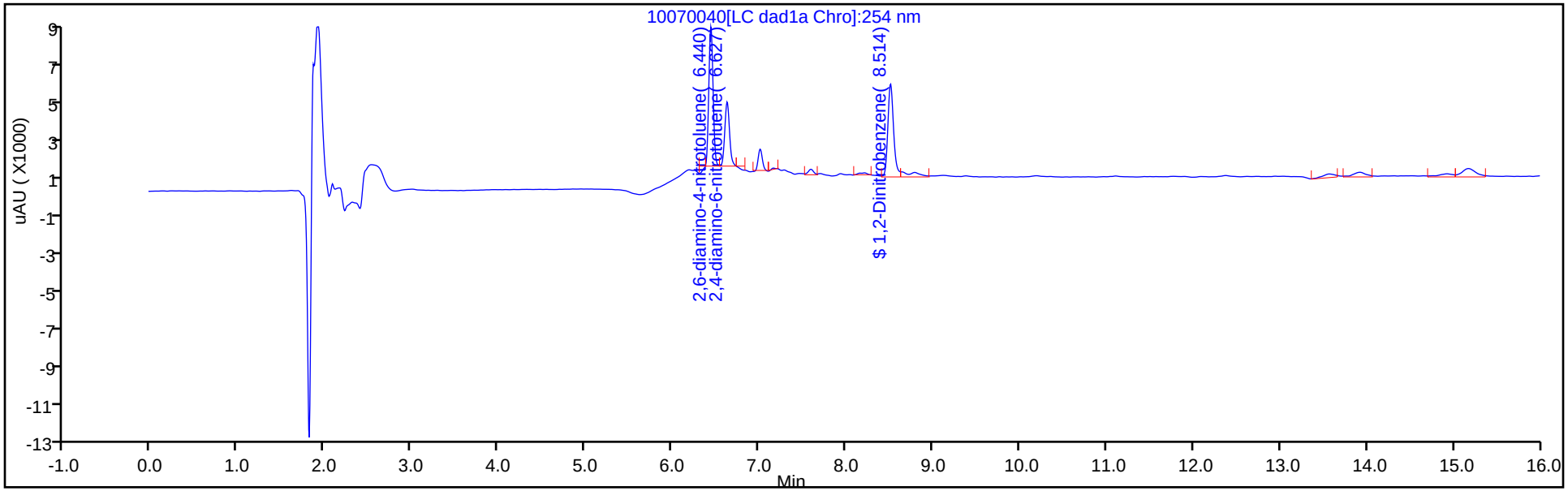
Report Date: 09-Oct-2023 11:17:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

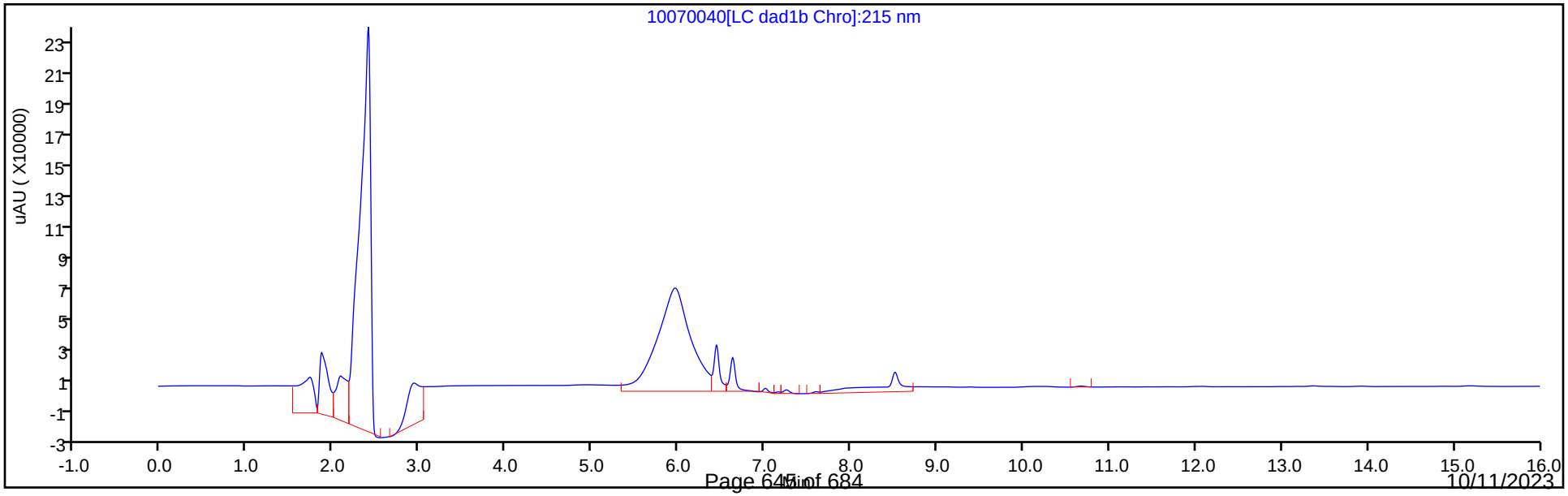
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070040.d

Injection Date:	08-Oct-2023 02:05:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-628078/4-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



10/11/2023
10:32 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070040.D
Lims ID: LCS 280-628078/4-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2023 02:05:00 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-628078/4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 11:06:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1788	89.42

Manual Integration/User Assign Peak Report

Eurofins Denver

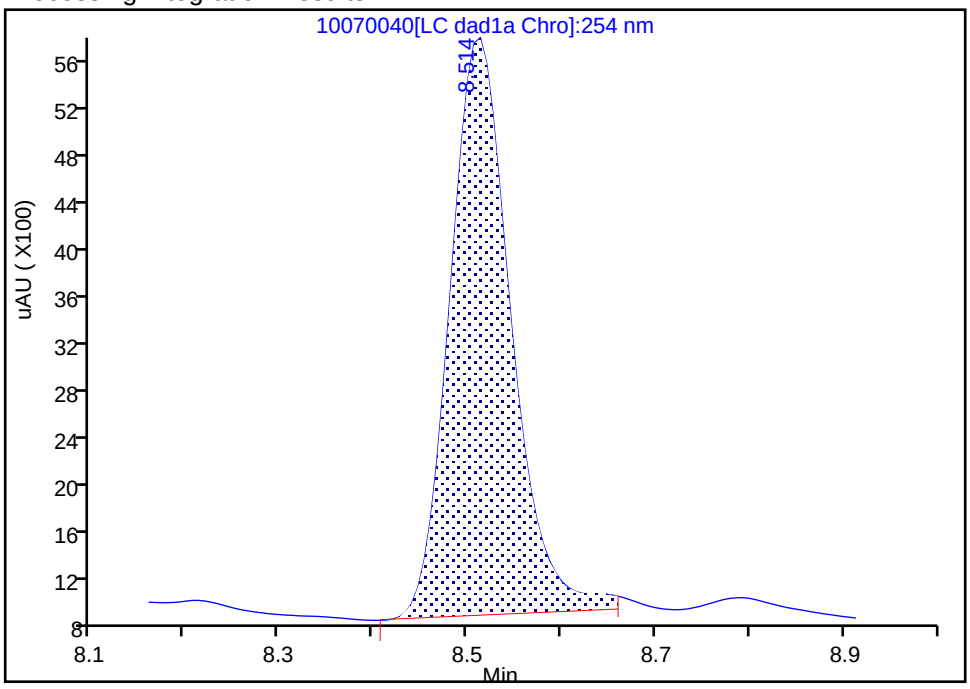
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070040.d
Injection Date: 08-Oct-2023 02:05:00 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-628078/4-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

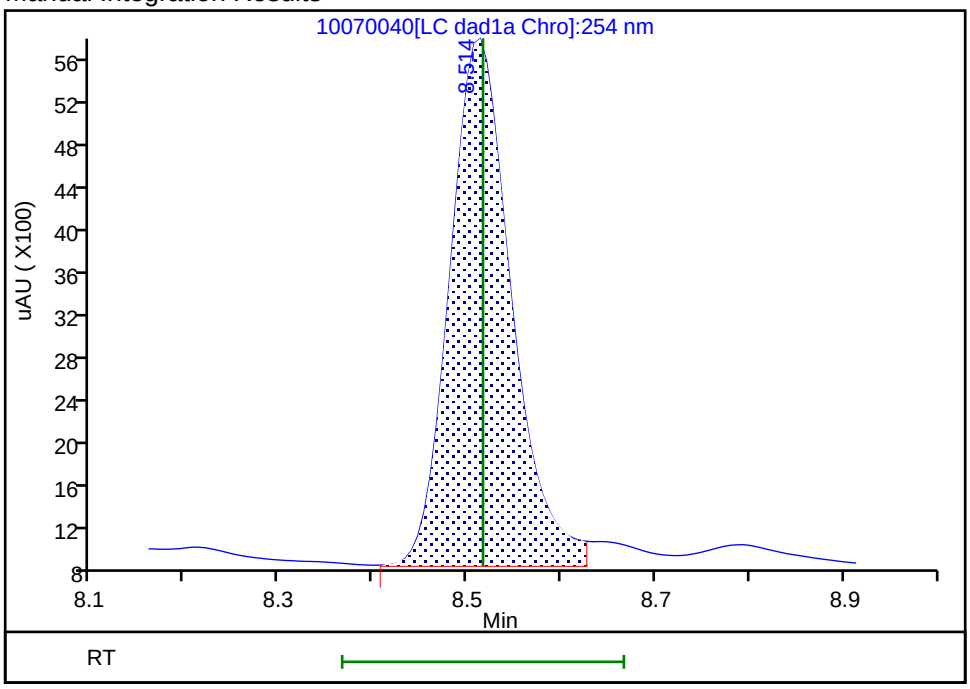
Processing Integration Results

RT: 8.51
Area: 21837
Amount: 0.176231
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 22160
Amount: 0.178838
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:49 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

