

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Rita Schmon-Stasik
Leidos, Inc.
Picatinny Arsenal
356 Ninth Avenue
Suite 106
Dover NJ 07801

Generated 5/17/2024 4:54 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-190903-1

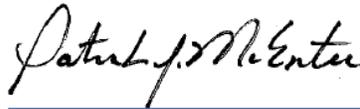
Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Generated
5/17/2024 4:54 AM

Authorized for release by
Patrick J McEntee, Client Service Manager
Patrick.McEntee@et.eurofinsus.com
303 736-0107

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	10
Surrogate Summary	11
QC Sample Results	12
QC Association	15
Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Manual Integration Summary	20
Reagent Traceability	35
COAs	40
Organic Sample Data	180
HPLC/IC	180
8330B_DOD5	180
8330B_DOD5 QC Summary	181
8330B_DOD5 Sample Data	187
Standards Data	226
8330B_DOD5 ICAL Data	226
8330B_DOD5 CCAL Data	453
Raw QC Data	514

Table of Contents

8330B_DOD5 Blank Data	514
8330B_DOD5 LCS/LCSD Data	522
8330B_DOD5 Run Logs	536
8330B_DOD5 Prep Data	540
Inorganic Sample Data	544
General Chemistry Data	544
Gen Chem Cover Page	545
Gen Chem Sample Data	546
Gen Chem QC Data	548
Gen Chem ICV/CCV	548
Gen Chem Blanks	551
Gen Chem LCS/LCSD	552
Gen Chem Calibration	555
Gen Chem MDL	558
Gen Chem Analysis Run Log	562
Gen Chem Prep Data	569
Gen Chem Raw Data	574
Shipping and Receiving Documents	624
Client Chain of Custody	625
Sample Receipt Checklist	629

Definitions/Glossary

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

Job ID: 280-190903-1

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.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

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

**Job Narrative
280-190903-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

Receipt

The samples were received on 5/2/2024 9:10 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 time was 0.6°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Method 8330B - Nitroaromatics and Nitramines (HPLC)

Samples FWGmw-015-240401-GW (280-190903-2), FBQmw-173-240401-GW (280-190903-4) and FBQmw-173-240402-GW (280-190903-5) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 5/8/2024 and analyzed on 5/9/2024 and 5/10/2024.

The following sample: FWGmw-015-240401-GW (280-190903-2) was decanted prior to preparation due to insufficient headspace for the addition of sodium chloride. Method 3535/8330B_DOD5.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-652546. An LCS/LCSD was prepared instead. FWGmw-015-240401-GW (280-190903-2), FBQmw-173-240401-GW (280-190903-4) and FBQmw-173-240402-GW (280-190903-5)

The laboratory control sample and laboratory control sample duplicate (LCS/LCSD) for preparation batch 280-652546 and analytical batch 280-652806 recovered outside control limits for the following analytes: m-Nitrotoluene(73-125%R) at 65%R/64%R, o-Nitrotoluene(70-127%R) at 67%R(LCSD), and p-Nitrotoluene(71-127%R) at 66%R/65%R. The associated samples are impacted: FWGmw-015-240401-GW (280-190903-2), FBQmw-173-240401-GW (280-190903-4) and FBQmw-173-240402-GW (280-190903-5). The same analytes failed low in the re-extraction LCS/LCSD. Both original and re-extraction are ND for affected analytes in associated samples. Only the in-hold data have been reported.

Method 350.1 - Nitrogen, Ammonia

Samples LL12mw-185-240401-GW (280-190903-1) and LL12mw-245-240401-GW (280-190903-3) were analyzed for Nitrogen, Ammonia. The samples were analyzed on 5/11/2024.

Method 9056 - Anions, Ion Chromatography

Samples LL12mw-185-240401-GW (280-190903-1) and LL12mw-245-240401-GW (280-190903-3) were analyzed for Anions, Ion Chromatography. The samples were analyzed on 5/2/2024.

Sample LL12mw-185-240401-GW (280-190903-1)[20x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Detection Summary

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

Job ID: 280-190903-1

Client Sample ID: LL12mw-185-240401-GW

Lab Sample ID: 280-190903-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.089	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate as N	57	D	10	4.0	1.8	mg/L	20		9056	Total/NA

Client Sample ID: FWGmw-015-240401-GW

Lab Sample ID: 280-190903-2

No Detections.

Client Sample ID: LL12mw-245-240401-GW

Lab Sample ID: 280-190903-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.089	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate as N	0.10	J	0.50	0.20	0.090	mg/L	1		9056	Total/NA

Client Sample ID: FBQmw-173-240401-GW

Lab Sample ID: 280-190903-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	0.079	J	0.11	0.10	0.047	ug/L	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	0.94		0.11	0.10	0.053	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	1.2		0.16	0.12	0.060	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-173-240402-GW

Lab Sample ID: 280-190903-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene	0.84		0.12	0.11	0.053	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	1.1		0.16	0.13	0.061	ug/L	1		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 280-190903-1

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

Client Sample ID: FWGmw-015-240401-GW
Date Collected: 05/01/24 10:15
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		05/09/24 18:38	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		05/09/24 18:38	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/09/24 18:38	1
2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030	ug/L		05/09/24 18:38	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043	ug/L		05/09/24 18:38	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		05/09/24 18:38	1
2-Nitrotoluene	0.22	U Q M	0.23	0.22	0.092	ug/L		05/09/24 18:38	1
3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21	ug/L		05/09/24 18:38	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		05/09/24 18:38	1
4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11	ug/L		05/09/24 18:38	1
HMX	0.22	U	0.23	0.22	0.095	ug/L		05/09/24 18:38	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		05/09/24 18:38	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		05/09/24 18:38	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/09/24 18:38	1
RDX	0.22	U	0.23	0.22	0.056	ug/L		05/09/24 18:38	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/09/24 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	96	M	83 - 119	05/08/24 13:50	05/09/24 18:38	1

Client Sample ID: FBQmw-173-240401-GW
Date Collected: 05/01/24 14:45
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		05/09/24 19:01	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		05/09/24 19:01	1
2,4,6-Trinitrotoluene	0.079	J	0.11	0.10	0.047	ug/L		05/09/24 19:01	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		05/09/24 19:01	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		05/09/24 19:01	1
2-Amino-4,6-dinitrotoluene	0.94		0.11	0.10	0.053	ug/L		05/09/24 19:01	1
2-Nitrotoluene	0.21	U Q	0.22	0.21	0.089	ug/L		05/09/24 19:01	1
3-Nitrotoluene	0.36	U Q	0.42	0.36	0.20	ug/L		05/09/24 19:01	1
4-Amino-2,6-dinitrotoluene	1.2		0.16	0.12	0.060	ug/L		05/09/24 19:01	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.10	ug/L		05/09/24 19:01	1
HMX	0.21	U	0.22	0.21	0.091	ug/L		05/09/24 19:01	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		05/09/24 19:01	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		05/09/24 19:01	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		05/09/24 19:01	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/10/24 00:28	1
Tetryl	0.10	U M	0.11	0.10	0.033	ug/L		05/09/24 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	94	M	83 - 119	05/08/24 13:50	05/09/24 19:01	1
1,2-Dinitrobenzene	94	M	83 - 119	05/08/24 13:50	05/10/24 00:28	1

Client Sample ID: FBQmw-173-240402-GW
Date Collected: 05/01/24 14:45
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-5
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		05/09/24 19:24	1

Client Sample Results

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

Job ID: 280-190903-1

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

Client Sample ID: FBQmw-173-240402-GW
Date Collected: 05/01/24 14:45
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/09/24 19:24	1
2,4,6-Trinitrotoluene	0.11	U M	0.12	0.11	0.047	ug/L		05/10/24 01:04	1
2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029	ug/L		05/09/24 19:24	1
2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042	ug/L		05/09/24 19:24	1
2-Amino-4,6-dinitrotoluene	0.84		0.12	0.11	0.053	ug/L		05/09/24 19:24	1
2-Nitrotoluene	0.21	U Q	0.22	0.21	0.090	ug/L		05/09/24 19:24	1
3-Nitrotoluene	0.37	U Q	0.42	0.37	0.20	ug/L		05/09/24 19:24	1
4-Amino-2,6-dinitrotoluene	1.1		0.16	0.13	0.061	ug/L		05/09/24 19:24	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.11	ug/L		05/09/24 19:24	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/09/24 19:24	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/09/24 19:24	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/09/24 19:24	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/09/24 19:24	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/10/24 01:04	1
Tetryl	0.11	U M	0.12	0.11	0.033	ug/L		05/09/24 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	85	M	83 - 119	05/08/24 13:50	05/09/24 19:24	1
1,2-Dinitrobenzene	87	M	83 - 119	05/08/24 13:50	05/10/24 01:04	1

General Chemistry

Client Sample ID: LL12mw-185-240401-GW
Date Collected: 05/01/24 10:12
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.089	J	0.10	0.050	0.029	mg/L		05/11/24 15:31	1
Nitrate as N (SW846 9056)	57	D	10	4.0	1.8	mg/L		05/02/24 18:56	20

Client Sample ID: LL12mw-245-240401-GW
Date Collected: 05/01/24 11:45
Date Received: 05/02/24 09:10

Lab Sample ID: 280-190903-3
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.089	J	0.10	0.050	0.029	mg/L		05/11/24 14:35	1
Nitrate as N (SW846 9056)	0.10	J	0.50	0.20	0.090	mg/L		05/02/24 19:47	1

Default Detection Limits

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

Job ID: 280-190903-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	0.21	0.084	ug/L
1,3-Dinitrobenzene	0.11	0.037	ug/L
2,4,6-Trinitrotoluene	0.11	0.045	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-Dinitrotoluene	0.10	0.040	ug/L
2-Amino-4,6-dinitrotoluene	0.11	0.051	ug/L
2-Nitrotoluene	0.21	0.086	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.15	0.058	ug/L
4-Nitrotoluene	0.41	0.10	ug/L
HMX	0.21	0.088	ug/L
Nitrobenzene	0.21	0.091	ug/L
Nitroglycerin	2.1	0.92	ug/L
PETN	1.1	0.45	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

General Chemistry

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

Surrogate Summary

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

Job ID: 280-190903-1

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)
280-190903-2	FWGmw-015-240401-GW	96 M
280-190903-4	FBQmw-173-240401-GW	94 M
280-190903-5	FBQmw-173-240402-GW	85 M
LCS 280-652546/2-A	Lab Control Sample	95 M
LCSD 280-652546/3-A	Lab Control Sample Dup	94 M
MB 280-652546/1-A	Method Blank	83 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)
280-190903-4	FBQmw-173-240401-GW	94 M
280-190903-5	FBQmw-173-240402-GW	87 M

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

QC Sample Results

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

Job ID: 280-190903-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-652546/1-A

Matrix: Water

Analysis Batch: 652806

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 652546

Analyte	MB	MB	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		05/09/24 17:29	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/09/24 17:29	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/09/24 17:29	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/09/24 17:29	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/09/24 17:29	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/09/24 17:29	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/09/24 17:29	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/09/24 17:29	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/09/24 17:29	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/09/24 17:29	1
HMX	0.20	U M	0.21	0.20	0.088	ug/L		05/09/24 17:29	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/09/24 17:29	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/09/24 17:29	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/09/24 17:29	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/09/24 17:29	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/09/24 17:29	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dinitrobenzene	83	M	83 - 119	05/08/24 13:50	05/09/24 17:29	1

Lab Sample ID: LCS 280-652546/2-A

Matrix: Water

Analysis Batch: 652806

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 652546

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
1,3,5-Trinitrobenzene	2.00	1.95	M	ug/L		98		73 - 125
1,3-Dinitrobenzene	2.00	1.81		ug/L		91		78 - 120
2,4,6-Trinitrotoluene	2.00	1.80		ug/L		90		71 - 123
2,4-Dinitrotoluene	2.00	1.68		ug/L		84		78 - 120
2,6-Dinitrotoluene	2.00	1.70		ug/L		85		77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.72		ug/L		86		79 - 120
2-Nitrotoluene	2.00	1.39		ug/L		70		70 - 127
3-Nitrotoluene	2.00	1.30	Q M	ug/L		65		73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.75		ug/L		88		76 - 125
4-Nitrotoluene	2.00	1.33	Q	ug/L		66		71 - 127
HMX	2.00	1.75		ug/L		88		65 - 135
Nitrobenzene	2.00	1.62		ug/L		81		65 - 134
Nitroglycerin	20.0	19.7		ug/L		99		74 - 127
PETN	20.0	20.0		ug/L		100		73 - 127
RDX	2.00	1.78		ug/L		89		68 - 130
Tetryl	2.00	1.71		ug/L		85		64 - 128

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	95	M	83 - 119

QC Sample Results

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

Job ID: 280-190903-1

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

Lab Sample ID: LCSD 280-652546/3-A
Matrix: Water
Analysis Batch: 652806

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652546

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
1,3,5-Trinitrobenzene	2.00	1.93	M	ug/L		96	73 - 125	1	20	
1,3-Dinitrobenzene	2.00	1.77		ug/L		89	78 - 120	2	20	
2,4,6-Trinitrotoluene	2.00	1.75		ug/L		88	71 - 123	3	20	
2,4-Dinitrotoluene	2.00	1.63		ug/L		82	78 - 120	3	20	
2,6-Dinitrotoluene	2.00	1.66		ug/L		83	77 - 127	3	20	
2-Amino-4,6-dinitrotoluene	2.00	1.68		ug/L		84	79 - 120	2	20	
2-Nitrotoluene	2.00	1.34	Q	ug/L		67	70 - 127	3	20	
3-Nitrotoluene	2.00	1.27	Q M	ug/L		64	73 - 125	2	20	
4-Amino-2,6-dinitrotoluene	2.00	1.71		ug/L		86	76 - 125	2	20	
4-Nitrotoluene	2.00	1.30	Q	ug/L		65	71 - 127	2	20	
HMX	2.00	1.76		ug/L		88	65 - 135	1	20	
Nitrobenzene	2.00	1.58		ug/L		79	65 - 134	2	20	
Nitroglycerin	20.0	19.8		ug/L		99	74 - 127	0	20	
PETN	20.0	20.0		ug/L		100	73 - 127	0	20	
RDX	2.00	1.77		ug/L		89	68 - 130	0	20	
Tetryl	2.00	1.72		ug/L		86	64 - 128	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	94	M	83 - 119

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-653086/77
Matrix: Water
Analysis Batch: 653086

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

Analyte	MB		LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	0.050	U	0.10	0.050	0.029	mg/L		05/11/24 14:03	1

Lab Sample ID: LCS 280-653086/78
Matrix: Water
Analysis Batch: 653086

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
Ammonia as N	2.50	2.47		mg/L		99	90 - 110	

Lab Sample ID: LCSD 280-653086/79
Matrix: Water
Analysis Batch: 653086

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Ammonia as N	2.50	2.55		mg/L		102	90 - 110	3	10	

QC Sample Results

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

Job ID: 280-190903-1

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-651853/6
Matrix: Water
Analysis Batch: 651853

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/02/24 13:26	1

Lab Sample ID: LCS 280-651853/4
Matrix: Water
Analysis Batch: 651853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	4.95		mg/L		99	88 - 111

Lab Sample ID: LCSD 280-651853/5
Matrix: Water
Analysis Batch: 651853

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	4.96		mg/L		99	88 - 111	0	10

Lab Sample ID: MRL 280-651853/3
Matrix: Water
Analysis Batch: 651853

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.500	0.450	J	mg/L		90	50 - 150

QC Association Summary

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

Job ID: 280-190903-1

HPLC/IC

Prep Batch: 652546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190903-2	FWGmw-015-240401-GW	Total/NA	Water	3535	
280-190903-4	FBQmw-173-240401-GW	Total/NA	Water	3535	
280-190903-5	FBQmw-173-240402-GW	Total/NA	Water	3535	
MB 280-652546/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-652546/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-652546/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 652806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190903-2	FWGmw-015-240401-GW	Total/NA	Water	8330B	652546
280-190903-4	FBQmw-173-240401-GW	Total/NA	Water	8330B	652546
280-190903-5	FBQmw-173-240402-GW	Total/NA	Water	8330B	652546
MB 280-652546/1-A	Method Blank	Total/NA	Water	8330B	652546
LCS 280-652546/2-A	Lab Control Sample	Total/NA	Water	8330B	652546
LCSD 280-652546/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	652546

Analysis Batch: 652810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190903-4	FBQmw-173-240401-GW	Total/NA	Water	8330B	652546
280-190903-5	FBQmw-173-240402-GW	Total/NA	Water	8330B	652546

General Chemistry

Analysis Batch: 651853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190903-1	LL12mw-185-240401-GW	Total/NA	Water	9056	
280-190903-3	LL12mw-245-240401-GW	Total/NA	Water	9056	
MB 280-651853/6	Method Blank	Total/NA	Water	9056	
LCS 280-651853/4	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-651853/5	Lab Control Sample Dup	Total/NA	Water	9056	
MRL 280-651853/3	Lab Control Sample	Total/NA	Water	9056	

Analysis Batch: 653086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190903-1	LL12mw-185-240401-GW	Total/NA	Water	350.1	
280-190903-3	LL12mw-245-240401-GW	Total/NA	Water	350.1	
MB 280-653086/77	Method Blank	Total/NA	Water	350.1	
LCS 280-653086/78	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-653086/79	Lab Control Sample Dup	Total/NA	Water	350.1	

Lab Chronicle

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

Job ID: 280-190903-1

Client Sample ID: LL12mw-185-240401-GW

Lab Sample ID: 280-190903-1

Date Collected: 05/01/24 10:12

Matrix: Water

Date Received: 05/02/24 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 15:31	LBR	EET DEN
Total/NA	Analysis	9056		20	10 mL	10 mL	651853	05/02/24 18:56	EJS	EET DEN

Client Sample ID: FWGmw-015-240401-GW

Lab Sample ID: 280-190903-2

Date Collected: 05/01/24 10:15

Matrix: Water

Date Received: 05/02/24 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			462.2 mL	5 mL	652546	05/08/24 13:50	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652806	05/09/24 18:38	JZ	EET DEN

Client Sample ID: LL12mw-245-240401-GW

Lab Sample ID: 280-190903-3

Date Collected: 05/01/24 11:45

Matrix: Water

Date Received: 05/02/24 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 14:35	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	651853	05/02/24 19:47	EJS	EET DEN

Client Sample ID: FBQmw-173-240401-GW

Lab Sample ID: 280-190903-4

Date Collected: 05/01/24 14:45

Matrix: Water

Date Received: 05/02/24 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			481.1 mL	5 mL	652546	05/08/24 13:50	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652810	05/10/24 00:28	JZ	EET DEN
Total/NA	Prep	3535			481.1 mL	5 mL	652546	05/08/24 13:50	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652806	05/09/24 19:01	JZ	EET DEN

Client Sample ID: FBQmw-173-240402-GW

Lab Sample ID: 280-190903-5

Date Collected: 05/01/24 14:45

Matrix: Water

Date Received: 05/02/24 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			476.1 mL	5 mL	652546	05/08/24 13:50	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652810	05/10/24 01:04	JZ	EET DEN
Total/NA	Prep	3535			476.1 mL	5 mL	652546	05/08/24 13:50	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652806	05/09/24 19:24	JZ	EET DEN

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 280-190903-1

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	10-31-24

Method Summary

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

Job ID: 280-190903-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

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

Job ID: 280-190903-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-190903-1	LL12mw-185-240401-GW	Water	05/01/24 10:12	05/02/24 09:10
280-190903-2	FWGmw-015-240401-GW	Water	05/01/24 10:15	05/02/24 09:10
280-190903-3	LL12mw-245-240401-GW	Water	05/01/24 11:45	05/02/24 09:10
280-190903-4	FBQmw-173-240401-GW	Water	05/01/24 14:45	05/02/24 09:10
280-190903-5	FBQmw-173-240402-GW	Water	05/01/24 14:45	05/02/24 09:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/10 Client Sample ID: _____

Date Analyzed: 04/24/24 21:28 Lab File ID: 04240010.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.38	Peak assignment corrected	LV5D	04/25/24 13:10
Nitroglycerin	14.88	Baseline	LV5D	04/25/24 13:10

Lab Sample ID: IC 280-650851/11 Client Sample ID: _____

Date Analyzed: 04/24/24 22:04 Lab File ID: 04240011.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:11
2,4,6-Trinitrotoluene	22.86	Baseline	LV5D	04/25/24 13:37

Lab Sample ID: IC 280-650851/12 Client Sample ID: _____

Date Analyzed: 04/24/24 22:40 Lab File ID: 04240012.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:19
2,4,6-Trinitrotoluene	22.87	Baseline	LV5D	04/25/24 13:37

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/13

Client Sample ID: _____

Date Analyzed: 04/24/24 23:16Lab File ID: 04240013.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.18	Baseline	LV5D	04/25/24 13:21
1,3-Dinitrobenzene	14.47	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:19
2-Nitrotoluene	15.51	Baseline	LV5D	04/25/24 13:21
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.24	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.57	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.05	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.27	Baseline	LV5D	04/25/24 13:21
2,6-Dinitrotoluene	18.35	Baseline	LV5D	04/25/24 13:21
2,4-Dinitrotoluene	18.81	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.87	Baseline	LV5D	04/25/24 13:37

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/14

Client Sample ID: _____

Date Analyzed: 04/24/24 23:51Lab File ID: 04240014.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.19	Baseline	LV5D	04/25/24 13:21
1,3-Dinitrobenzene	14.48	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:19
2-Nitrotoluene	15.51	Baseline	LV5D	04/25/24 13:21
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.25	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.58	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.06	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.27	Baseline	LV5D	04/25/24 13:21
2,6-Dinitrotoluene	18.37	Baseline	LV5D	04/25/24 13:21
2,4-Dinitrotoluene	18.82	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.88	Baseline	LV5D	04/25/24 13:37
PETN	24.03	Baseline	LV5D	04/25/24 13:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/15

Client Sample ID: _____

Date Analyzed: 04/25/24 00:27Lab File ID: 04240015.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.21	Baseline	LV5D	04/25/24 13:24
1,3-Dinitrobenzene	14.49	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.95	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.53	Baseline	LV5D	04/25/24 13:24
4-Nitrotoluene	15.76	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.27	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.60	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.08	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.29	Baseline	LV5D	04/25/24 13:24
2,6-Dinitrotoluene	18.38	Baseline	LV5D	04/25/24 13:24
2,4-Dinitrotoluene	18.84	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.91	Baseline	LV5D	04/25/24 13:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/16

Client Sample ID: _____

Date Analyzed: 04/25/24 01:03Lab File ID: 04240016.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:32
3,5-Dinitroaniline	14.20	Baseline	LV5D	04/25/24 13:25
1,3-Dinitrobenzene	14.50	Baseline	LV5D	04/25/24 13:25
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.52	Baseline	LV5D	04/25/24 13:25
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:25
4-Amino-2,6-dinitrotoluene	16.25	Baseline	LV5D	04/25/24 13:35
3-Nitrotoluene	16.58	Baseline	LV5D	04/25/24 13:25
2-Amino-4,6-dinitrotoluene	17.06	Baseline	LV5D	04/25/24 13:25
1,3,5-Trinitrobenzene	17.28	Baseline	LV5D	04/25/24 13:25
Tetryl	22.02	Baseline	LV5D	04/25/24 13:25
2,4,6-Trinitrotoluene	22.88	Baseline	LV5D	04/25/24 13:25
PETN	24.02	Baseline	LV5D	04/25/24 13:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/17

Client Sample ID: _____

Date Analyzed: 04/25/24 01:39Lab File ID: 04240017.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:31
Picric acid	8.73	Baseline	LV5D	04/25/24 13:32
RDX	8.95	Baseline	LV5D	04/25/24 13:32
Nitrobenzene	11.46	Baseline	LV5D	04/25/24 13:26
1,2-Dinitrobenzene	12.39	Baseline	LV5D	04/25/24 13:26
3,5-Dinitroaniline	14.23	Baseline	LV5D	04/25/24 13:26
1,3-Dinitrobenzene	14.52	Baseline	LV5D	04/25/24 13:26
Nitroglycerin	14.98	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.56	Baseline	LV5D	04/25/24 13:35
4-Nitrotoluene	15.77	Baseline	LV5D	04/25/24 13:35
4-Amino-2,6-dinitrotoluene	16.29	Baseline	LV5D	04/25/24 13:35
3-Nitrotoluene	16.62	Baseline	LV5D	04/25/24 13:35
2-Amino-4,6-dinitrotoluene	17.10	Baseline	LV5D	04/25/24 13:35
1,3,5-Trinitrobenzene	17.31	Baseline	LV5D	04/25/24 13:35
2,6-Dinitrotoluene	18.39	Baseline	LV5D	04/25/24 13:26
2,4-Dinitrotoluene	18.85	Baseline	LV5D	04/25/24 13:26
Tetryl	22.07	Baseline	LV5D	04/25/24 13:26
2,4,6-Trinitrotoluene	22.93	Baseline	LV5D	04/25/24 13:27

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA

Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/18

Client Sample ID: _____

Date Analyzed: 04/25/24 02:15

Lab File ID: 04240018.D

GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:31
Nitrobenzene	11.43	Baseline	LV5D	04/25/24 13:27
1,2-Dinitrobenzene	12.36	Baseline	LV5D	04/25/24 13:28
3,5-Dinitroaniline	14.20	Baseline	LV5D	04/25/24 13:29
1,3-Dinitrobenzene	14.49	Baseline	LV5D	04/25/24 13:28
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.53	Baseline	LV5D	04/25/24 13:29
4-Nitrotoluene	15.75	Baseline	LV5D	04/25/24 13:29
4-Amino-2,6-dinitrotoluene	16.26	Baseline	LV5D	04/25/24 13:29
3-Nitrotoluene	16.59	Baseline	LV5D	04/25/24 13:29
2-Amino-4,6-dinitrotoluene	17.09	Baseline	LV5D	04/25/24 13:29
1,3,5-Trinitrobenzene	17.29	Baseline	LV5D	04/25/24 13:29
2,6-Dinitrotoluene	18.38	Baseline	LV5D	04/25/24 13:29
2,4-Dinitrotoluene	18.83	Baseline	LV5D	04/25/24 13:29
2,4,6-Trinitrotoluene	22.90	Baseline	LV5D	04/25/24 13:38

Lab Sample ID: ICV 280-650851/19

Client Sample ID: _____

Date Analyzed: 04/25/24 02:51

Lab File ID: 04240019.D

GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.93	Baseline	LV5D	04/25/24 13:30

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 652810
 Lab Sample ID: CCV 280-652810/14 Client Sample ID: _____
 Date Analyzed: 05/09/24 21:28 Lab File ID: 05090014.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	11.35	Baseline	LV5D	05/10/24 12:59
1,2-Dinitrobenzene	12.23	Baseline	LV5D	05/10/24 12:59
3,5-Dinitroaniline	14.03	Baseline	LV5D	05/10/24 12:59
1,3-Dinitrobenzene	14.35	Baseline	LV5D	05/10/24 12:59
Nitroglycerin	14.80	Baseline	LV5D	05/10/24 12:59
2-Nitrotoluene	15.38	Baseline	LV5D	05/10/24 12:59
4-Nitrotoluene	15.61	Baseline	LV5D	05/10/24 12:59
4-Amino-2,6-dinitrotoluene	16.07	Baseline	LV5D	05/10/24 12:59
3-Nitrotoluene	16.44	Baseline	LV5D	05/10/24 12:59
2-Amino-4,6-dinitrotoluene	16.87	Baseline	LV5D	05/10/24 12:59
1,3,5-Trinitrobenzene	17.13	Baseline	LV5D	05/10/24 12:59
2,6-Dinitrotoluene	18.18	Baseline	LV5D	05/10/24 12:59
2,4-Dinitrotoluene	18.63	Baseline	LV5D	05/10/24 12:59
Tetryl	21.74	Baseline	LV5D	05/10/24 12:59
2,4,6-Trinitrotoluene	22.62	Baseline	LV5D	05/10/24 12:59

Lab Sample ID: 280-190903-4 Client Sample ID: FBQmw-173-240401-GW
 Date Analyzed: 05/10/24 00:28 Lab File ID: 05090019.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/10/24 14:52
4-Nitrotoluene		Invalid Compound ID	LV5D	05/10/24 14:52
Nitroglycerin		Invalid Compound ID	LV5D	05/10/24 14:52
1,2-Dinitrobenzene	12.24	Baseline	LV5D	05/10/24 14:53
4-Amino-2,6-dinitrotoluene	16.11	Baseline	LV5D	05/10/24 14:52
2-Amino-4,6-dinitrotoluene	16.91	Baseline	LV5D	05/10/24 14:52
2,4,6-Trinitrotoluene	22.69	Baseline	LV5D	05/10/24 14:52

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA

Analysis Batch Number: 652810

Lab Sample ID: 280-190903-5

Client Sample ID: FBQmw-173-240402-GW

Date Analyzed: 05/10/24 01:04

Lab File ID: 05090020.D

GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene		Invalid Compound ID	LV5D	05/10/24 14:53
2-Nitrotoluene		Invalid Compound ID	LV5D	05/10/24 14:53
Nitroglycerin		Invalid Compound ID	LV5D	05/10/24 14:53
1,2-Dinitrobenzene	12.25	Baseline	LV5D	05/10/24 14:53
4-Amino-2,6-dinitrotoluene	16.11	Baseline	LV5D	05/10/24 14:53
2-Amino-4,6-dinitrotoluene	16.91	Baseline	LV5D	05/10/24 14:53