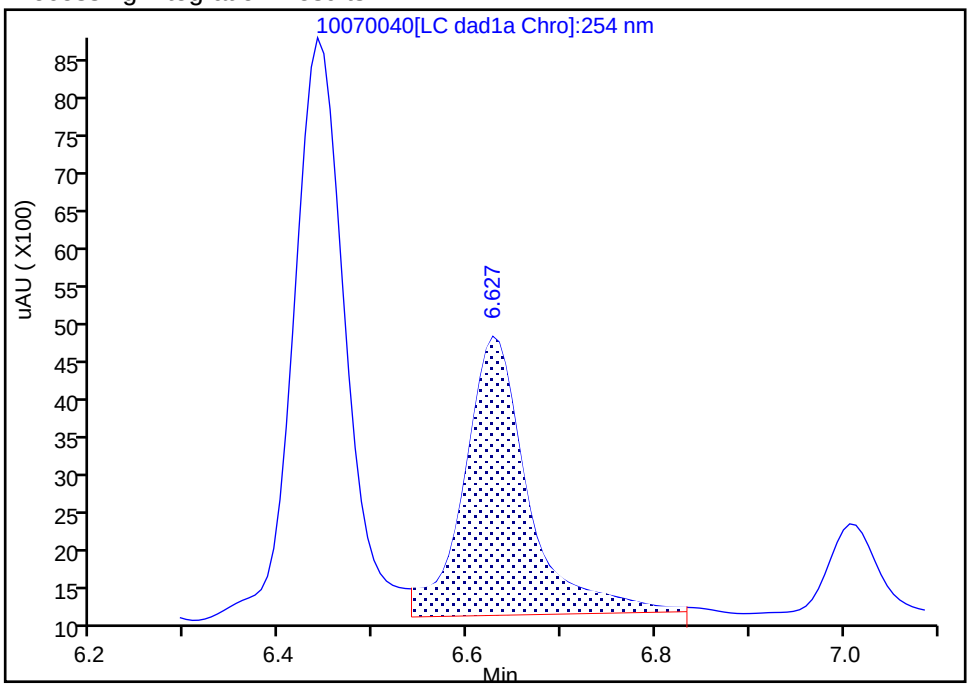
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Injection Date: 08-Oct-2023 02:05:00 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-628078/4-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

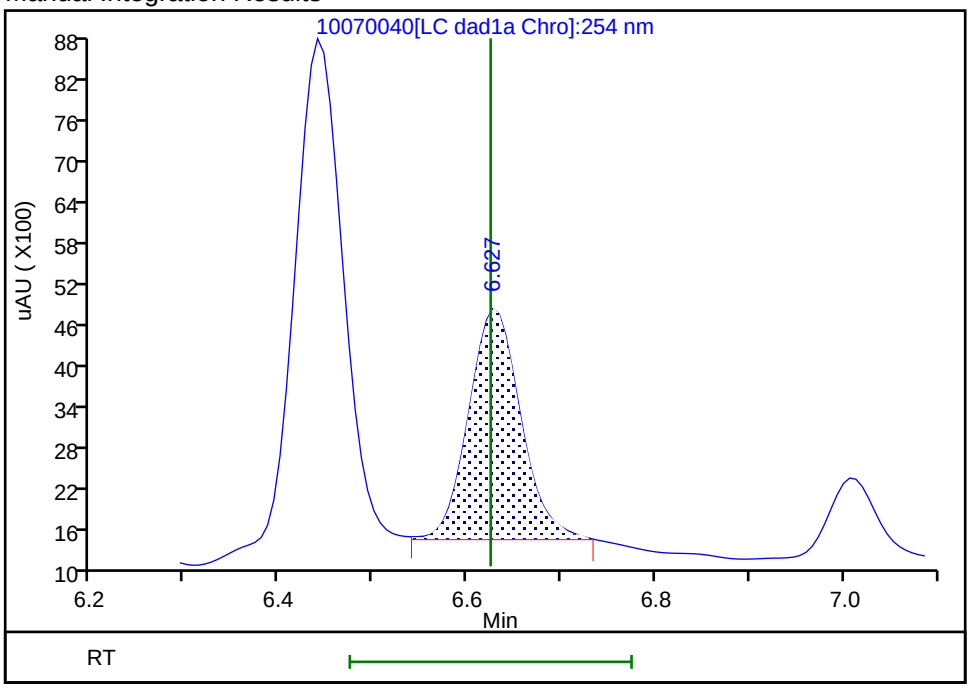
Processing Integration Results

RT: 6.63
Area: 17627
Amount: 0.122985
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 13126
Amount: 0.091581
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:33 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

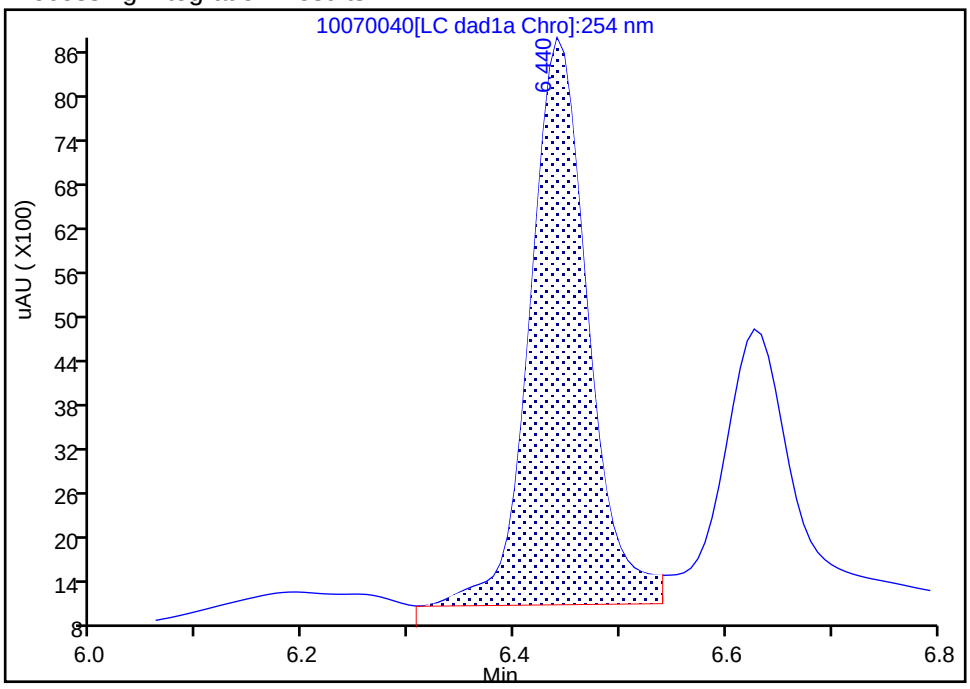
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070040.d
Injection Date: 08-Oct-2023 02:05:00 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-628078/4-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

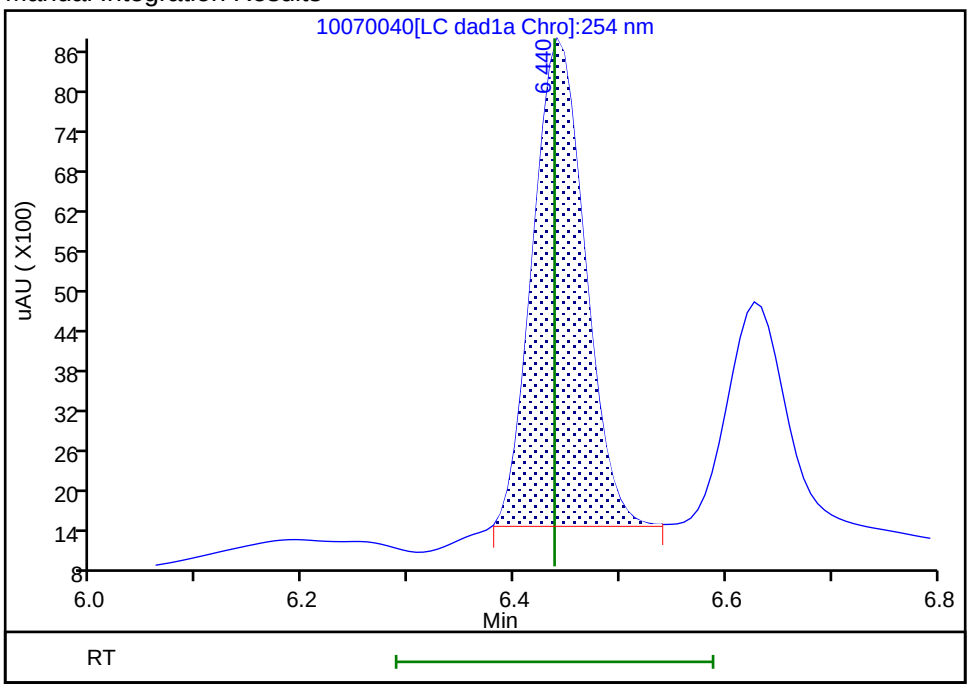
Processing Integration Results

RT: 6.44
Area: 29593
Amount: 0.131195
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 25454
Amount: 0.112845
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:31 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-628078/3-A

Matrix: Water | Lab File ID: 10070039.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 500(mL) | Date Analyzed: 10/08/2023 01:42

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.99		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.88		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.80		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.79		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.79		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.73		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.50		0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	1.62		0.40	0.30	0.13
99-08-1	3-Nitrotoluene	1.53		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.48	Q	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.40	Q	0.41	0.40	0.10
80251-29-2	DNX	1.87	M	0.50	0.25	0.097
2691-41-0	HMX	1.80	M	0.21	0.20	0.088
5755-27-1	MNX	2.19		0.50	0.29	0.093
98-95-3	Nitrobenzene	1.67		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.9		2.1	2.0	0.92
78-11-5	PETN	20.6		1.1	1.0	0.45
121-82-4	RDX	1.82		0.21	0.20	0.052
479-45-8	Tetryl	1.86		0.11	0.10	0.032
13980-04-6	TNX	1.65	M	0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070039.D
Lims ID: LCSD 280-628078/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 08-Oct-2023 01:42:02 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-628078/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.441	6.450	-0.009	33165	0.2002	0.1652	M
4 HMX	1	6.567	6.570	-0.003	17000	0.2000	0.1804	M
6 DNX	1	6.767	6.776	-0.009	26973	0.2008	0.1867	M
7 MNX	1	7.201	7.196	0.005	30364	0.2342	0.2189	
8 RDX	1	7.581	7.576	0.005	20128	0.2000	0.1822	
9 2,4,6-Trinitrophenol	1	7.947	7.943	0.004	17101	0.2000	0.2196	
$ 10 1,2-Dinitrobenzene	1	8.527	8.516	0.011	21521	0.2000	0.1737	
11 1,3,5-Trinitrobenzene	1	8.654	8.643	0.011	43026	0.2000	0.1991	
12 1,3-Dinitrobenzene	1	9.260	9.250	0.010	55047	0.2000	0.1877	
13 Nitrobenzene	1	9.634	9.616	0.018	32185	0.2000	0.1670	
14 3,5-Dinitroaniline	1	9.847	9.830	0.017	36263	0.2000	0.1616	
15 Tetryl	1	9.980	9.956	0.024	31049	0.2000	0.1856	
16 Nitroglycerin	2	10.427	10.410	0.017	128449	2.00	1.99	
17 2,4,6-Trinitrotoluene	1	10.860	10.843	0.017	36803	0.2000	0.1796	
18 4-Amino-2,6-dinitrotoluene	1	11.034	11.010	0.024	22116	0.2000	0.1479	
19 2-Amino-4,6-dinitrotoluene	1	11.287	11.256	0.031	33507	0.2000	0.1730	
20 2,6-Dinitrotoluene	1	11.447	11.423	0.024	25467	0.2000	0.1785	
21 2,4-Dinitrotoluene	1	11.614	11.590	0.024	52804	0.2000	0.1786	
22 o-Nitrotoluene	1	12.420	12.390	0.030	18929	0.2000	0.1501	
23 p-Nitrotoluene	1	12.827	12.796	0.031	15467	0.2000	0.1405	
24 m-Nitrotoluene	1	13.387	13.356	0.031	21294	0.2000	0.1531	
25 PETN	2	14.514	14.470	0.044	148204	2.00	2.06	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

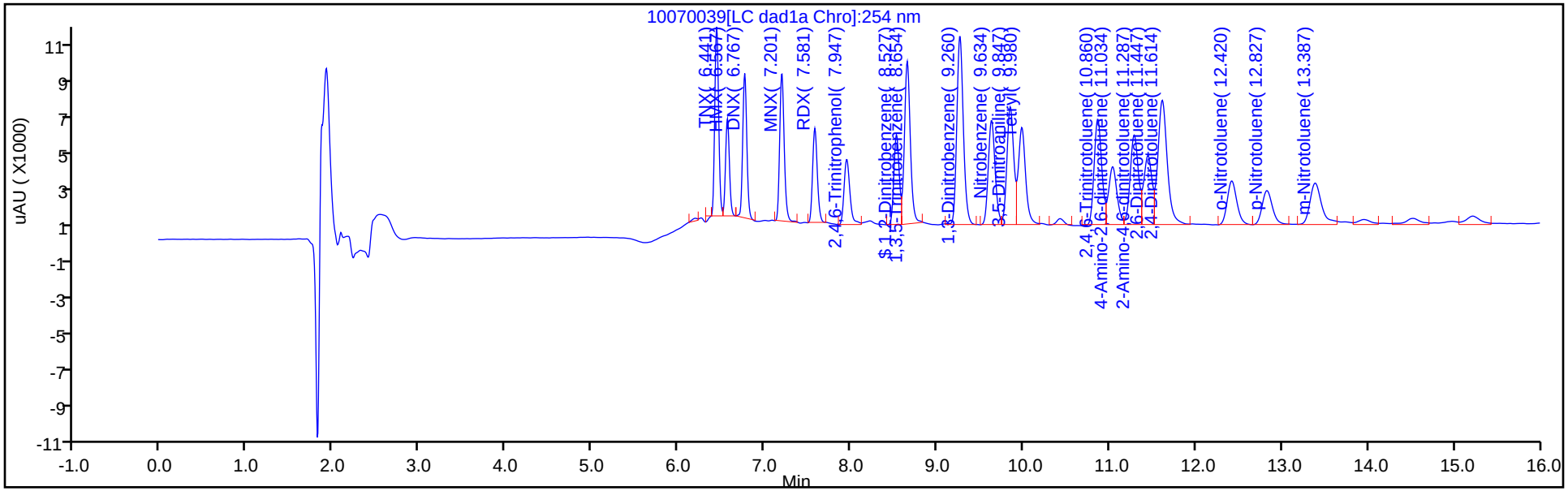
Report Date: 09-Oct-2023 11:17:09 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

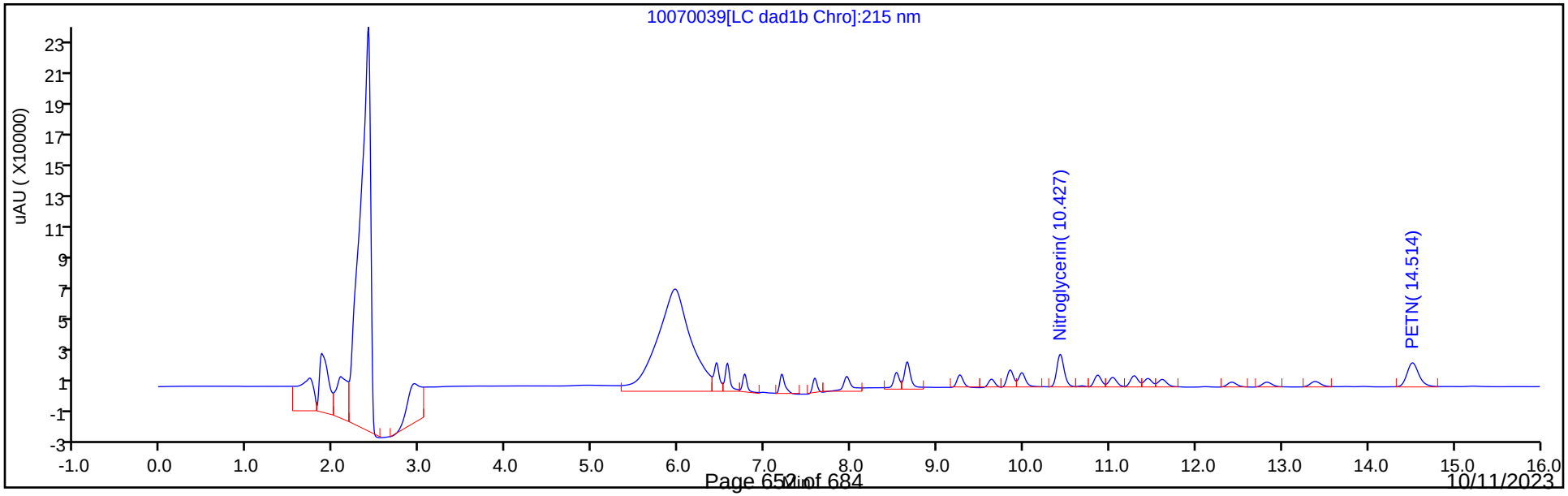
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070039.d

Injection Date:	08-Oct-2023 01:42:02	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-628078/3-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



10/11/2023
10:32 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070039.D				
Lims ID:	LCSD 280-628078/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	08-Oct-2023 01:42:02	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-628078/3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:06	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1737	86.84

Manual Integration/User Assign Peak Report

Eurofins Denver

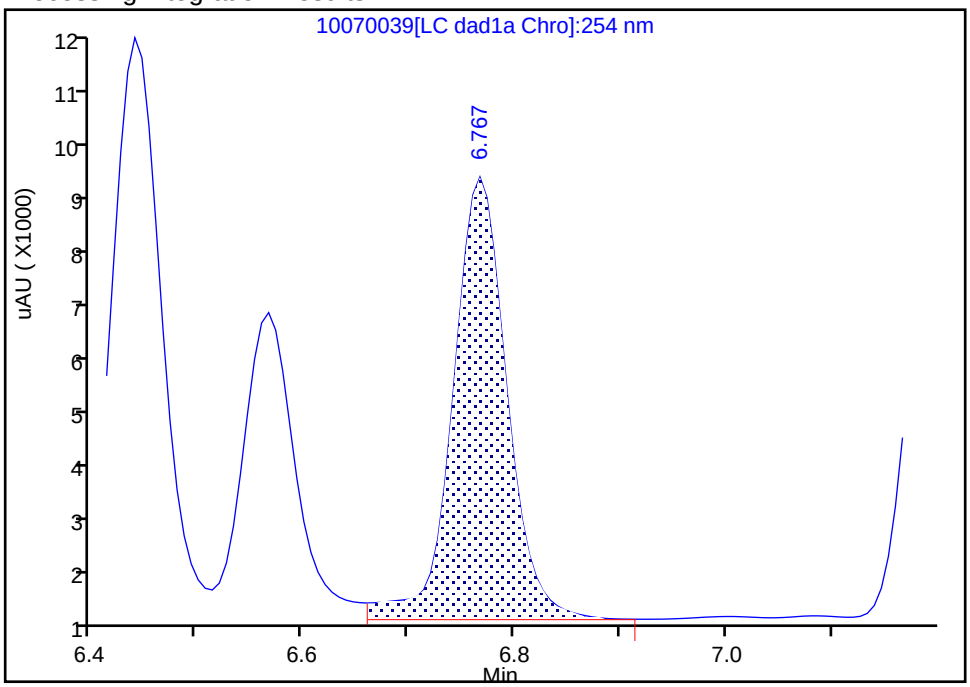
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Injection Date:	08-Oct-2023 01:42:02	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-628078/3-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