Lab Sample ID: CCV 280-652810/25

Client Sample ID: _____

Date Analyzed: 05/10/24 04:04

Lab File ID: 05090025.D

GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	11.35	Baseline	LV5D	05/10/24 15:10
1,2-Dinitrobenzene	12.25	Baseline	LV5D	05/10/24 15:10
3,5-Dinitroaniline	14.07	Baseline	LV5D	05/10/24 15:10
1,3-Dinitrobenzene	14.38	Baseline	LV5D	05/10/24 15:10
Nitroglycerin	14.86	Baseline	LV5D	05/10/24 15:09
2-Nitrotoluene	15.43	Baseline	LV5D	05/10/24 15:10
4-Nitrotoluene	15.67	Baseline	LV5D	05/10/24 15:10
4-Amino-2,6-dinitrotoluene	16.14	Baseline	LV5D	05/10/24 15:10
3-Nitrotoluene	16.50	Baseline	LV5D	05/10/24 15:10
2-Amino-4,6-dinitrotoluene	16.94	Baseline	LV5D	05/10/24 15:10
1,3,5-Trinitrobenzene	17.18	Baseline	LV5D	05/10/24 15:10
2,6-Dinitrotoluene	18.26	Baseline	LV5D	05/10/24 15:10
2,4-Dinitrotoluene	18.71	Baseline	LV5D	05/10/24 15:10
Tetryl	21.86	Baseline	LV5D	05/10/24 15:10
2,4,6-Trinitrotoluene	22.72	Baseline	LV5D	05/10/24 15:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/11 Client Sample ID: _____

Date Analyzed: 04/17/24 20:37 Lab File ID: 04170011.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.78	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/12 Client Sample ID: _____

Date Analyzed: 04/17/24 21:00 Lab File ID: 04170012.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/13 Client Sample ID: _____

Date Analyzed: 04/17/24 21:23 Lab File ID: 04170013.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/14 Client Sample ID: _____

Date Analyzed: 04/17/24 21:46 Lab File ID: 04170014.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:14
HMX	6.59	Baseline	LV5D	04/18/24 11:14
DNX	6.79	Baseline	LV5D	04/18/24 11:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/15 Client Sample ID: _____

Date Analyzed: 04/17/24 22:09 Lab File ID: 04170015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:15
HMX	6.58	Baseline	LV5D	04/18/24 11:15
DNX	6.79	Baseline	LV5D	04/18/24 11:15
3-Nitrotoluene	13.40	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/16 Client Sample ID: _____

Date Analyzed: 04/17/24 22:32 Lab File ID: 04170016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.79	Baseline	LV5D	04/18/24 11:16
PETN	14.48	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/17 Client Sample ID: _____

Date Analyzed: 04/17/24 22:55 Lab File ID: 04170017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.78	Baseline	LV5D	04/18/24 11:16
PETN	14.49	Baseline	LV5D	04/18/24 11:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3Analysis Batch Number: 649950Lab Sample ID: IC 280-649950/18

Client Sample ID: _____

Date Analyzed: 04/17/24 23:18Lab File ID: 04170018.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.79	Baseline	LV5D	04/18/24 11:17
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:17
Tetryl	9.96	Baseline	LV5D	04/18/24 11:17
Nitroglycerin	10.42	Baseline	LV5D	04/18/24 11:17
PETN	14.48	Baseline	LV5D	04/18/24 11:17

Lab Sample ID: IC 280-649950/19

Client Sample ID: _____

Date Analyzed: 04/17/24 23:41Lab File ID: 04170019.DGC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:18
HMX	6.58	Baseline	LV5D	04/18/24 11:18
DNX	6.79	Baseline	LV5D	04/18/24 11:18
RDX	7.58	Baseline	LV5D	04/18/24 11:18
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:18
Tetryl	9.95	Baseline	LV5D	04/18/24 11:18
Nitroglycerin	10.43	Baseline	LV5D	04/18/24 11:17
PETN	14.49	Baseline	LV5D	04/18/24 11:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950
 Lab Sample ID: ICV 280-649950/20 Client Sample ID: _____
 Date Analyzed: 04/18/24 00:04 Lab File ID: 04170020.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:20
HMX	6.58	Baseline	LV5D	04/18/24 11:20
DNX	6.79	Baseline	LV5D	04/18/24 11:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 652806

Lab Sample ID: CCV 280-652806/7 Client Sample ID: _____

Date Analyzed: 05/09/24 17:06 Lab File ID: 05090007.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 17:54

Lab Sample ID: MB 280-652546/1-A Client Sample ID: _____

Date Analyzed: 05/09/24 17:29 Lab File ID: 05090011.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 17:54
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/09/24 17:55
1,3,5-Trinitrobenzene		Baseline	LV5D	05/09/24 17:55

Lab Sample ID: LCS 280-652546/2-A Client Sample ID: _____

Date Analyzed: 05/09/24 17:52 Lab File ID: 05090012.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 18:21
1,3,5-Trinitrobenzene	8.69	Baseline	LV5D	05/09/24 18:21
3-Nitrotoluene	13.37	Baseline	LV5D	05/09/24 18:21

Lab Sample ID: LCSD 280-652546/3-A Client Sample ID: _____

Date Analyzed: 05/09/24 18:15 Lab File ID: 05090013.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/09/24 18:40
1,3,5-Trinitrobenzene	8.69	Baseline	LV5D	05/09/24 18:40
3-Nitrotoluene	13.39	Baseline	LV5D	05/09/24 18:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 652806

Lab Sample ID: 280-190903-2 Client Sample ID: FWGmw-015-240401-GW

Date Analyzed: 05/09/24 18:38 Lab File ID: 05090014.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 19:01
2-Nitrotoluene	12.39	Baseline	LV5D	05/09/24 19:01

Lab Sample ID: 280-190903-4 Client Sample ID: FBQmw-173-240401-GW

Date Analyzed: 05/09/24 19:01 Lab File ID: 05090015.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.63	Baseline	LV5D	05/09/24 19:28
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 19:28
Tetryl		Invalid Compound ID	LV5D	05/09/24 19:28

Lab Sample ID: 280-190903-5 Client Sample ID: FBQmw-173-240402-GW

Date Analyzed: 05/09/24 19:24 Lab File ID: 05090016.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.62	Baseline	LV5D	05/09/24 19:47
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/09/24 19:47
Tetryl		Invalid Compound ID	LV5D	05/09/24 19:47

Lab Sample ID: CCV 280-652806/21 Client Sample ID: _____

Date Analyzed: 05/09/24 21:19 Lab File ID: 05090021.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/10/24 12:18

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal 00629	05/14/24	05/07/24	Di Water, Lot na	100 mL	NH3 CAL STD 00036	10 mL	Ammonia as N	100 mg/L
.NH3 CAL STD 00036	06/30/25		Ricca, Lot 2312g14		(Purchased Reagent)		Ammonia as N	1000 mg/L
350.1 ICV 00608	05/14/24	05/07/24	na, Lot na	100 mL	NH3 ICV STD 00034	10 mL	Ammonia as N	100.2 mg/L
.NH3 ICV STD 00034	01/25/25		Inorganic Ventures, Lot S2-NH700817		(Purchased Reagent)		Ammonia as N	1002 mg/L
8330 DMT_00016	06/30/24	01/24/24	Acetonitrile, Lot 233799	5 mL	MNX,TNX,DXN_00092	1 mL	DNX	20.04 ug/mL
							MNX	23.38 ug/mL
							TNX	20.08 ug/mL
.MNX,TNX,DXN_00092	06/30/24		Agilent, Lot 0006744504		(Purchased Reagent)		DNX	100.2 ug/mL
							MNX	116.9 ug/mL
							TNX	100.4 ug/mL
8330 LCS_00134	08/29/24	02/29/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	8330 LCSTmix2_00113	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330 NG Stk 00145	1 mL	Nitroglycerin	100 ug/mL
					8330 NG Stk 00147	1 mL	Nitroglycerin	100 ug/mL
					8330 PETN Stk 00152	1 mL	PETN	100 ug/mL
					8330 PETN Stk 00153	1 mL	PETN	100 ug/mL
					8330LCSTmix1_00151	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
.8330 LCSTmix2_00113	02/28/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330 NG Stk 00145	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 NG Stk 00147	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 PETN Stk 00152	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330 PETN Stk 00153	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSTmix1_00151	02/28/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
8330 LCS_00135	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	3,5-DNA Stock_00052	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00114	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
					Tetryl	10 ug/mL		
					8330 NG Stk 00148	1 mL	Nitroglycerin	100 ug/mL
					8330 NG Stk 00150	1 mL	Nitroglycerin	100 ug/mL
					8330 PETN Stk 00154	1 mL	PETN	100 ug/mL
					8330 PETN Stk 00156	1 mL	PETN	100 ug/mL
					8330LCSMix1_00152	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
2,4-Dinitrotoluene	10 ug/mL							
HMX	10 ug/mL							
Nitrobenzene	10 ug/mL							
RDX	10 ug/mL							
PicricARestek_00124	1 mL	2,4,6-Trinitrophenol	10 ug/mL					
Ammonium Picrate	10.74 ug/mL							
.3,5-DNA Stock 00052	04/26/25		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00114	04/26/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
Tetryl	1000 ug/mL							
.8330 NG Stk 00148	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 NG Stk 00150	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 PETN Stk 00154	04/26/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330 PETN Stk 00156	04/26/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00152	04/26/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
RDX	1000 ug/mL							
.PicricARestek_00124	04/26/25		Restek, Lot A0195778		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
							Ammonium Picrate	1074 ug/mL
8330IntermStk_00080	05/14/24	04/17/24	Acetonitrile, Lot 223272	10 mL	8330_NG1000_00012	1 mL	Nitroglycerin	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
					8330 PETN1000 00016	1 mL	PETN	100 ug/mL	
					833035DNASTk 00059	1 mL	3,5-Dinitroaniline	10 ug/mL	
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL	
							1,3-Dinitrobenzene	10 ug/mL	
							2,4,6-Trinitrotoluene	10 ug/mL	
							2,4-Dinitrotoluene	10 ug/mL	
							2,6-Dinitrotoluene	10 ug/mL	
							2-Amino-4,6-dinitrotoluene	10 ug/mL	
							2-Nitrotoluene	10 ug/mL	
							3-Nitrotoluene	10 ug/mL	
							4-Amino-2,6-dinitrotoluene	10 ug/mL	
							4-Nitrotoluene	10 ug/mL	
							HMX	10 ug/mL	
							Nitrobenzene	10 ug/mL	
							RDX	10 ug/mL	
							Tetryl	10 ug/mL	
							1,2-Dinitrobenzene	10 ug/mL	
					8330PASTkPS 00075	1 mL	2,4,6-Trinitrophenol	10 ug/mL	
.8330 NG1000 00012	04/17/25		Restek, Lot A0197032				(Purchased Reagent)	Nitroglycerin	1000 ug/mL
.8330 PETN1000 00016	04/17/25		Restek, Lot A0198747				(Purchased Reagent)	PETN	1000 ug/mL
.833035DNASTk 00059	05/14/24		Accustandard, Lot 223041214				(Purchased Reagent)	3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL		1,3,5-Trinitrobenzene	100 ug/mL
								1,3-Dinitrobenzene	100 ug/mL
								2,4,6-Trinitrotoluene	100 ug/mL
								2,4-Dinitrotoluene	100 ug/mL
								2,6-Dinitrotoluene	100 ug/mL
								2-Amino-4,6-dinitrotoluene	100 ug/mL
								2-Nitrotoluene	100 ug/mL
								3-Nitrotoluene	100 ug/mL
								4-Amino-2,6-dinitrotoluene	100 ug/mL
								4-Nitrotoluene	100 ug/mL
								HMX	100 ug/mL
								Nitrobenzene	100 ug/mL
								RDX	100 ug/mL
								Tetryl	100 ug/mL
					8330SurrStock 00173	1 mL		1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25		Agilent, Lot 0006684308				(Purchased Reagent)	1,3,5-Trinitrobenzene	1000 ug/mL
								1,3-Dinitrobenzene	1000 ug/mL
								2,4,6-Trinitrotoluene	1000 ug/mL
								2,4-Dinitrotoluene	1000 ug/mL
								2,6-Dinitrotoluene	1000 ug/mL
								2-Amino-4,6-dinitrotoluene	1000 ug/mL
								2-Nitrotoluene	1000 ug/mL
								3-Nitrotoluene	1000 ug/mL
								4-Amino-2,6-dinitrotoluene	1000 ug/mL
								4-Nitrotoluene	1000 ug/mL
								HMX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
.8330SurrStock 00173	01/23/25		AccuStandard, Lot 219051500			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330FAStkPS 00075	04/12/25		AccuStandard, Lot 223041157			(Purchased Reagent)	2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00154	09/01/24	03/01/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00310	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00311	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00312	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00314	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00315	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS 00310	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00311	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00312	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00314	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00315	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00155	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00313	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00316	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00317	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00318	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00319	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00313	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00316	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00317	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00318	04/26/25		Restek, Lot A0205460			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00319	04/26/25		Restek, Lot A0205460			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
IC Cal low_00763	04/03/24	03/27/24	Di Water, Lot NA	100 mL	IC N03 cal 00030	5 mL	Nitrate as N	50 mg/L
					NO2 Cal std 00040	5 mL	Nitrite as N	50 mg/L
.IC N03 cal 00030	10/31/24		Ricca, Lot 1304R00			(Purchased Reagent)	Nitrate as N	1000 mg/L
.NO2 Cal std 00040	04/30/24		ERA, Lot 4310M18			(Purchased Reagent)	Nitrite as N	1000 mg/L
IC Cal low 00772	05/07/24	04/30/24	Di Water, Lot NA	100 mL	IC N03 cal 00030	5 mL	Nitrate as N	50 mg/L
.IC N03 cal 00030	10/31/24		Ricca, Lot 1304R00			(Purchased Reagent)	Nitrate as N	1000 mg/L
IC ICV 5 00432	04/04/24	03/28/24	Di Water, Lot na	100 mL	IC N03 ICV 00020	5 mL	Nitrate as N	50 mg/L
.IC N03 ICV 00020	10/13/24		ERA, Lot 341022m			(Purchased Reagent)	Nitrate as N	1000 mg/L
IC LCS_02033	05/08/24	05/02/24	Di Water, Lot 27	200 mL	IC Cal low_00774	20 mL	Nitrate as N	5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC Cal low_00774	05/08/24	05/01/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
..IC N03 cal_00030	10/31/24		Ricca, Lot 1304R00		(Purchased Reagent)		Nitrate as N	1000 mg/L