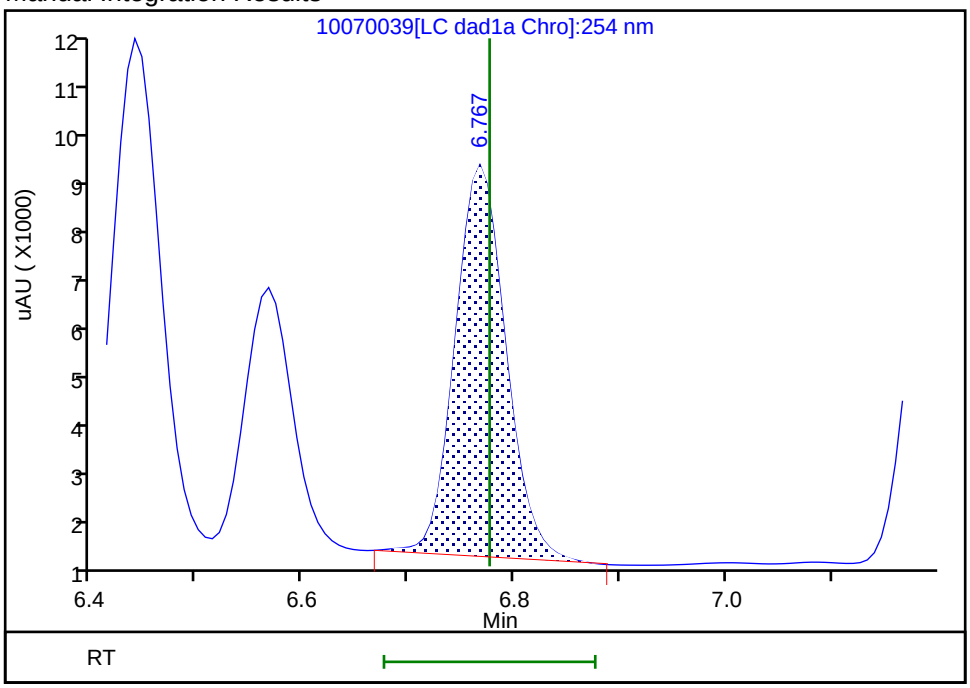
Processing Integration Results

RT: 6.77
Area: 29436
Amount: 0.203720
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 26973
Amount: 0.186674
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

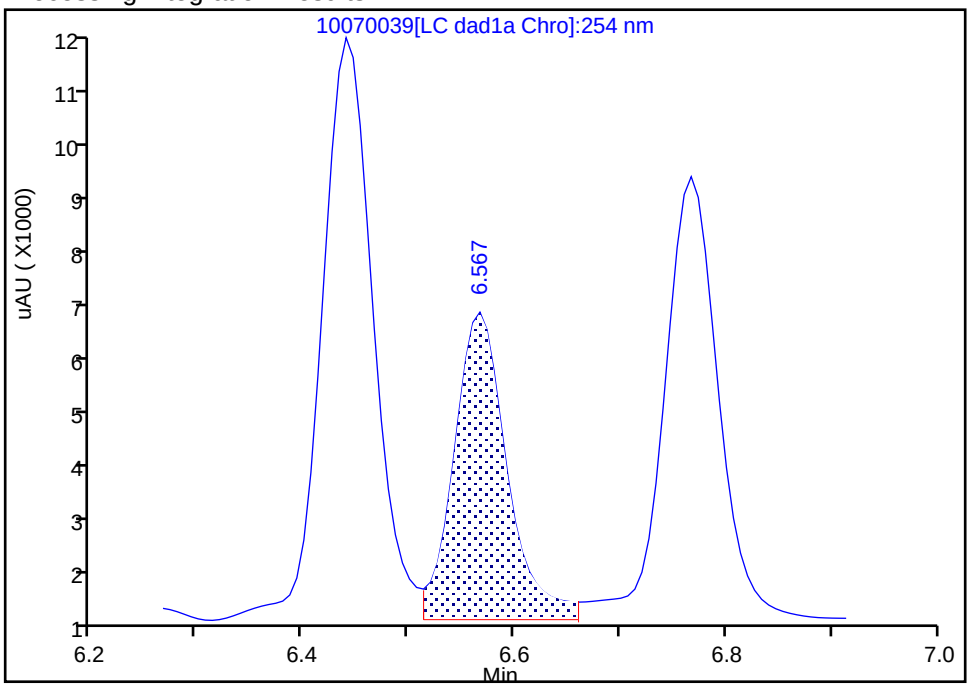
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Injection Date:	08-Oct-2023 01:42:02	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-628078/3-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

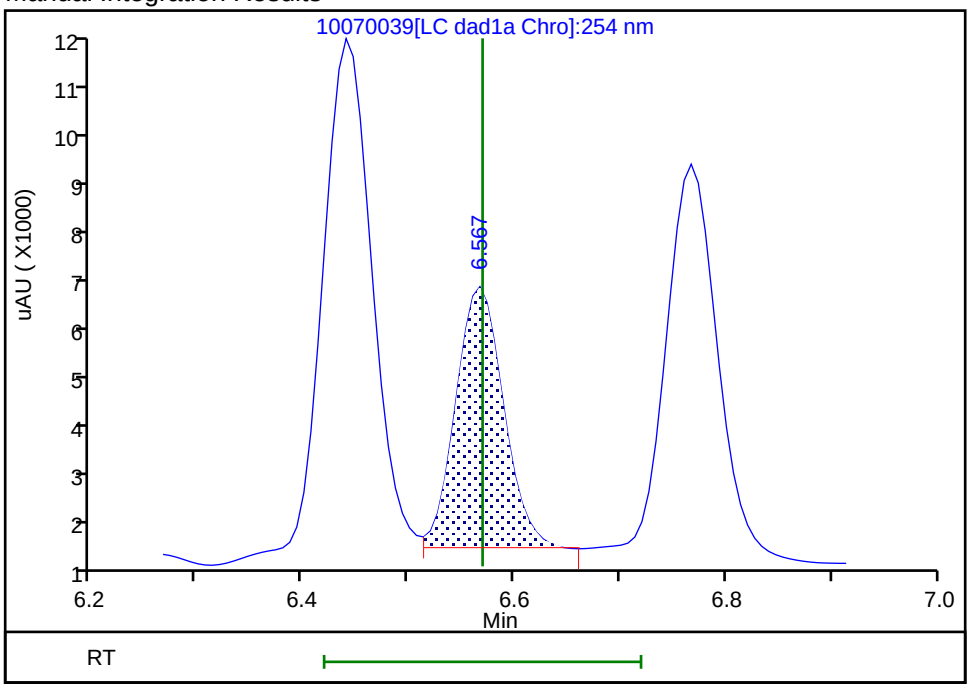
Processing Integration Results

RT: 6.57
Area: 19913
Amount: 0.211267
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 17000
Amount: 0.180361
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:09 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

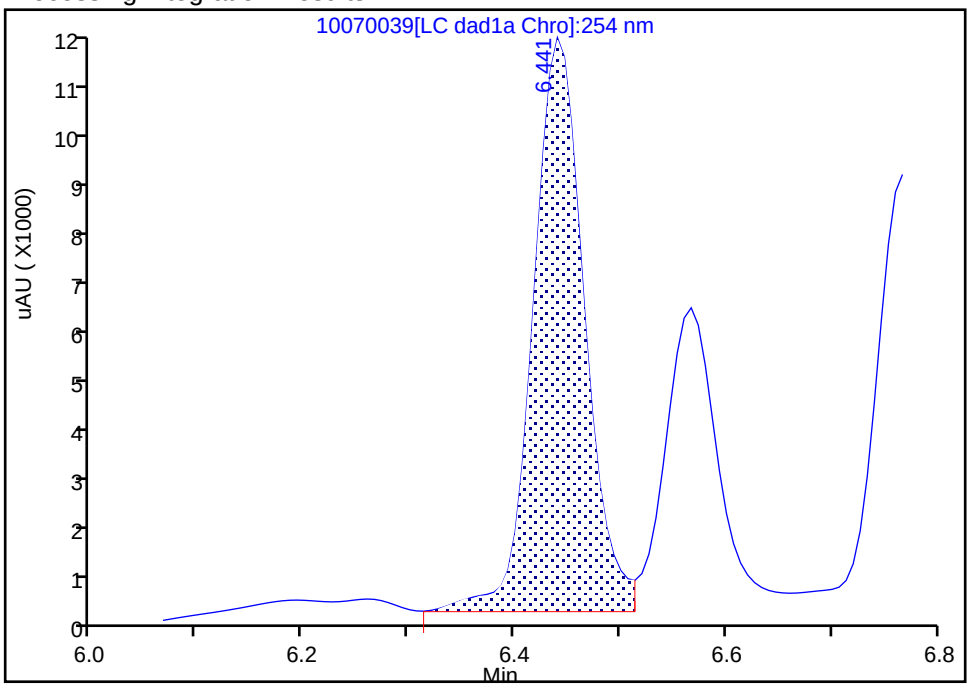
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Injection Date:	08-Oct-2023 01:42:02	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-628078/3-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

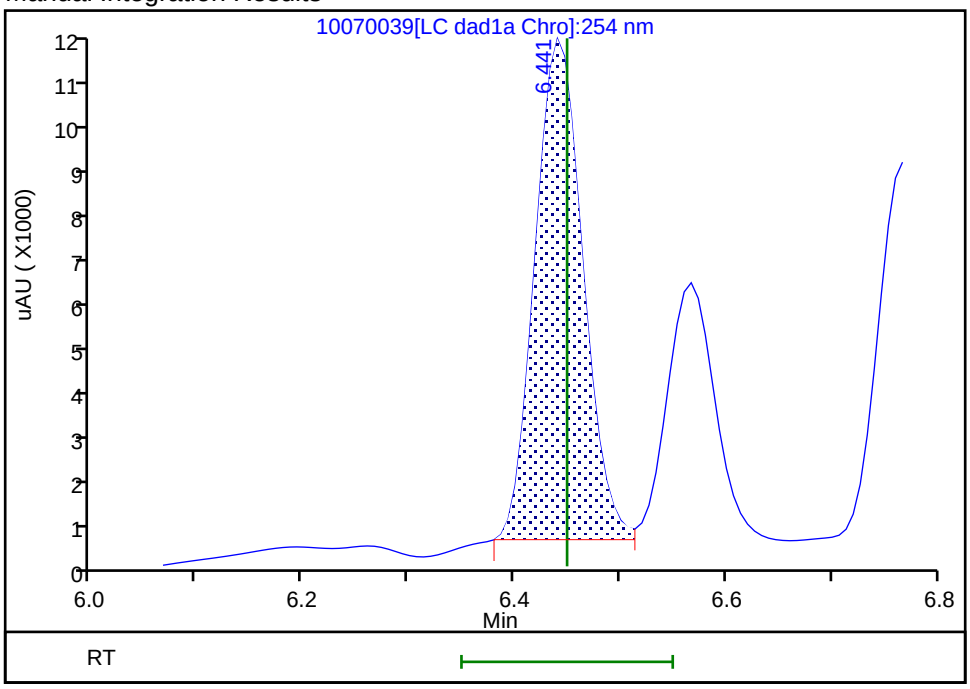
Processing Integration Results

RT: 6.44
Area: 36587
Amount: 0.182242
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 33165
Amount: 0.165197
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:06:12 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-181950-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-628078/5-A

Matrix: Water | Lab File ID: 10070041.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/02/2023 15:27

Sample wt/vol: 500(mL) | Date Analyzed: 10/08/2023 02:27

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 628897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	0.914	J M Q	1.0	0.90	0.43
59229-75-3	2,6-diamino-4-nitrotoluene	1.22	M Q	1.0	0.90	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\10070041.D
Lims ID: LCSD 280-628078/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 08-Oct-2023 02:27:57 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-628078/5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Oct-2023 11:17:06 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1602

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:27

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1	6.438	6.438	0.000	27626	0.2000	0.1225	M
	5 2,4-diamino-6-nitrotoluene	1	6.624	6.625	-0.001	13097	0.2000	0.0914	M
$	10 1,2-Dinitrobenzene	1	8.511	8.516	-0.005	24858	0.2000	0.2006	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

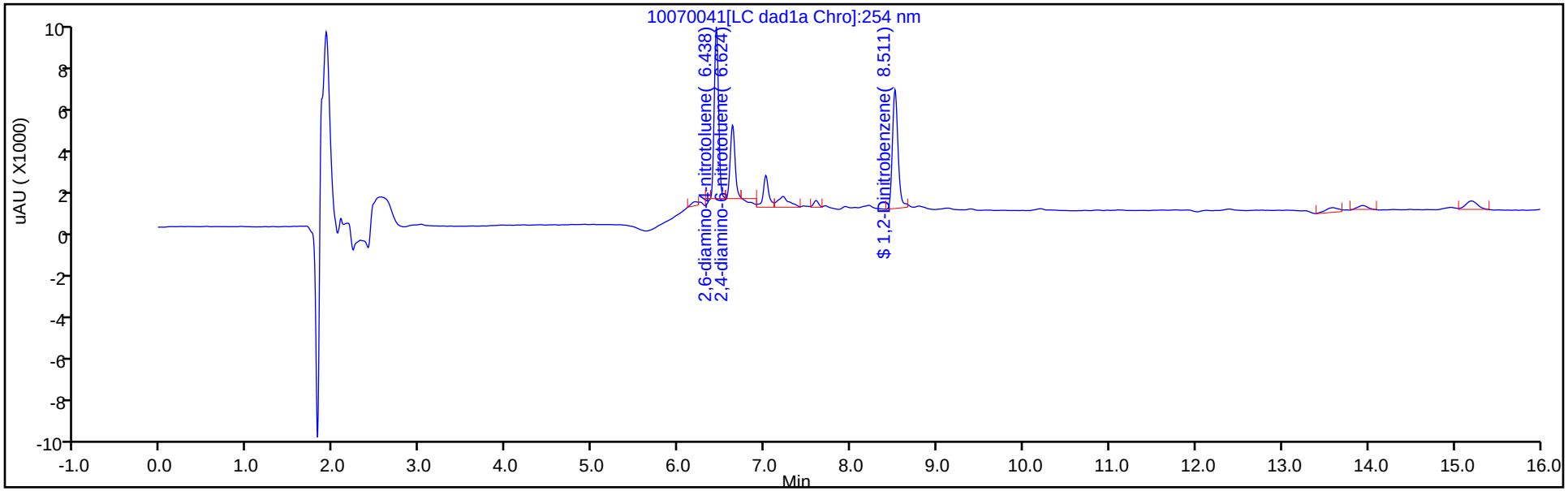
Report Date: 09-Oct-2023 11:17:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

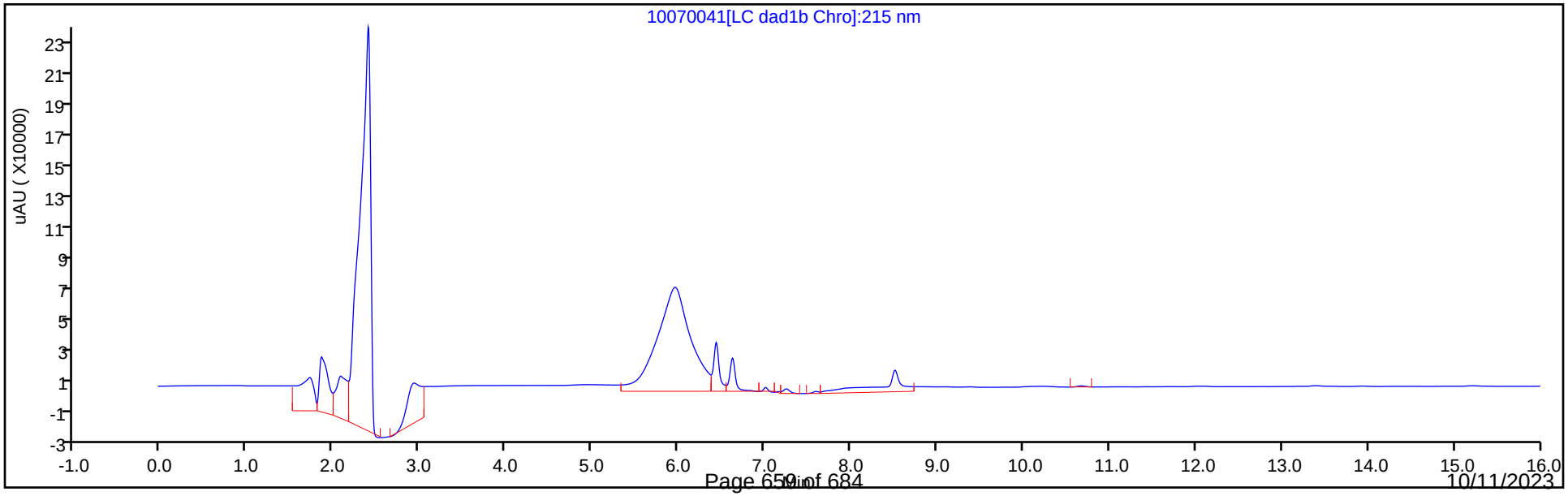
Data File: \\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070041.d

Injection Date:	08-Oct-2023 02:27:57	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-628078/5-A			Worklist Smp#:	41
Client ID:					
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\20231007-126276.b\10070041.D				
Lims ID:	LCSD 280-628078/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	08-Oct-2023 02:27:57	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-628078/5-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231007-126276.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	09-Oct-2023 11:17:06	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1602				

First Level Reviewer: K8YG Date: 09-Oct-2023 08:56:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2006	100.31

Manual Integration/User Assign Peak Report

Eurofins Denver

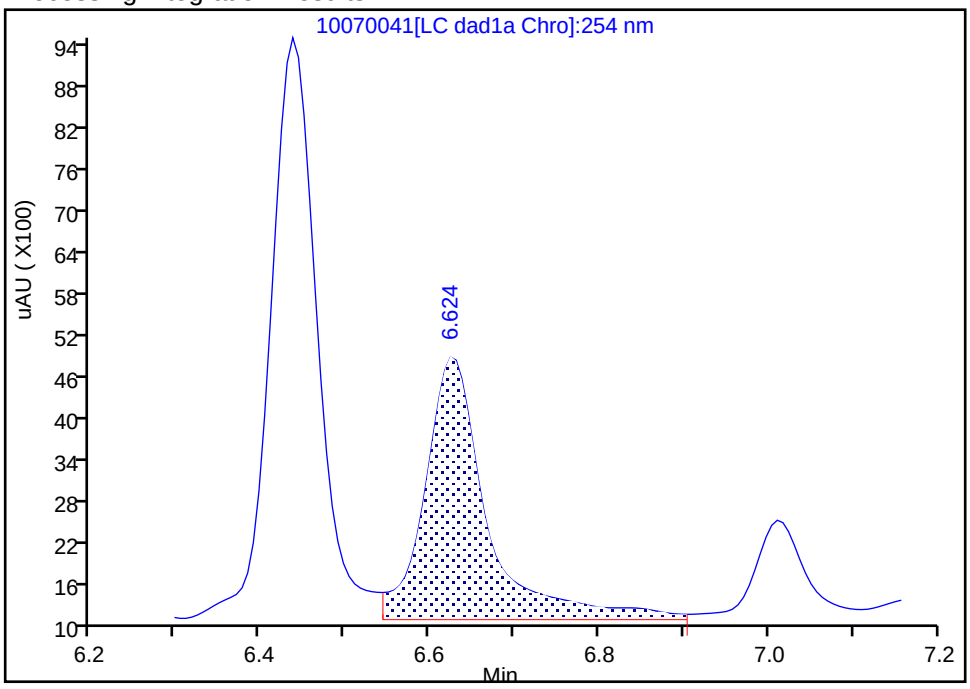
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070041.d				
Injection Date:	08-Oct-2023 02:27:57	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-628078/5-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