Reagent

3,5-DNA Stock_00052



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 LCS_00134

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240301-130735.b\03010011.D
 Lims ID: 8330 LCS_00134 Inj. Date: 01-Mar-2024 12:30:35
 Worklist ID: 280-0130735-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
4 HMX	0.5000	0.4367	87.3	66-115	65-135
8 RDX	0.5000	0.4730	94.6	69-122	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5271	105.4	63-135	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5189	103.8	62-127	73-125
12 1,3-Dinitrobenzene	0.5000	0.5073	101.5	59-131	78-120
13 Nitrobenzene	0.5000	0.5288	105.8	46-144	65-134
14 3,5-Dinitroaniline	0.5000	0.5048	101.0	55-119	71-117
15 Tetryl	0.5000	0.4891	97.8	56-131	64-128
16 Nitroglycerin	5.00	5.39	107.8	70-125	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4808	96.2	46-139	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4971	99.4	43-120	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4882	97.6	46-124	79-120
20 2,6-Dinitrotoluene	0.5000	0.4971	99.4	51-130	77-127
21 2,4-Dinitrotoluene	0.5000	0.4832	96.6	53-127	78-120
22 o-Nitrotoluene	0.5000	0.5062	101.2	37-138	70-127
23 p-Nitrotoluene	0.5000	0.5029	100.6	41-137	71-127
24 m-Nitrotoluene	0.5000	0.5100	102.0	31-140	73-125
25 PETN	5.00	5.09	101.7	67-127	73-127

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

280-188024-A-1-A

280-188024-A-2-A

280-188024-A-3-A

280-188024-A-4-A

280-188024-A-5-A

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

410-161632-D-1-A

410-161632-D-2-A

410-161632-D-4-A

410-161632-D-6-A

410-161632-A-7-A

410-161632-A-8-A

Reagent

8330 LCS_00135

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR135.D
 Lims ID: 8330LCS135 Inj. Date: 26-Apr-2024 16:12:12
 Worklist ID: 280-0132709-057 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4520	90.4	65-135
8 RDX	0.5000	0.4499	90.0	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5151	103.0	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5018	100.4	73-125
12 1,3-Dinitrobenzene	0.5000	0.4976	99.5	78-120
13 Nitrobenzene	0.5000	0.5060	101.2	65-134
14 3,5-Dinitroaniline	0.5000	0.4915	98.3	71-117
15 Tetryl	0.5000	0.5018	100.4	64-128
16 Nitroglycerin	5.00	5.01	100.1	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4764	95.3	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4969	99.4	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4860	97.2	79-120
20 2,6-Dinitrotoluene	0.5000	0.4963	99.3	77-127
21 2,4-Dinitrotoluene	0.5000	0.4811	96.2	78-120
22 o-Nitrotoluene	0.5000	0.4850	97.0	70-127
23 p-Nitrotoluene	0.5000	0.4768	95.4	71-127
24 m-Nitrotoluene	0.5000	0.4770	95.4	73-125
25 PETN	5.00	5.19	103.8	73-127

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

280-190264-C-6-A	410-168708-B-13-A	410-168533-E-1-A
410-168533-D-2-A	410-168533-E-3-A	410-168533-D-4-A
410-168533-E-5-A	410-168533-D-6-A	410-168533-E-8-A
410-168533-D-9-A	410-168533-B-10-A	410-168533-C-11-A
410-168533-B-12-A	410-168533-B-13-A	410-168533-B-14-A
410-168533-C-15-A	280-190487-B-1-A	280-190487-B-2-A
280-190487-B-3-A	280-190487-B-4-A	280-190487-B-5-A
280-190487-B-6-A	280-190487-B-7-A	280-190487-B-8-A
280-190487-B-9-A	280-190487-B-10-A	280-190487-B-11-A
280-190487-B-12-A	280-190487-B-13-A	280-190487-B-14-A
280-190487-B-15-A	280-190487-B-16-A	

Reagent

8330 LCsMix2_00113



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0199657
Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

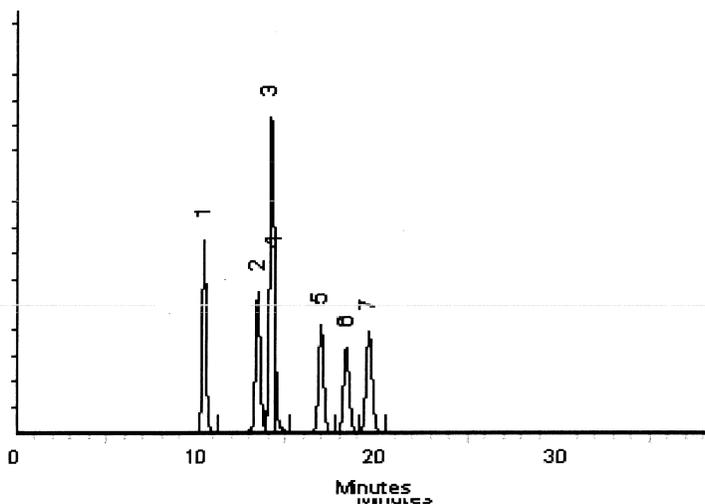
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



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

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 LCsMix2_00114



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0199657
Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

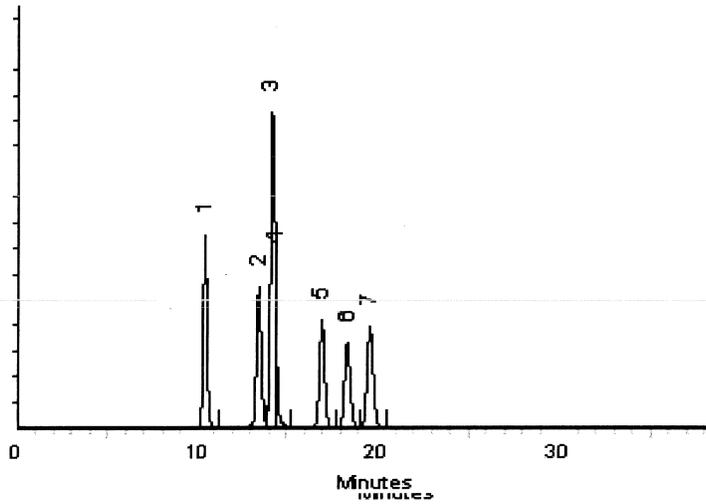
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

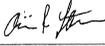
Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



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


Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023

Balance Serial # B251644995


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 Stock_TS_00024



ISO 17034

Reference Material Certificate
Product Information Sheet

Product Name: Stock Standard

Lot Number: 0006684308

Product Number: NAIM-833E-1

Lot Issue Date: 01-Jun-2022

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

Expiration Date: 30-Jun-2025

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

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

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

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Reagent

8330_NG_Stk_00145



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0201048
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%	5,008.0 µg/mL	+/- 236.3643

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

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

Page 60 of 629

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

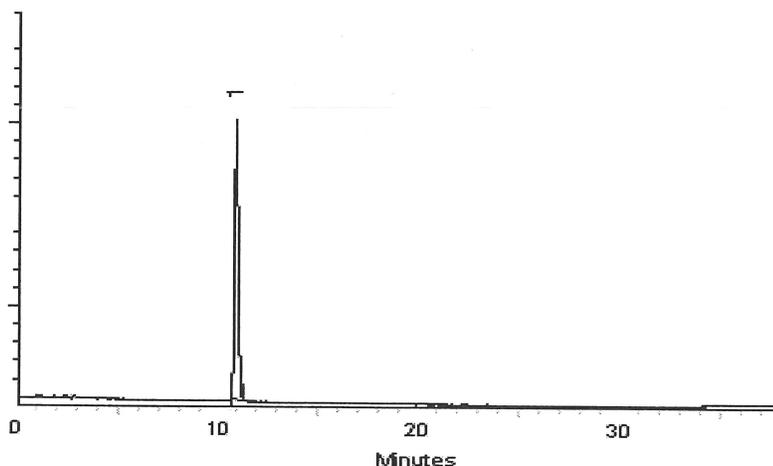
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Kyle Struble
Kylie Struble - Operations Technician I

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 25-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00147



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0201048
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%	5,008.0 µg/mL	+/- 236.3643

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

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

Page 65 of 629

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

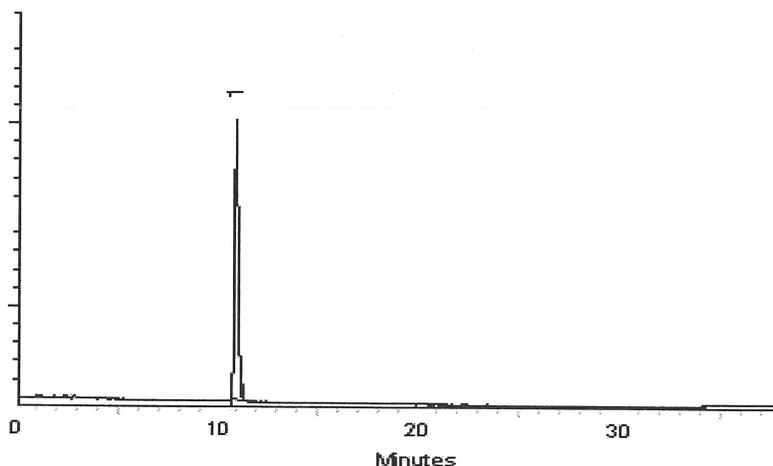
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Kyle Struble
Kylie Struble - Operations Technician I

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 25-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00148



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 Lot No.: A0203257
 Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : October 31, 2026 Storage: 10°C or colder
 Ship: Ambient

CERTIFIED VALUES

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

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

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

Page 70 of 629

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

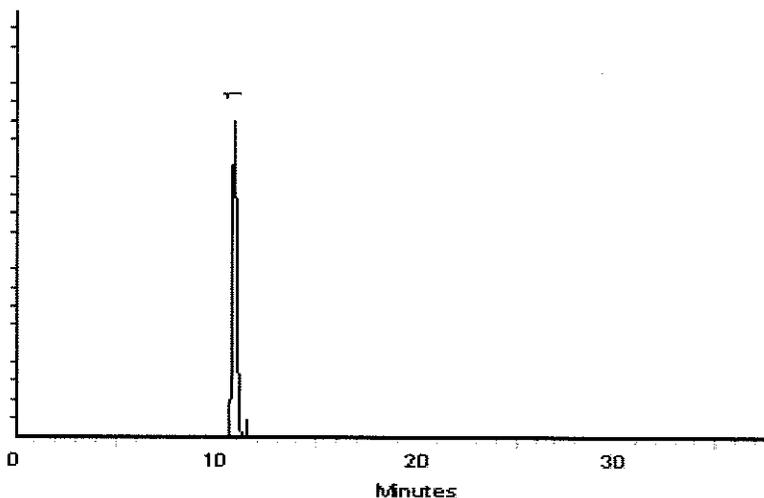
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023 Balance Serial # B442140311

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00150



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 Lot No.: A0203257
 Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : October 31, 2026 Storage: 10°C or colder
 Ship: Ambient

CERTIFIED VALUES

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

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

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

Page 74 of 629

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

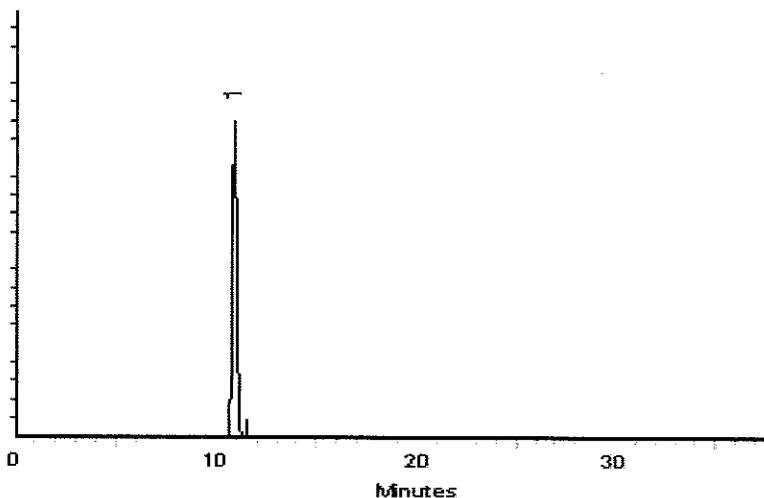
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023 Balance Serial # B442140311

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG1000_00012



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0197032
Description : Nitroglycerin Standard
Nitroglycerin Standard 1,000µg/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	Nitroglycerin	55-63-0	200507JLM	99%	1,006.0 µg/mL	+/- 46.9317

* 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:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00152



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



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.

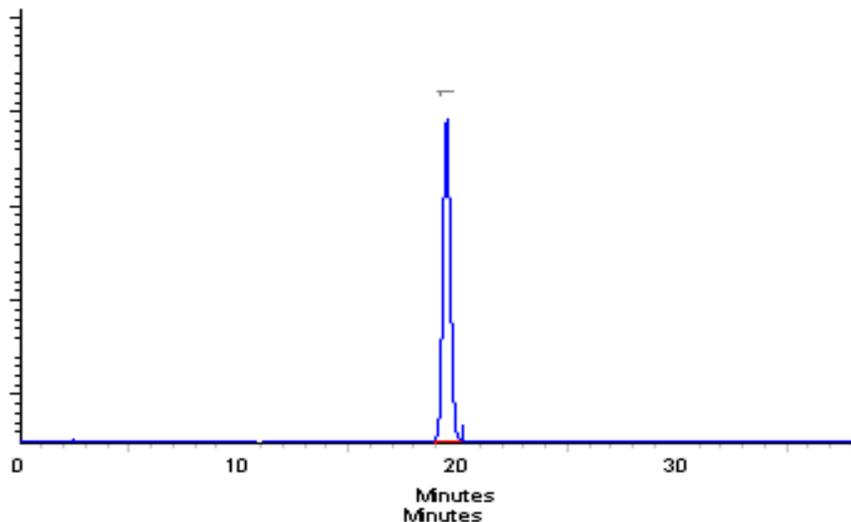
Mobile Phase A:
water:methanol (44:56 V/V)

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
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

ARMQC

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00153



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic



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.

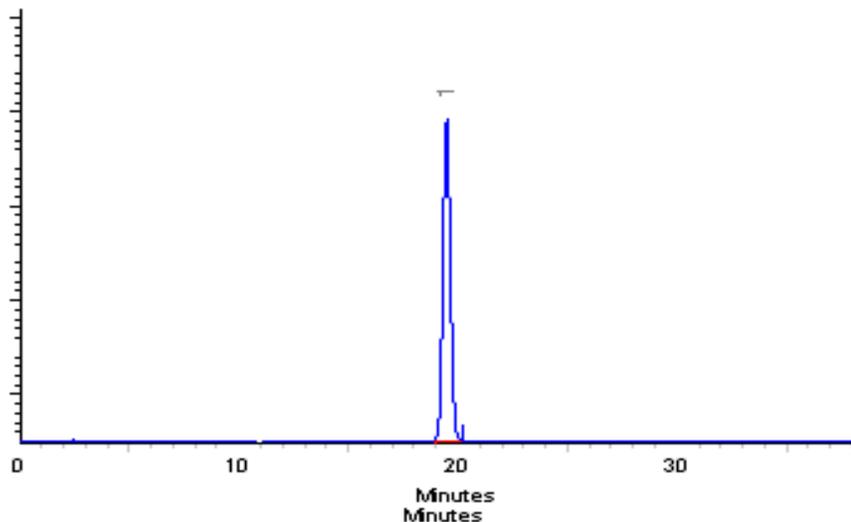
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1 μ l



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
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

ARMQC

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00154



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic



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.