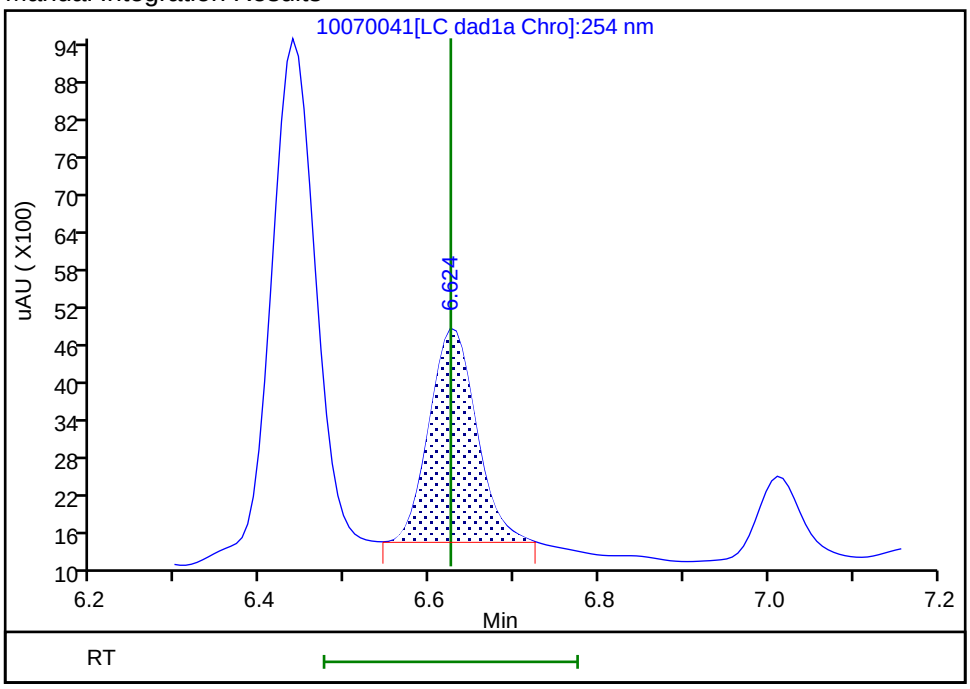
Processing Integration Results

RT: 6.62
Area: 19414
Amount: 0.135453
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 13097
Amount: 0.091379
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:07:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

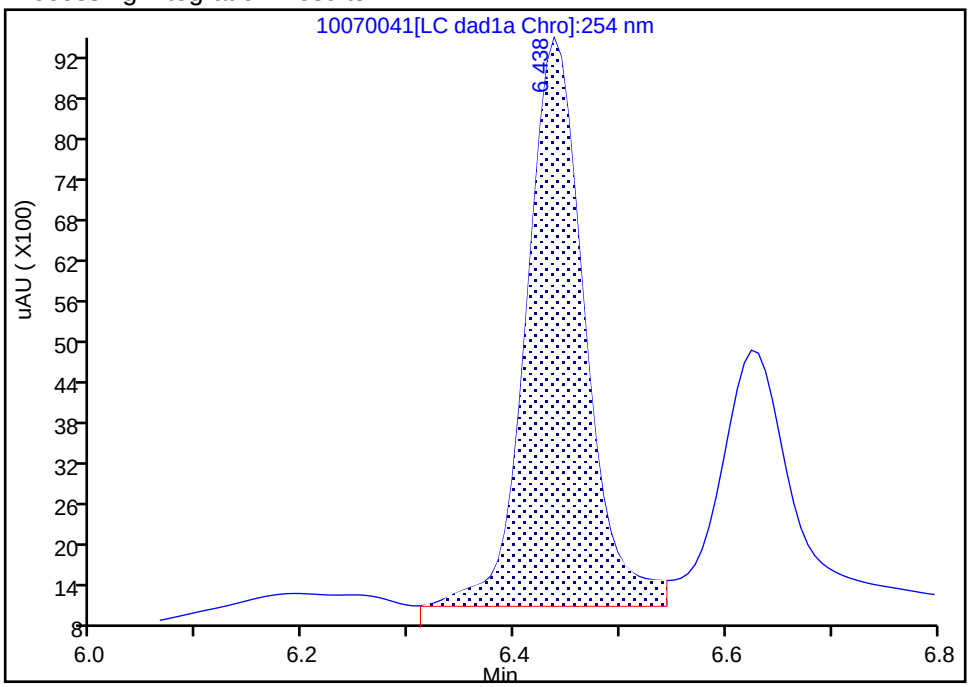
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231007-126276.b\10070041.d				
Injection Date:	08-Oct-2023 02:27:57	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-628078/5-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

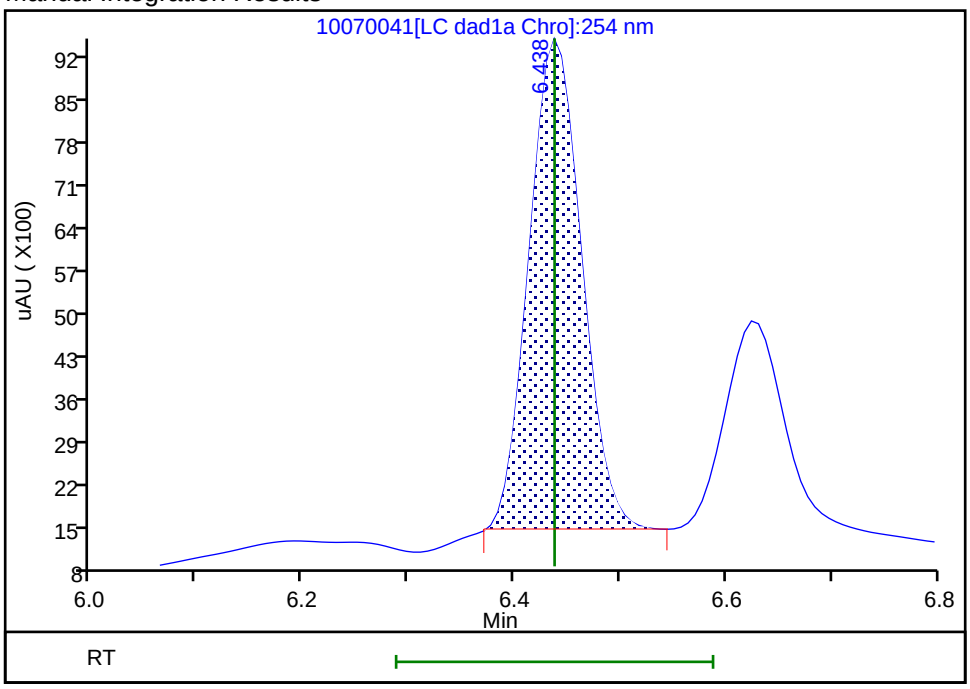
Processing Integration Results

RT: 6.44
Area: 32129
Amount: 0.142438
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 27626
Amount: 0.122475
Amount Units: ug/mL



Reviewer: K8YG, 09-Oct-2023 11:07:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 06/23/2023 17:53

Analysis Batch Number: 617295 End Date: 06/24/2023 00:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-617295/11		06/23/2023 17:53	1	06230011.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/12		06/23/2023 18:16	1	06230012.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/13		06/23/2023 18:39	1	06230013.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/14		06/23/2023 19:02	1	06230014.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/15		06/23/2023 19:25	1	06230015.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/16		06/23/2023 19:48	1	06230016.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/17		06/23/2023 20:11	1	06230017.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/18		06/23/2023 20:34	1	06230018.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/19		06/23/2023 20:57	1	06230019.D	UltraCarb5uODS 4.6(mm)
ICV 280-617295/20		06/23/2023 21:20	1	06230020.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/21		06/23/2023 21:43	1	06230021.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/22		06/23/2023 22:06	1	06230022.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/23		06/23/2023 22:29	1	06230023.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/24		06/23/2023 22:52	1	06230024.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/25		06/23/2023 23:14	1	06230025.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/26		06/23/2023 23:37	1	06230026.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/27		06/24/2023 00:00	1	06230027.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/28		06/24/2023 00:23	1	06230028.D	UltraCarb5uODS 4.6(mm)
ICV 280-617295/29		06/24/2023 00:46	1	06230029.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 09/20/2023 20:01

Analysis Batch Number: 626878 End Date: 09/21/2023 06:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-626878/10		09/20/2023 20:01	1	09200010.D	Luna-phenylhex 4.6(mm)
IC 280-626878/11		09/20/2023 20:36	1	09200011.D	Luna-phenylhex 4.6(mm)
IC 280-626878/12		09/20/2023 21:11	1	09200012.D	Luna-phenylhex 4.6(mm)
IC 280-626878/13		09/20/2023 21:45	1	09200013.D	Luna-phenylhex 4.6(mm)
IC 280-626878/14		09/20/2023 22:20	1	09200014.D	Luna-phenylhex 4.6(mm)
IC 280-626878/15		09/20/2023 22:55	1	09200015.D	Luna-phenylhex 4.6(mm)
IC 280-626878/16		09/20/2023 23:30	1	09200016.D	Luna-phenylhex 4.6(mm)
IC 280-626878/17		09/21/2023 00:05	1	09200017.D	Luna-phenylhex 4.6(mm)
IC 280-626878/18		09/21/2023 00:40	1	09200018.D	Luna-phenylhex 4.6(mm)
ICV 280-626878/19		09/21/2023 01:15	1	09200019.D	Luna-phenylhex 4.6(mm)
IC 280-626878/20		09/21/2023 01:50	1	09200020.D	Luna-phenylhex 4.6(mm)
IC 280-626878/21		09/21/2023 02:25	1	09200021.D	Luna-phenylhex 4.6(mm)
IC 280-626878/22		09/21/2023 03:00	1	09200022.D	Luna-phenylhex 4.6(mm)
IC 280-626878/23		09/21/2023 03:35	1	09200023.D	Luna-phenylhex 4.6(mm)
IC 280-626878/24		09/21/2023 04:10	1	09200024.D	Luna-phenylhex 4.6(mm)
IC 280-626878/25		09/21/2023 04:45	1	09200025.D	Luna-phenylhex 4.6(mm)
IC 280-626878/26		09/21/2023 05:20	1	09200026.D	Luna-phenylhex 4.6(mm)
IC 280-626878/27		09/21/2023 05:55	1	09200027.D	Luna-phenylhex 4.6(mm)
ICV 280-626878/28		09/21/2023 06:30	1	09200028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 10/07/2023 14:13

Analysis Batch Number: 628897 End Date: 10/08/2023 11:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-628897/8		10/07/2023 14:13	1		UltraCarb5uODS 4.6(mm)
CCV 280-628897/9		10/07/2023 14:36	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 14:59	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 15:22	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 15:45	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 16:08	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 16:31	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 16:53	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 17:16	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 17:39	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 18:02	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 18:25	1		UltraCarb5uODS 4.6(mm)
CCV 280-628897/21		10/07/2023 18:48	1		UltraCarb5uODS 4.6(mm)
CCV 280-628897/22		10/07/2023 19:11	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 19:34	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 19:57	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 20:20	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 20:43	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 21:06	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 21:29	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 21:52	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 22:15	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 22:38	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/07/2023 23:01	1		UltraCarb5uODS 4.6(mm)
CCV 280-628897/33		10/07/2023 23:24	1	10070033.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/34		10/07/2023 23:47	1	10070034.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 00:10	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 00:33	1		UltraCarb5uODS 4.6(mm)
MB 280-628078/1-A		10/08/2023 00:56	1	10070037.D	UltraCarb5uODS 4.6(mm)
LCS 280-628078/2-A		10/08/2023 01:19	1	10070038.D	UltraCarb5uODS 4.6(mm)
LCSD 280-628078/3-A		10/08/2023 01:42	1	10070039.D	UltraCarb5uODS 4.6(mm)
LCS 280-628078/4-A		10/08/2023 02:05	1	10070040.D	UltraCarb5uODS 4.6(mm)
LCSD 280-628078/5-A		10/08/2023 02:27	1	10070041.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 02:50	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 03:13	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 03:36	1		UltraCarb5uODS 4.6(mm)
CCV 280-628897/45		10/08/2023 03:59	1	10070045.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/46		10/08/2023 04:22	1	10070046.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 04:45	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 05:08	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 05:31	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 05:54	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 06:17	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 06:40	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/08/2023 07:03	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 10/07/2023 14:13

Analysis Batch Number: 628897 End Date: 10/08/2023 11:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
280-181950-1	FWGmw-010-230901-GW	10/08/2023 07:26	1	10070054.D	UltraCarb5uODS 4.6(mm)
280-181950-2	LL1mw-064-230901-GW	10/08/2023 07:49	1	10070055.D	UltraCarb5uODS 4.6(mm)
280-181950-3	FWGmw-011-230901-GW	10/08/2023 08:12	1	10070056.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/57		10/08/2023 08:35	1	10070057.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/58		10/08/2023 08:58	1	10070058.D	UltraCarb5uODS 4.6(mm)
280-181950-4	LL1mw-089-230901-GW	10/08/2023 09:21	1	10070059.D	UltraCarb5uODS 4.6(mm)
280-181950-5	LL1mw-089-230902-GW	10/08/2023 09:44	1	10070060.D	UltraCarb5uODS 4.6(mm)
280-181950-6	FWGmw-012-230901-GW	10/08/2023 10:06	1	10070061.D	UltraCarb5uODS 4.6(mm)
280-181950-7	FWGmw-016-230901-GW	10/08/2023 10:29	1	10070062.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/63		10/08/2023 10:52	1	10070063.D	UltraCarb5uODS 4.6(mm)
CCV 280-628897/64		10/08/2023 11:15	1	10070064.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 10/10/2023 01:52

Analysis Batch Number: 629022 End Date: 10/10/2023 10:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-629022/26		10/10/2023 01:52	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 02:27	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 03:02	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 03:37	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 04:12	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 04:47	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 05:22	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 05:57	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 06:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 07:07	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 07:42	1		Luna-phenylhex 4.6(mm)
CCV 280-629022/37		10/10/2023 08:17	1	10090037.D	Luna-phenylhex 4.6(mm)
ZZZZZ		10/10/2023 08:52	1		Luna-phenylhex 4.6(mm)
280-181950-2	LL1mw-064-230901-GW	10/10/2023 09:27	1	10090039.D	Luna-phenylhex 4.6(mm)
280-181950-5	LL1mw-089-230902-GW	10/10/2023 10:02	1	10090040.D	Luna-phenylhex 4.6(mm)
CCV 280-629022/41		10/10/2023 10:37	1	10090041.D	Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00013	8330 LCS 00127	8330_ADDs 00037	8330_OP_DMT 00021	8330DiaminLCS 00058
IC 280-617295/11		8330B		1 mL	125 uL				
IC 280-617295/12		8330B		1 mL	50 uL				
IC 280-617295/13		8330B		1 mL	35 uL				
IC 280-617295/14		8330B		1 mL	20 uL				
IC 280-617295/15		8330B		1 mL	12.5 uL				
IC 280-617295/16		8330B		1 mL	5 uL				
IC 280-617295/17		8330B		1 mL	2.5 uL				
IC 280-617295/18		8330B		1 mL	1 uL				
IC 280-617295/19		8330B		1 mL	0.5 uL				
ICV 280-617295/20		8330B		1 mL		50 uL		50 uL	
IC 280-617295/21		8330B		1 mL			125 uL		
IC 280-617295/22		8330B		1 mL			50 uL		
IC 280-617295/23		8330B		1 mL			35 uL		
IC 280-617295/24		8330B		1 mL			20 uL		
IC 280-617295/25		8330B		1 mL			12.5 uL		
IC 280-617295/26		8330B		1 mL			5 uL		
IC 280-617295/27		8330B		1 mL			2 uL		
IC 280-617295/28		8330B		1 mL			1 uL		
ICV 280-617295/29		8330B		1 mL					50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00077	8330Surrogate 00146				

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.: 280-181950-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00077	8330Surrogate 00146				
IC 280-617295/11		8330B		250 uL					
IC 280-617295/12		8330B		100 uL					
IC 280-617295/13		8330B		70 uL					
IC 280-617295/14		8330B		40 uL					
IC 280-617295/15		8330B		25 uL					
IC 280-617295/16		8330B		10 uL					
IC 280-617295/17		8330B		5 uL					
IC 280-617295/18		8330B		2 uL					
IC 280-617295/19		8330B		1 uL					
ICV 280-617295/20		8330B			50 uL				
IC 280-617295/21		8330B							
IC 280-617295/22		8330B							
IC 280-617295/23		8330B							
IC 280-617295/24		8330B							
IC 280-617295/25		8330B							
IC 280-617295/26		8330B							
IC 280-617295/27		8330B							
IC 280-617295/28		8330B							
ICV 280-617295/29		8330B							

Batch Notes	
Methanol ID	223237

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.: 280-181950-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

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.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00015	8330 LCS 00130	8330_ADDs 00037	8330_OP_DMT 00022	8330DiaminLCS 00060
IC 280-626878/10		8330B		1 mL	125 uL				
IC 280-626878/11		8330B		1 mL	50 uL				
IC 280-626878/12		8330B		1 mL	35 uL				
IC 280-626878/13		8330B		1 mL	20 uL				
IC 280-626878/14		8330B		1 mL	12.5 uL				
IC 280-626878/15		8330B		1 mL	5 uL				
IC 280-626878/16		8330B		1 mL	2.5 uL				
IC 280-626878/17		8330B		1 mL	1 uL				
IC 280-626878/18		8330B		1 mL	0.5 uL				
ICV 280-626878/19		8330B		1 mL		50 uL		50 uL	
IC 280-626878/20		8330B		1 mL			125 uL		
IC 280-626878/21		8330B		1 mL			50 uL		
IC 280-626878/22		8330B		1 mL			35 uL		
IC 280-626878/23		8330B		1 mL			20 uL		
IC 280-626878/24		8330B		1 mL			12.5 uL		
IC 280-626878/25		8330B		1 mL			5 uL		
IC 280-626878/26		8330B		1 mL			2 uL		
IC 280-626878/27		8330B		1 mL			1 uL		
ICV 280-626878/28		8330B		1 mL					25 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00078	8330Surrogate 00150				

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.: 280-181950-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00078	8330Surrogate 00150				
IC 280-626878/10		8330B		250 uL					
IC 280-626878/11		8330B		100 uL					
IC 280-626878/12		8330B		70 uL					
IC 280-626878/13		8330B		40 uL					
IC 280-626878/14		8330B		25 uL					
IC 280-626878/15		8330B		10 uL					
IC 280-626878/16		8330B		5 uL					
IC 280-626878/17		8330B		2 uL					
IC 280-626878/18		8330B		1 uL					
ICV 280-626878/19		8330B			50 uL				
IC 280-626878/20		8330B							
IC 280-626878/21		8330B							
IC 280-626878/22		8330B							
IC 280-626878/23		8330B							
IC 280-626878/24		8330B							
IC 280-626878/25		8330B							
IC 280-626878/26		8330B							
IC 280-626878/27		8330B							
ICV 280-626878/28		8330B							