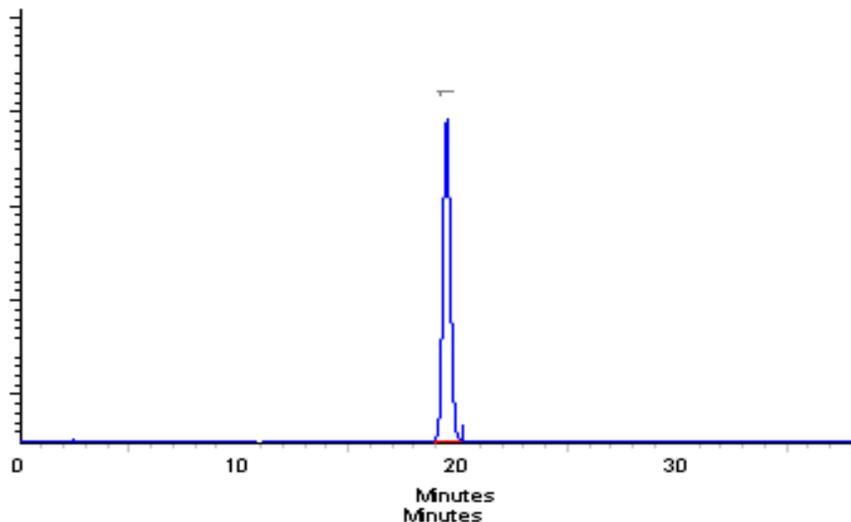
Mobile Phase A:
water:methanol (44:56 V/V)

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
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

ARM-QC

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00156



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



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0205209
Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

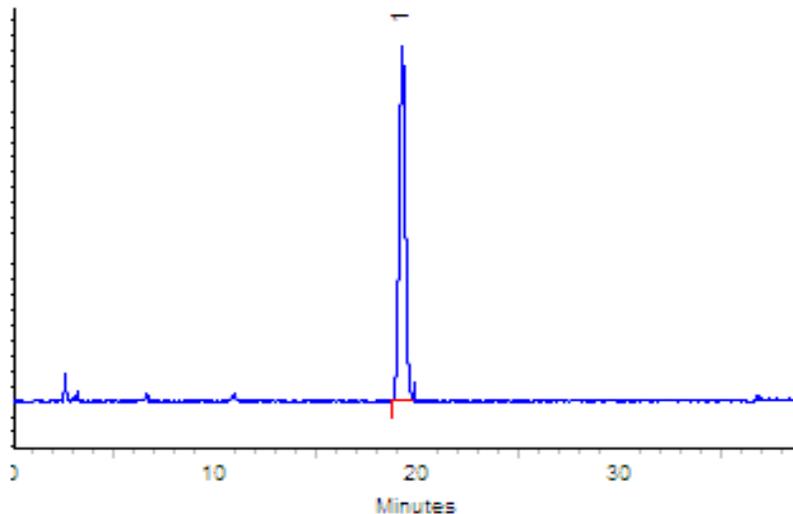
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1 μ l



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

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN1000_00016



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 Lot No.: A0198747
 Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : June 30, 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%	1,003.0 µg/mL	+/- 46.7917

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

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

Page 97 of 629

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/ μ ECD, 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:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

833035DNASTk_00059

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



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

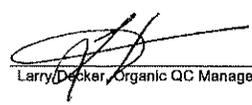
³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

Reagent

8330LCsMix1_00151



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** A0196548
Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

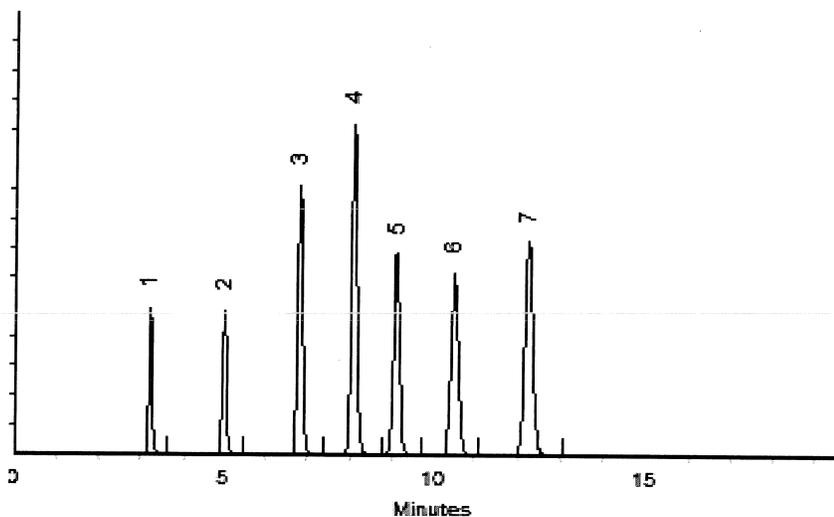
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

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

Date Passed: 05-Apr-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSMix1_00152



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** A0196548
Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

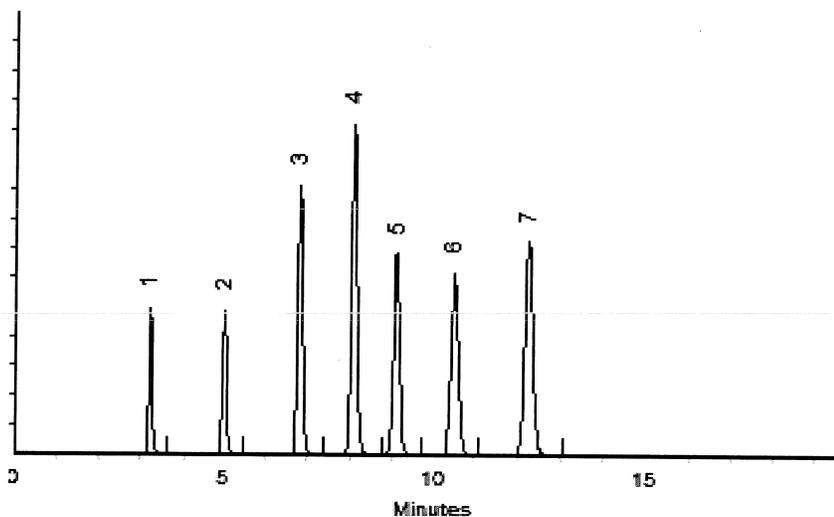
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

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

Date Passed: 05-Apr-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330PASTkPS_00075

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 223041157

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Apr 12, 2023

Expiration: May 12, 2025

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity ³ %	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Picric acid	88-89-1	99.1	100.3	99.4

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

Reagent

8330Surrogate_00155

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR155.D
 Lims ID: 8330Surr155 Inj. Date: 26-Apr-2024 15:49:11
 Worklist ID: 280-0132709-056 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
\$ 10 1,2-Dinitrobenzene	0.5000	0.4971	99.4	83-119

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

280-190264-C-6-A	410-168708-B-13-A	410-168533-E-1-A
410-168533-D-2-A	410-168533-E-3-A	410-168533-D-4-A
410-168533-E-5-A	410-168533-D-6-A	410-168533-E-8-A
410-168533-D-9-A	410-168533-B-10-A	410-168533-C-11-A
410-168533-B-12-A	410-168533-B-13-A	410-168533-B-14-A
410-168533-C-15-A	280-190487-B-1-A	280-190487-B-2-A
280-190487-B-3-A	280-190487-B-4-A	280-190487-B-5-A
280-190487-B-6-A	280-190487-B-7-A	280-190487-B-8-A
280-190487-B-9-A	280-190487-B-10-A	280-190487-B-11-A
280-190487-B-12-A	280-190487-B-13-A	280-190487-B-14-A
280-190487-B-15-A	280-190487-B-16-A	

Reagent

8330SurrStkSS_00310



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 116 of 629

Quality Confirmation Test

5/17/2024
4:54:37 AM

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

Flow Rate:
1.0 ml/min.

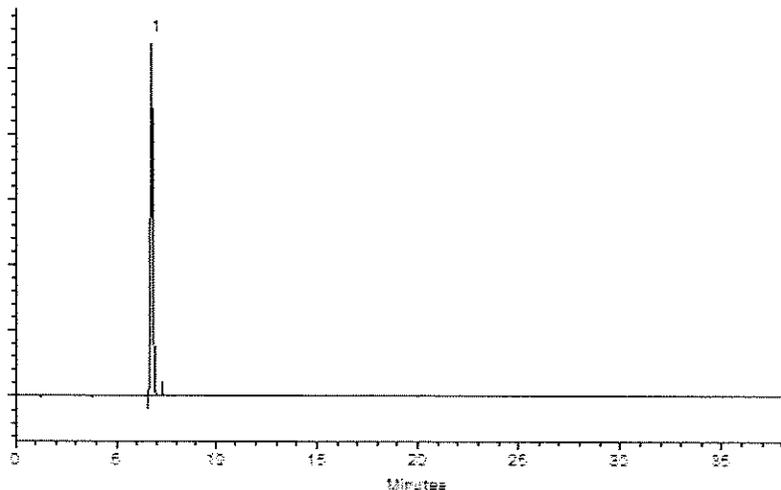
Mobile Phase A:
water:methanol (44:56 V/V)

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: 03-Aug-2023 Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 117 of 629

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00311



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 120 of 629

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:

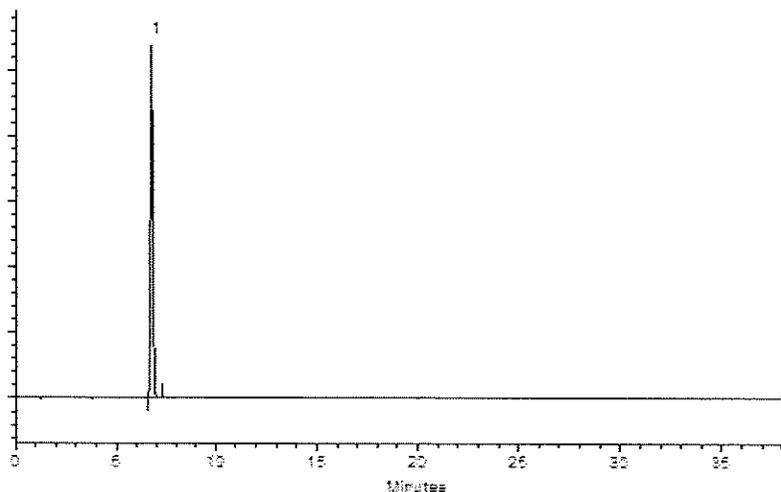
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl

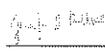


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00312



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 124 of 629

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:**

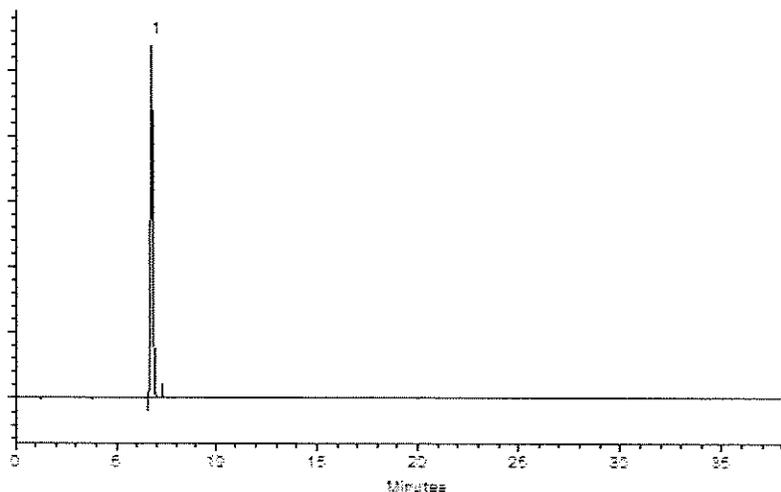
100%A

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: 03-Aug-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00313



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 128 of 629

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:**

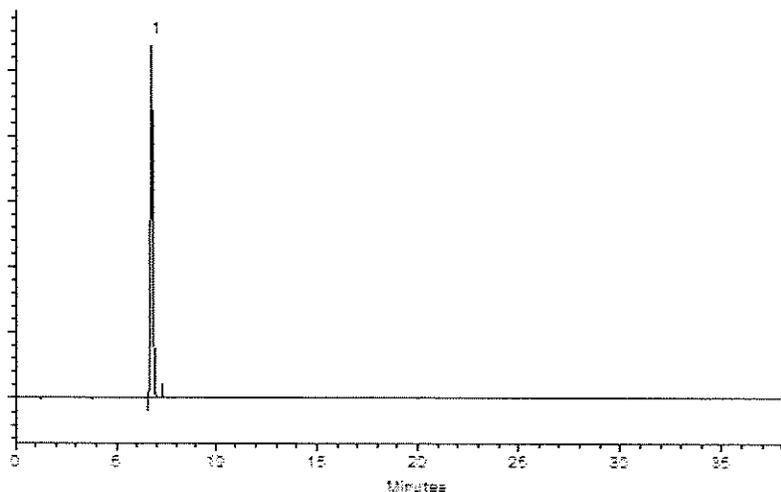
100%A

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: 03-Aug-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-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/ μ ECD, 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:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00314



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 132 of 629

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:**

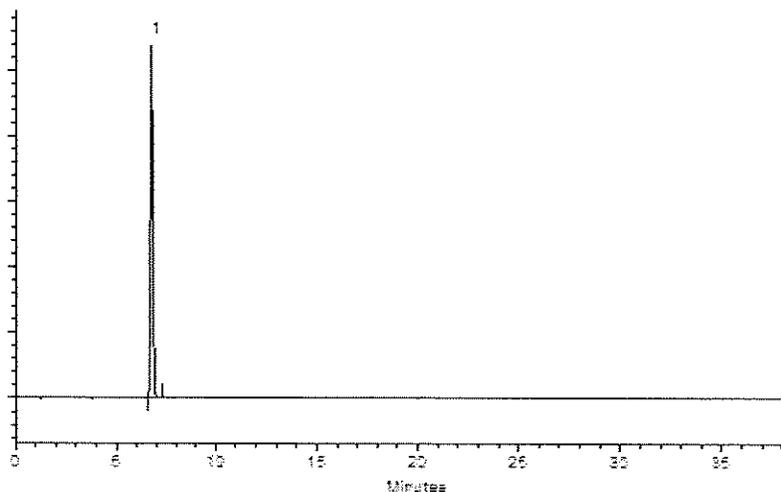
100%A

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: 03-Aug-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-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/ μ ECD, 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:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00315



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 136 of 629

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

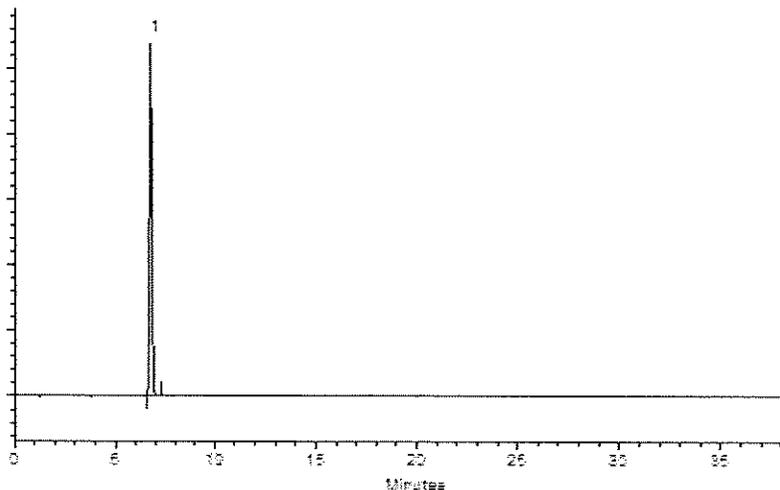
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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

[Signature]
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023 Balance Serial # B707717271

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

Date Passed: 21-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00316



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 140 of 629

Quality Confirmation Test

Column:

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

Flow Rate:

1.0 ml/min.

Mobile Phase A:

water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:

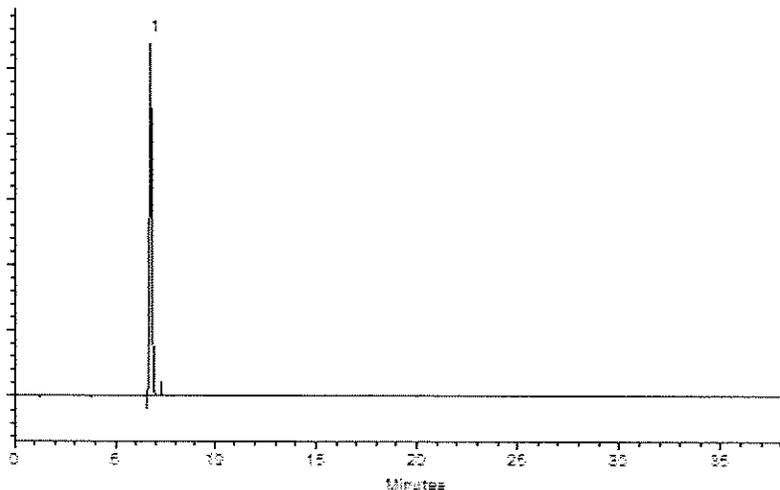
100%A

Det. Type:

Wavelength: 210nm & 254nm

Inj. Vol

2.0µl



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

[Signature]
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023

Balance Serial # B707717271

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

Date Passed: 21-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00317



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



5/17/2024
 4:54:37 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0200577
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

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

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

Page 144 of 629

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:**

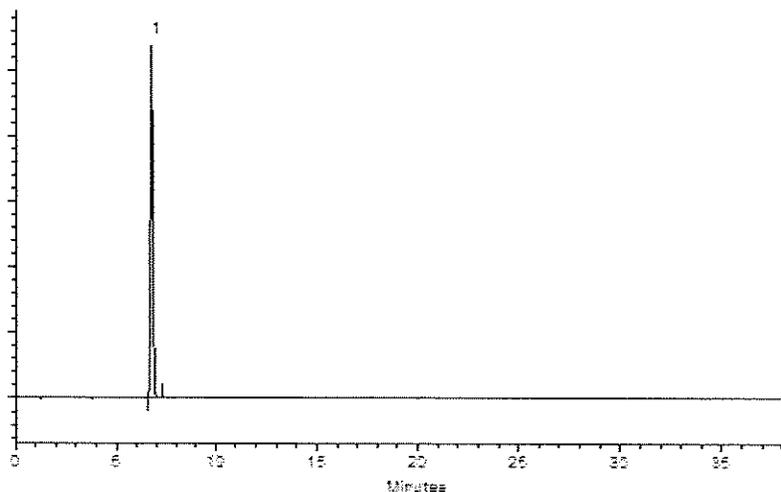
100%A

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: 03-Aug-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00318



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0205460
Description : 8330 Surrogate Mix
 8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

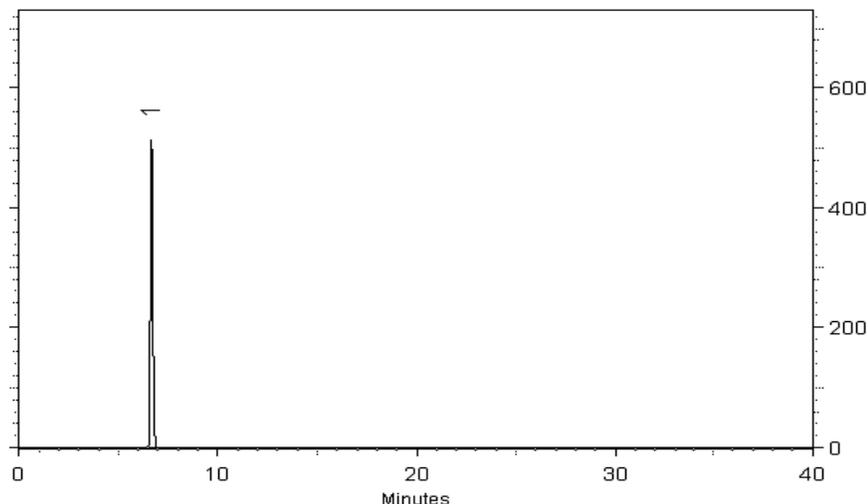
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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


Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00319



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0205460
Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

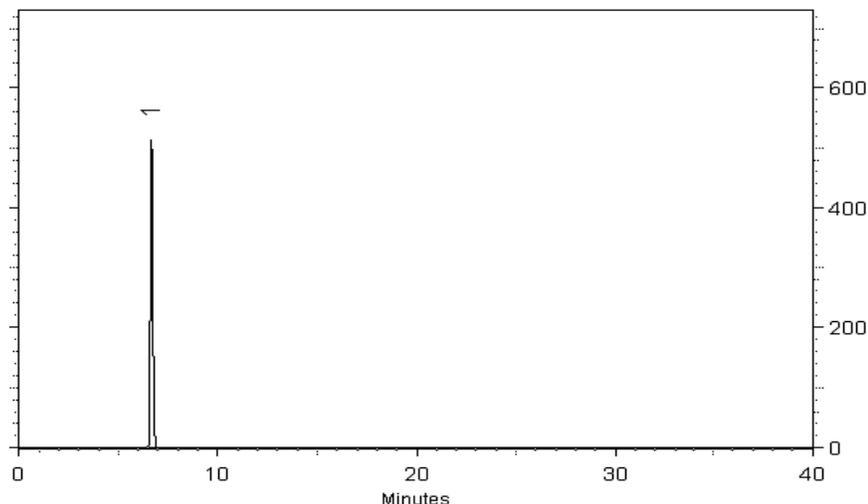
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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

Malina Homan
Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271

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

Date Passed: 19-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStock_00173

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS

Description: 1,2-Dinitrobenzene

Lot: 219051500

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: May 22, 2019

Expiration: May 22, 2029

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



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

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

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

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

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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

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

Certified By: 

Larry Decker, Organic QC Manager

Reagent

IC N03 cal_00030

Certificate of Analysis

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

Lot Number: 1304R00

Product Number: 5459

Manufacture Date: APR 27, 2023

Expiration Date: OCT 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Chloroform	67-66-3	
Potassium Nitrate	7757-79-1	High Purity

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

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

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

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



Heidi J Green (04/27/2023)

Operations Manager

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

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

Reagent

IC NO3 ICV_00020

▪ **Certificate of Analysis** ▪

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

CERTIFICATION

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

▪ Certificate of Analysis ▪

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

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

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

Where:

U_{expanded} = Expanded uncertainty.

k = Coverage factor.

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

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

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

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

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

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

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

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

5. **Storage:** 20-25°C

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

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

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

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

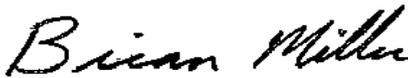
If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck



ISO 17034:2016



ISO/IEC 17025:2017



Reagent

MNX , TNX , DNX _ 00092

Reference Material Certificate
Product Information Sheet

Product Name: Custom Standard

Lot Number: 0006744504

Product Number: CUS-23984

Lot Issue Date: 17-May-2023

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

Expiration Date: 30-Jun-2024

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.4 ±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.2 ±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.9 ±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

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

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

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

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

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

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative

Reagent

NH3 CAL STD_00036

Certificate of Analysis

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

Lot Number: 2312G14

Product Number: 5455

Manufacture Date: DEC 22, 2023

Expiration Date: JUN 2025

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

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

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.3)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months
5455-4	120 mL natural poly	18 months

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



Jose Pena (12/22/2023)

Operations Manager

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

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

Reagent

NH3 ICV STD_00034

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

Assay Information:

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

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

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

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

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

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

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

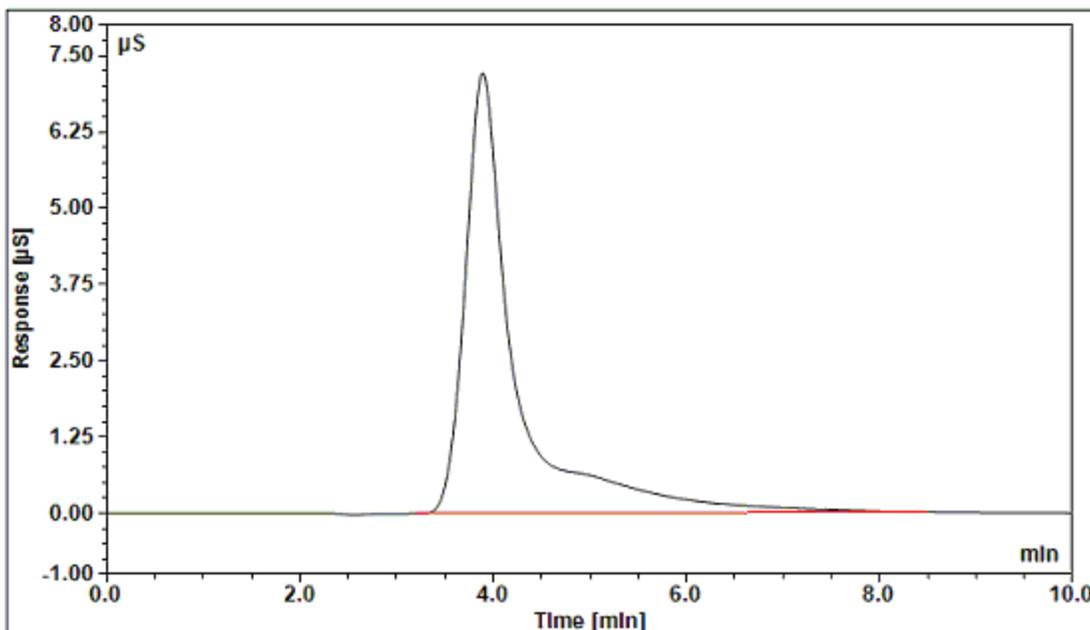
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	Eluent:	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	Eluent Flow Rate:	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	Column Temp:	30°C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	Cell Temp:	35°C
Suppressor Current/ Chemical Suppressant:	8 mA	Scale X-Axis:	minutes
		Scale Y-Axis:	8 µS/cm
		Concentration:	10 µg/g

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 25, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 25, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Reagent

NO2 Cal std_00040

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO₂)

Lot Number: 4310M18

Product Number: 5461

Manufacture Date: OCT 20, 2023

Expiration Date: APR 2024

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS
Chloroform	67-66-3	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1005 ppm N	8040

Specification	Reference
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO ₂ -N)	ASTM (D 3867 A)
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO ₂ -N)	ASTM (D 3867 B)
Stock Nitrite Solution: 1 mL = 1.0 mg NO ₂ -N	EPA (353.2)
Stock Nitrite Solution: 1.0 mL = 1.00 mg NO ₂ -N	EPA (353.3)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5461-16	500 mL natural poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Paul Brandon (10/20/2023)

Production Manager

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

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

Reagent

PicricARestek_00124



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31499 _____ **Lot No.:** A0195778 _____
Description : Picric Acid Standard _____
 Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX
 REQUIRED* SHIP FED EX GROUND ONLY
Container Size : 2 mL _____ **Pkg Amt:** > 1 mL _____
Expiration Date : March 31, 2028 _____ **Storage:** 10°C or colder _____
Ship: Ambient _____

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

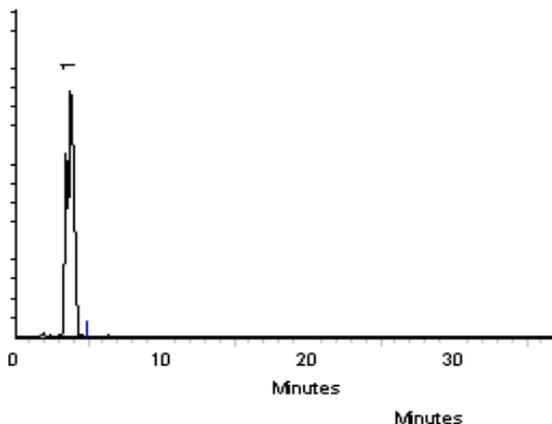
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
0.2µl



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

Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023

Balance Serial # 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Mar-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190903-1

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-015-240401-G W	280-190903-2	96 M	
FBQmw-173-240401-G W	280-190903-4		94 M
FBQmw-173-240401-G W	280-190903-4	94 M	
FBQmw-173-240402-G W	280-190903-5		87 M
FBQmw-173-240402-G W	280-190903-5	85 M	
	MB 280-652546/1-A	83 M	
	LCS 280-652546/2-A	95 M	
	LCSD 280-652546/3-A	94 M	

12DNB = 1,2-Dinitrobenzene

QC LIMITS
83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 05090012.D
 Lab ID: LCS 280-652546/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	1.95	98	73-125	M
1,3-Dinitrobenzene	2.00	1.81	91	78-120	
2,4,6-Trinitrotoluene	2.00	1.80	90	71-123	
2,4-Dinitrotoluene	2.00	1.68	84	78-120	
2,6-Dinitrotoluene	2.00	1.70	85	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.72	86	79-120	
2-Nitrotoluene	2.00	1.39	70	70-127	
3-Nitrotoluene	2.00	1.30	65	73-125	Q M
4-Amino-2,6-dinitrotoluene	2.00	1.75	88	76-125	
4-Nitrotoluene	2.00	1.33	66	71-127	Q
HMX	2.00	1.75	88	65-135	
Nitrobenzene	2.00	1.62	81	65-134	
Nitroglycerin	20.0	19.7	99	74-127	
PETN	20.0	20.0	100	73-127	
RDX	2.00	1.78	89	68-130	
Tetryl	2.00	1.71	85	64-128	