Batch Notes	
Methanol ID	230922

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.: 280-181950-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

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.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Batch Number: 628078 Batch Start Date: 10/02/23 15:27 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 10/02/23 19:16

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00131	8330_OP_DMT 00022
MB 280-628078/1		3535, 8330B				500 mL	5 mL		
LCS 280-628078/2		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-628078/3		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCS 280-628078/4		3535, 8330B				500 mL	5 mL		
LCSD 280-628078/5		3535, 8330B				500 mL	5 mL		
280-181950-A-1	FWGmw-010-230901-GW	3535, 8330B	T	768.4 g	283.8 g	484.6 mL	5 mL		
280-181950-A-2	LL1mw-064-230901-GW	3535, 8330B	T	773.2 g	286.2 g	487 mL	5 mL		
280-181950-A-3	FWGmw-011-230901-GW	3535, 8330B	T	760.1 g	283.8 g	476.3 mL	5 mL		
280-181950-B-4	LL1mw-089-230901-GW	3535, 8330B	T	776.4 g	285.5 g	490.9 mL	5 mL		
280-181950-B-5	LL1mw-089-230902-GW	3535, 8330B	T	778.1 g	285.8 g	492.3 mL	5 mL		
280-181950-B-6	FWGmw-012-230901-GW	3535, 8330B	T	787.4 g	284.7 g	502.7 mL	5 mL		
280-181950-B-7	FWGmw-016-230901-GW	3535, 8330B	T	759.2 g	284.4 g	474.8 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00060	8330Surrogate 00150	AnalysisComment			
MB 280-628078/1		3535, 8330B			0.1 mL				
LCS 280-628078/2		3535, 8330B			0.1 mL	DMT			
LCSD 280-628078/3		3535, 8330B			0.1 mL	DMT			
LCS 280-628078/4		3535, 8330B		0.05 mL	0.1 mL	Diamino			
LCSD 280-628078/5		3535, 8330B		0.05 mL	0.1 mL	Diamino			
280-181950-A-1	FWGmw-010-230901-GW	3535, 8330B	T		0.1 mL				
280-181950-A-2	LL1mw-064-230901-GW	3535, 8330B	T		0.1 mL				
280-181950-A-3	FWGmw-011-230901-GW	3535, 8330B	T		0.1 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-181950-1

SDG No.:

Batch Number: 628078 Batch Start Date: 10/02/23 15:27 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 10/02/23 19:16

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00060	8330Surrogate 00150	AnalysisComment			
280-181950-B-4	LL1mw-089-230901-GW	3535, 8330B	T		0.1 mL				
280-181950-B-5	LL1mw-089-230902-GW	3535, 8330B	T		0.1 mL				
280-181950-B-6	FWGmw-012-230901-GW	3535, 8330B	T		0.1 mL				
280-181950-B-7	FWGmw-016-230901-GW	3535, 8330B	T		0.1 mL				

Batch Notes	
First Start time	10/02/2023 15:50
First End time	10/02/2023 18:40
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005433023A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: B, C
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00088
Rinse Solvent Name	Acetonotrile
Rinse Solvent Lot	Acetonotrile_00079
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00001
Analyst ID - Spike Analyst	EH
Analyst ID - Spike Witness Analyst	Reviewer: AA
Batch Comment	DV-OP-0017

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.

Shipping and Receiving Documents

leidos

Chain of Custody Record

COC No.: RVAAP-351-TA

Page 1 of 6

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) Melissa Rego (Printed Name) Melissa Rego

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-010-230901-GW	—	—	9/25/23	1106	W	2		2	

MR 9/25/23

280-181950 Chain of Custody

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2	Shipment Method: Courier
Signature	9/25/23	Signature	9/26/23	A. Cool, 4C	FedEx
Charles Spurr	Time	Jarod Swegle	Time	B. HCl, pH<2, Cool, 4C	817461094850
Printed Name	1630	Printed Name	09:40	C. HNO3, pH<2, Cool, 4C	
Leidos		EET DEN		D. NaOH, pH>12, Cool 4C	
Company		Company		1. SW 8260B Notes:	
Relinquished by	Date	Received by	Date	2. SW 8270D	
Signature		Signature		3. SW 8270D SIM	
Printed Name	Time	Printed Name	Time	4. SW 8082A	
Company		Company		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	

Temperature Blank

Lab:

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

0.1 IR MOMO CF 0.3

Chain of Custody Record

leidos

Page 2 of 6

COC No.: RVAAP-352-TA

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Joe Krivetz

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-064-230901-GW	—	—	9/25/23	18.16	W	2		2	

JK 9/25/23

Relinquished by	Date	Received by	Date	Time
Signature [signature]	9/25/23	Signature [signature]	9/26/23	
Printed Name Charles Spurr	Time 1630	Printed Name Jarod Swogle	Time 09:40	
Company Leidos		Company GET OEN		
Relinquished by	Date	Received by	Date	
Signature		Signature		
Printed Name	Time	Printed Name	Time	
Company		Company		

Notes: Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

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

Shipment Method: Courier

FedEx

8174 6109 4850

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White: Laboratory Pink Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

leidos

Chain of Custody Record

Page 3 of 6

COC No.: RVAAP- 353-TA

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Chris McFadd

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-011-230901-GW	-	-	9/25/23	1300	W	2		2	

9/25/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers:	2
Signature	9/26/23	Signature	9/26/23	A. Cool, 4C	
Charles Spurr	Time	Jarod Swegh	Time	B. HCl, pH<2, Cool, 4C	
Printed Name	1630	Printed Name	09.40	C. HNO3, pH<2, Cool, 4C	
Leidos		EET OEN		D. NaOH, pH>12, Cool 4C	
Company		Company		1. SW 8260B Notes:	
Relinquished by	Date	Received by	Date	2. SW 8270D	
Signature		Signature		3. SW 8270D SIM	
Printed Name	Time	Printed Name	Time	4. SW 8082A	
Company		Company		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	

Shipment Method: Courier

FedEx

8174 6109 4850

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

leidos

Chain of Custody Record

Page 4 of 6

COC No.: RVAAP- 354-TA

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Joe Kravetz

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	Requested Parameters: Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-089-230901-GW	-	-	9/25/23	13:26	W	2		2	
	LL1mw-089-230902-GW	-	-	9/25/23	13:26	W	2		2	

JK 9/25/23

Relinquished by	Date	Received by	Date
[signature]	9/25/23	[signature] Jarod Swegle	9/26/23
Signature		Signature	
Charles Spur	Time 1630	Jarod Swegle	Time 09:10
Printed Name		Printed Name	
Leidos		EGT OSN	
Company		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 4

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

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

Notes:

Shipment Method: Courier

FedEx

8174 6109 4850

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

10/11/2023
10:32 AM

leidos

Chain of Custody Record

Page 5 of 6

COC No.: RVAAP-355-TA

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name) Chris McFarland

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-012-230901-GW	-	-	9/25/23	1425	W	2		2	

9/25/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature	9/25/23	Signature	9/26/23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C
Charles Spurr	Time 1630	Jacod Swagle	Time 09:40	1. SW 8260B Notes: 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
Printed Name		Printed Name EET DEN		
Leidos				
Company		Company		
Relinquished by	Date	Received by	Date	
Signature		Signature		
Printed Name	Time	Printed Name	Time	
Company		Company		

Shipment Method: Courier

FedEx

8174 6109 4850

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos White Laboratory Pink Project Manager Yellow. Project QAO Goldenrod Field Project Manager

10/11/2023
10:32 AM

Chain of Custody Record

leidos

COC No.: RVAAP-356-TA

Page 6 of 6

Date: 9/25/23

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 Spring 2023
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Joe Kravetz

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	Requested Parameters: Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-016-230901-GW			9/25/23	14:58	W	2		2	

JK 9/25/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
[signature]	9/25/23	[signature]	9/26/23	A. Cool, 4C
Signature		Signature		B. HCl, pH<2, Cool, 4C
Charles Spurr	Time	Jarod Swegle	Time	C. HNO3, pH<2, Cool, 4C
Printed Name	1630	Printed Name	09:40	D. NaOH, pH>12, Cool 4C
Leidos		EET DEN		1. SW 8260B Notes:
Company		Company		2. SW 8270D
Relinquished by	Date	Received by	Date	3. SW 8270D SIM
				4. SW 8082A
Signature		Signature		5. SW 8081B
	Time		Time	6. SW 8330
Printed Name		Printed Name		7. SW 6010/6020/7470
Company		Company		8. SW 9012B
				9. SW 9034
				10. SW 9056/9056A
				11. SW 6860
				12. EPA 353.2
				13. SW 7196
				14. SM2320B

Shipment Method: Courier

FedEx

8174 6109 4850

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White: Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

10/11/2023
10:32 AM


ORIGIN ID:YNGA (216) 317-5721
CHARLES SPURR
LEIDOS
8866 COMMONS BLVD STE 201
TWINSBURG, OH 44087
UNITED STATES US
SHIP DATE: 25SEP23
ACTWGT: 62.15 LB
CAD: 6995178/SSFE2441
DIMS: 24x13x14 IN
BILL THIRD PARTY
Part # 156297-435 RRDB EXP 02/23
TO
TESTAMERICA DENVER LAB
4955 YARROW ST
ARVADA CO 80002
(303) 736-0100
INV:
PO:
REF:
DEPT:
FedEx
Express
TUE - 26 SEP 10:30
PRIORITY OVERNIGH
DSR AH
80002
CO-US DEN
TRK# 0215 8174 6109 4850
NX LAAA
280-181950 Waybill
eurofins | Environment Testing
TestAmerica
2046259

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-181950-1

Login Number: 181950
List Number: 1
Creator: Little, Matthew L

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	