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.: 280-190903-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 05090013.D
 Lab ID: LCSD 280-652546/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3,5-Trinitrobenzene	2.00	1.93	96	1	20	73-125	M
1,3-Dinitrobenzene	2.00	1.77	89	2	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.75	88	3	20	71-123	
2,4-Dinitrotoluene	2.00	1.63	82	3	20	78-120	
2,6-Dinitrotoluene	2.00	1.66	83	3	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.68	84	2	20	79-120	
2-Nitrotoluene	2.00	1.34	67	3	20	70-127	Q
3-Nitrotoluene	2.00	1.27	64	2	20	73-125	Q M
4-Amino-2,6-dinitrotoluene	2.00	1.71	86	2	20	76-125	
4-Nitrotoluene	2.00	1.30	65	2	20	71-127	Q
HMX	2.00	1.76	88	1	20	65-135	
Nitrobenzene	2.00	1.58	79	2	20	65-134	
Nitroglycerin	20.0	19.8	99	0	20	74-127	
PETN	20.0	20.0	100	0	20	73-127	
RDX	2.00	1.77	89	0	20	68-130	
Tetryl	2.00	1.72	86	1	20	64-128	

Column to be used to flag recovery and RPD values

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: MB 280-652546/1-A
 Matrix: Water Date Extracted: 05/08/2024 13:50
 Lab File ID: (1) 05090011.D Lab File ID: (2) _____
 Date Analyzed: (1) 05/09/2024 17:29 Date Analyzed: (2) _____
 Instrument ID: (1) CHHPLC_X3 Instrument ID: (2) CHHPLC_G2_LUNA
 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 280-652546/2-A	05/09/2024 17:52	
	LCSD 280-652546/3-A	05/09/2024 18:15	
FWGmw-015-240401-GW	280-190903-2	05/09/2024 18:38	
FBQmw-173-240401-GW	280-190903-4	05/09/2024 19:01	05/10/2024 00:28
FBQmw-173-240402-GW	280-190903-5	05/09/2024 19:24	05/10/2024 01:04

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240401-GW Lab Sample ID: 280-190903-4
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_G2_LUNA
 Date Analyzed (1): 05/09/2024 19:01 Date Analyzed (2): 05/10/2024 00:28
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		10.88	10.78	10.98	0.079		24.0
	2		22.69	22.47	22.77	0.062		
4-Amino-2,6-dinitrotoluene	1		11.06	10.96	11.16	1.2		17.8
	2		16.11	15.93	16.23	1.5		
2-Amino-4,6-dinitrotoluene	1		11.31	11.21	11.41	0.94		28.8
	2		16.91	16.73	17.03	1.3		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240402-GW Lab Sample ID: 280-190903-5
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_G2_LUNA
 Date Analyzed (1): 05/09/2024 19:24 Date Analyzed (2): 05/10/2024 01:04
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4-Amino-2,6-dinitrotoluene	1		11.05	10.96	11.16	1.1		0.8
	2		16.11	15.93	16.23	1.1		
2-Amino-4,6-dinitrotoluene	1		11.31	11.21	11.41	0.84		22.5
	2		16.91	16.73	17.03	1.1		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FWGmw-015-240401-GW Lab Sample ID: 280-190903-2
 Matrix: Water Lab File ID: 05090014.D
 Analysis Method: 8330B Date Collected: 05/01/2024 10:15
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 462.2(mL) Date Analyzed: 05/09/2024 18:38
 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.: 652806 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U Q M	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.095
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.22	U	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090014.D
 Lims ID: 280-190903-B-2-A
 Client ID: FWGmw-015-240401-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 18:38:18 ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-2-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:01:41

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.610			ND	
8 RDX	1		7.624			ND	
\$ 10 1,2-Dinitrobenzene	1	8.562	8.557	0.005	25302	0.1915	M
11 1,3,5-Trinitrobenzene	1		8.697			ND	
12 1,3-Dinitrobenzene	1		9.310			ND	
13 Nitrobenzene	1		9.663			ND	
15 Tetryl	1		9.977			ND	
16 Nitroglycerin	2		10.443			ND	
17 2,4,6-Trinitrotoluene	1		10.877			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.057			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.310			ND	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	
22 o-Nitrotoluene	1	12.388	12.397	-0.009	506	0.003913	7M
23 p-Nitrotoluene	1		12.817			ND	
24 m-Nitrotoluene	1		13.363			ND	
25 PETN	2		14.403			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Report Date: 10-May-2024 12:45:13

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090014.d

Injection Date: 09-May-2024 18:38:18

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-190903-B-2-A

Lab Sample ID: 280-190903-2

Worklist Smp#: 14

Client ID: FWGmw-015-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

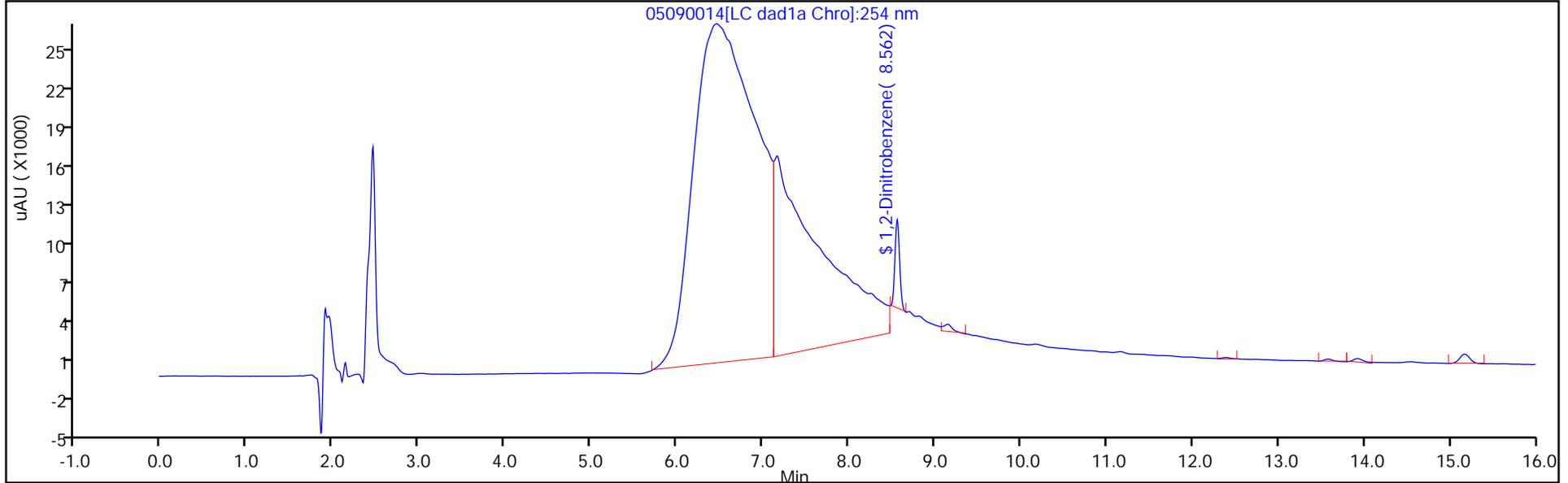
ALS Bottle#: 14

Method: 8330_X3

Limit Group: GCSV - 8330

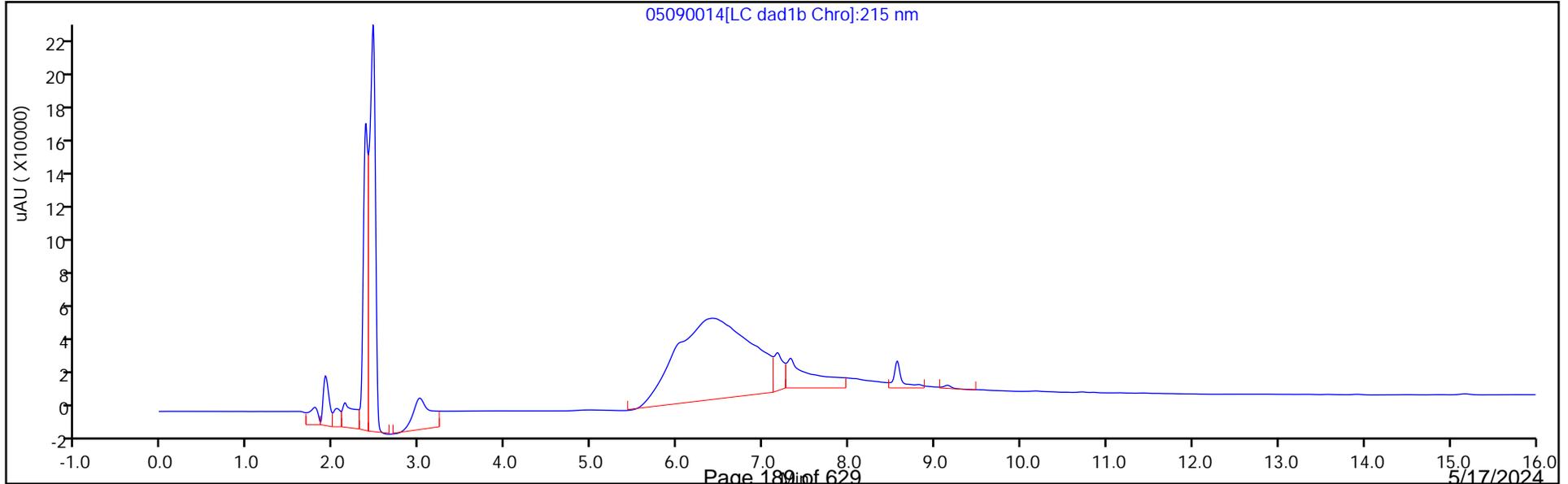
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090014.D
 Lims ID: 280-190903-B-2-A
 Client ID: FWGmw-015-240401-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 18:38:18 ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-2-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:01:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1915	95.75

Eurofins Denver

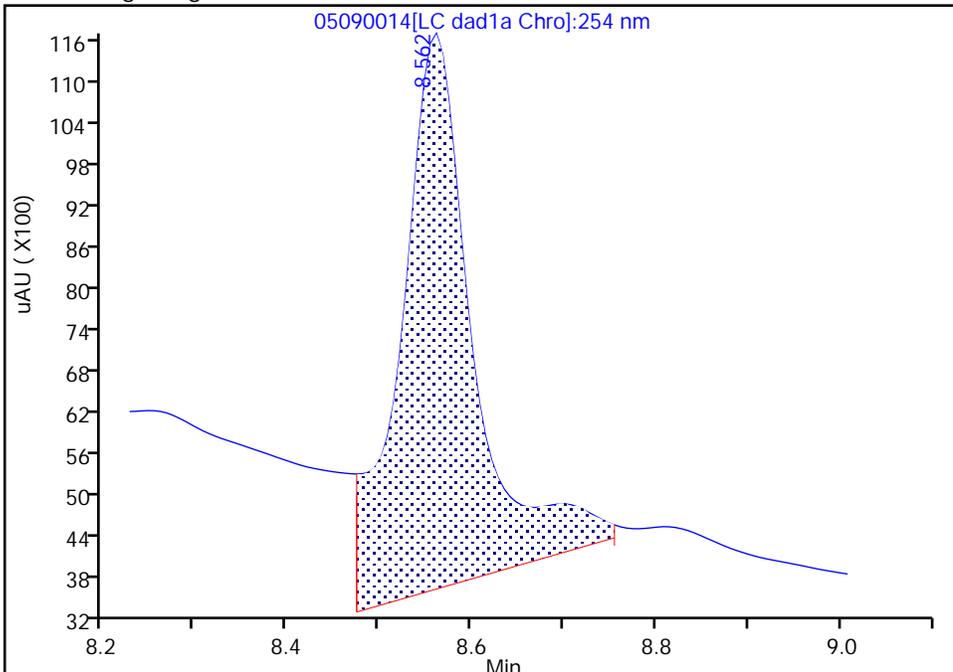
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090014.d		
Injection Date:	09-May-2024 18:38:18	Instrument ID:	CHHPLC_X3
Lims ID:	280-190903-B-2-A	Lab Sample ID:	280-190903-2
Client ID:	FWGmw-015-240401-GW		
Operator ID:	JZ	ALS Bottle#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm
		Worklist Smp#:	14

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

Signal: 1

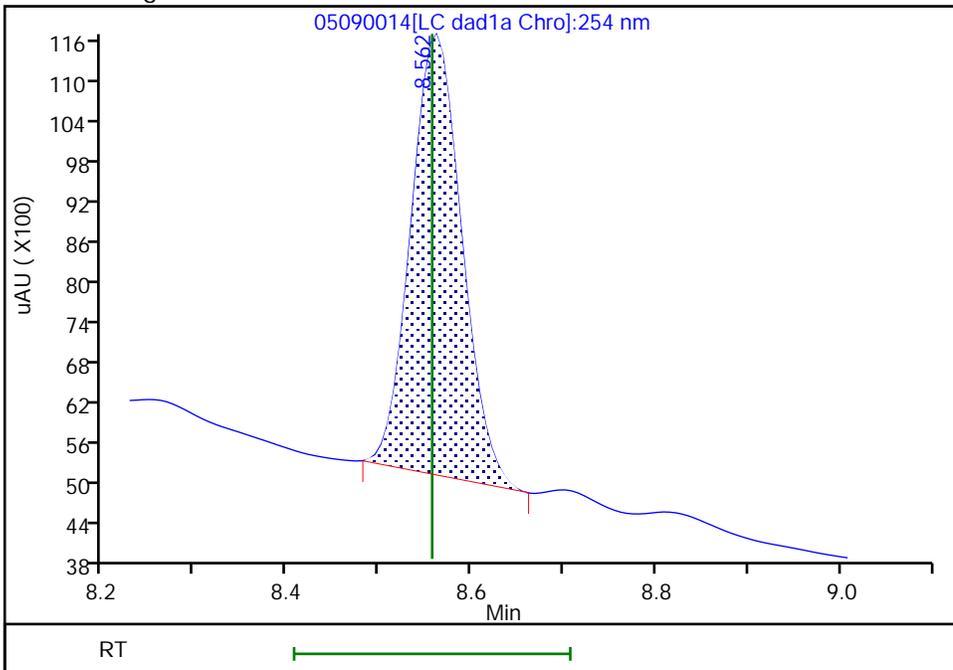
RT: 8.56
 Area: 44414
 Amount: 0.336701
 Amount Units: ug/mL

Processing Integration Results



RT: 8.56
 Area: 25302
 Amount: 0.191507
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:01:34 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

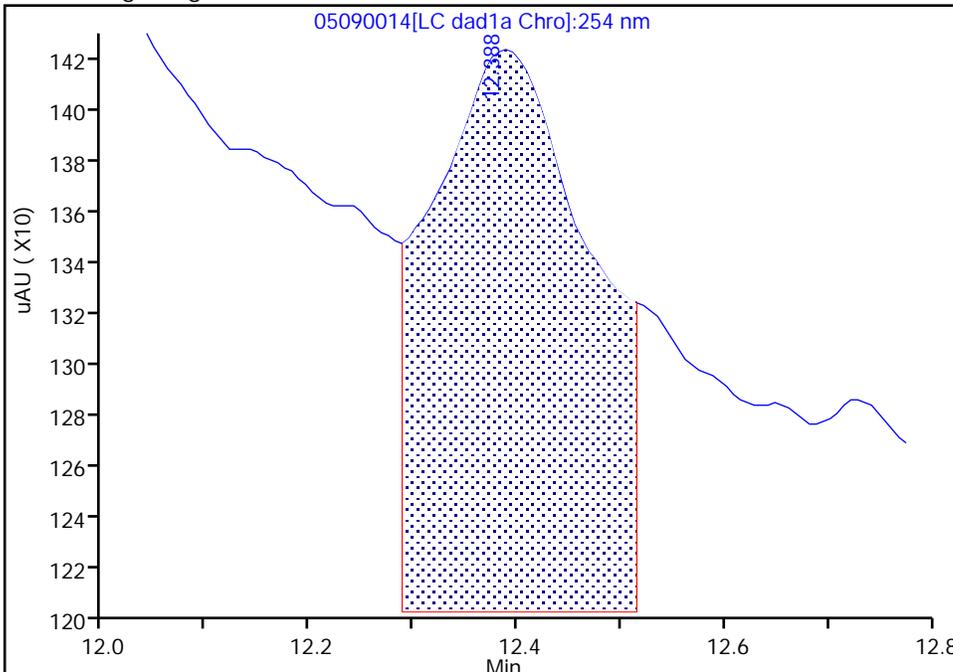
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090014.d
Injection Date: 09-May-2024 18:38:18 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-B-2-A Lab Sample ID: 280-190903-2
Client ID: FWGmw-015-240401-GW
Operator ID: JZ ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

22 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

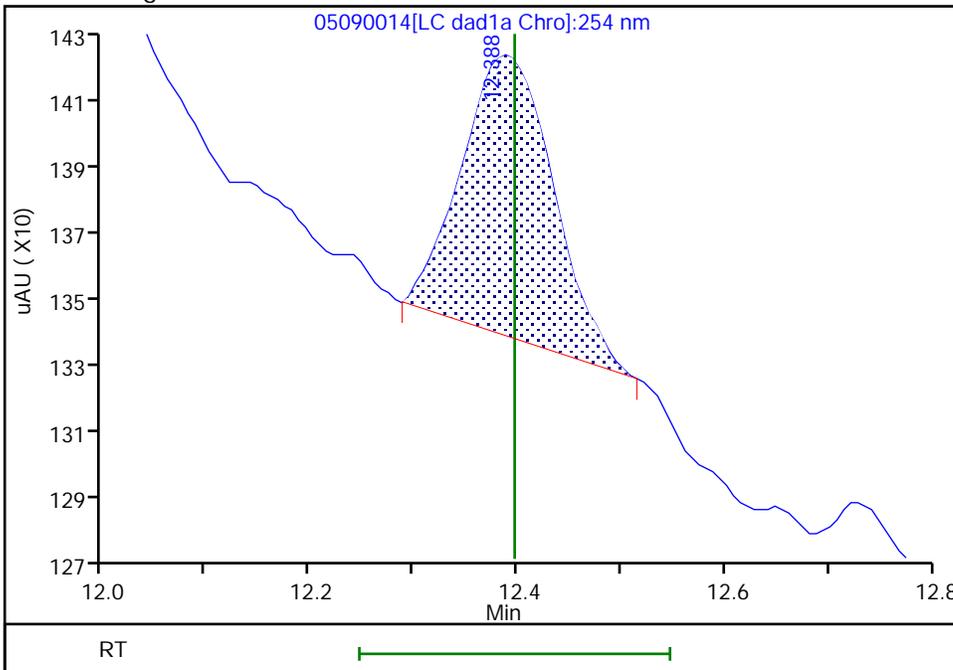
RT: 12.39
Area: 2220
Amount: 0.017169
Amount Units: ug/mL

Processing Integration Results



RT: 12.39
Area: 506
Amount: 0.003913
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:01:38 -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.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240401-GW Lab Sample ID: 280-190903-4
 Matrix: Water Lab File ID: 05090015.D
 Analysis Method: 8330B Date Collected: 05/01/2024 14:45
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 481.1(mL) Date Analyzed: 05/09/2024 19:01
 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.: 652806 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	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.079	J	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.94		0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U Q	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.36	U Q	0.42	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.2		0.16	0.12	0.060
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	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.46
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.033

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090015.D
 Lims ID: 280-190903-A-4-A
 Client ID: FBQmw-173-240401-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 19:01:15 ALS Bottle#: 15 Worklist Smp#: 15
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-A-4-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:47:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.610			ND	
8 RDX	1	7.625	7.624	0.001	1335	0.0121	M
\$ 10 1,2-Dinitrobenzene	1	8.558	8.557	0.001	24777	0.1875	M
11 1,3,5-Trinitrobenzene	1		8.697			ND	
12 1,3-Dinitrobenzene	1		9.310			ND	
13 Nitrobenzene	1		9.663			ND	
15 Tetryl	1		9.977			ND	U
16 Nitroglycerin	2		10.443			ND	
17 2,4,6-Trinitrotoluene	1	10.878	10.877	0.001	1641	0.007626	
18 4-Amino-2,6-dinitrotoluene	1	11.058	11.057	0.001	17721	0.1182	
19 2-Amino-4,6-dinitrotoluene	1	11.311	11.310	0.001	18035	0.0903	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	
22 o-Nitrotoluene	1		12.397			ND	7
23 p-Nitrotoluene	1		12.817			ND	
24 m-Nitrotoluene	1		13.363			ND	
25 PETN	2		14.403			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 10-May-2024 12:45:14

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090015.d

Injection Date: 09-May-2024 19:01:15

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-190903-A-4-A

Lab Sample ID: 280-190903-4

Worklist Smp#: 15

Client ID: FBQmw-173-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

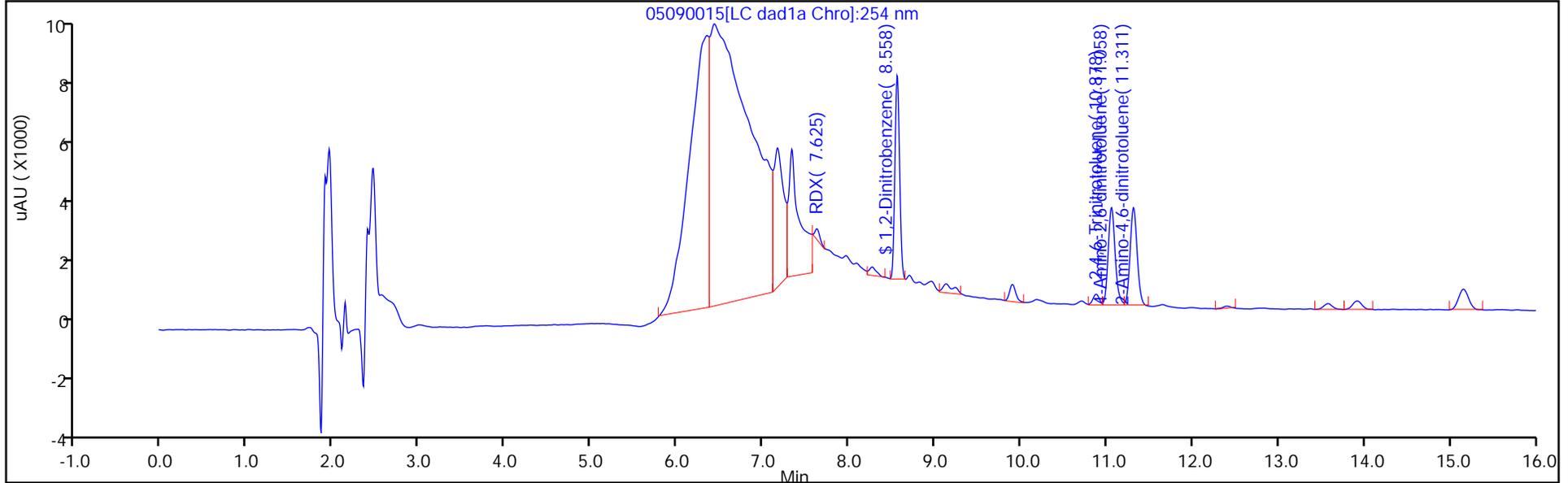
ALS Bottle#: 15

Method: 8330_X3

Limit Group: GCSV - 8330

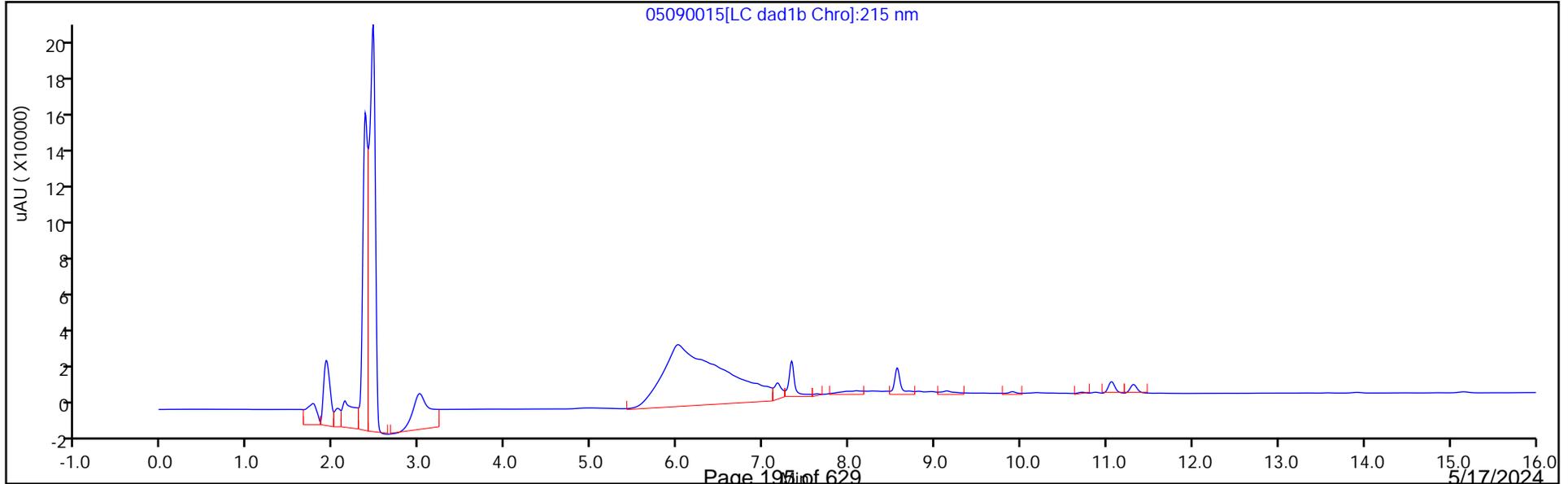
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090015.D
 Lims ID: 280-190903-A-4-A
 Client ID: FBQmw-173-240401-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 19:01:15 ALS Bottle#: 15 Worklist Smp#: 15
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-A-4-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:47:25

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1875	93.76

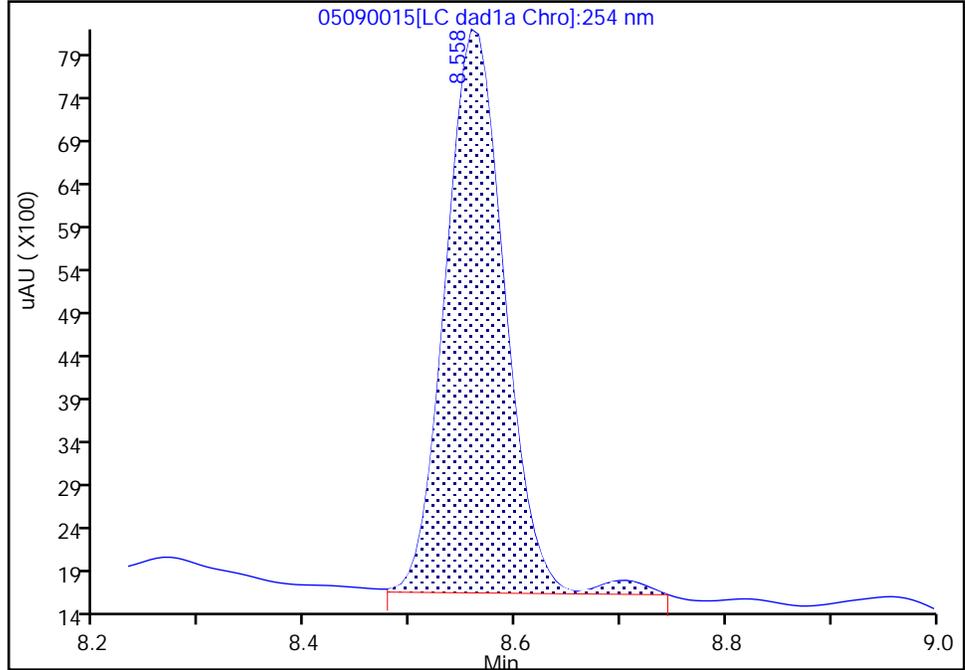
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090015.d
Injection Date: 09-May-2024 19:01:15 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

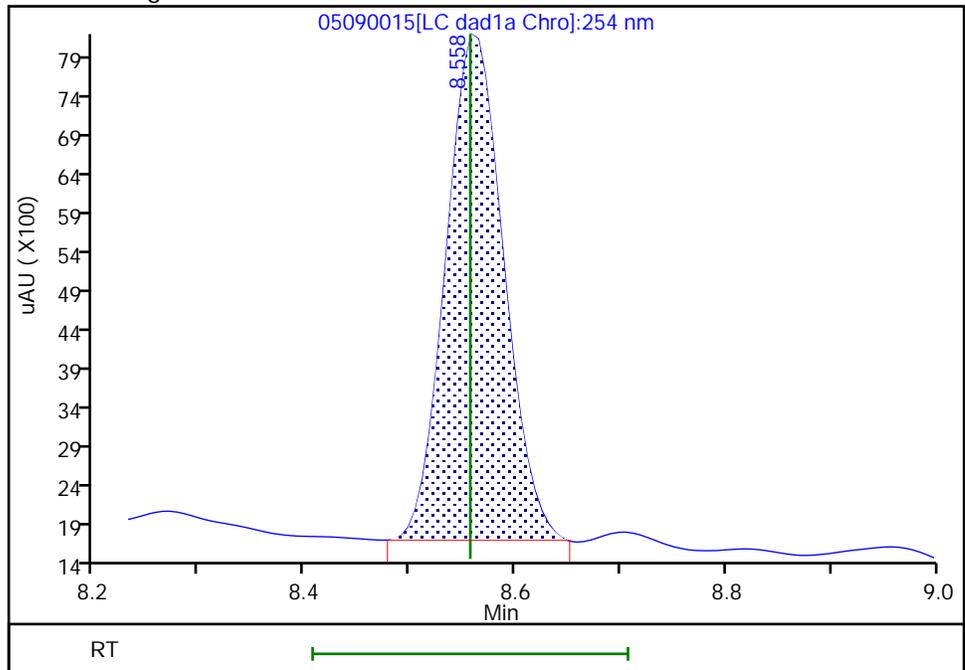
RT: 8.56
Area: 25648
Amount: 0.194136
Amount Units: ug/mL

Processing Integration Results



RT: 8.56
Area: 24777
Amount: 0.187519
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:28:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

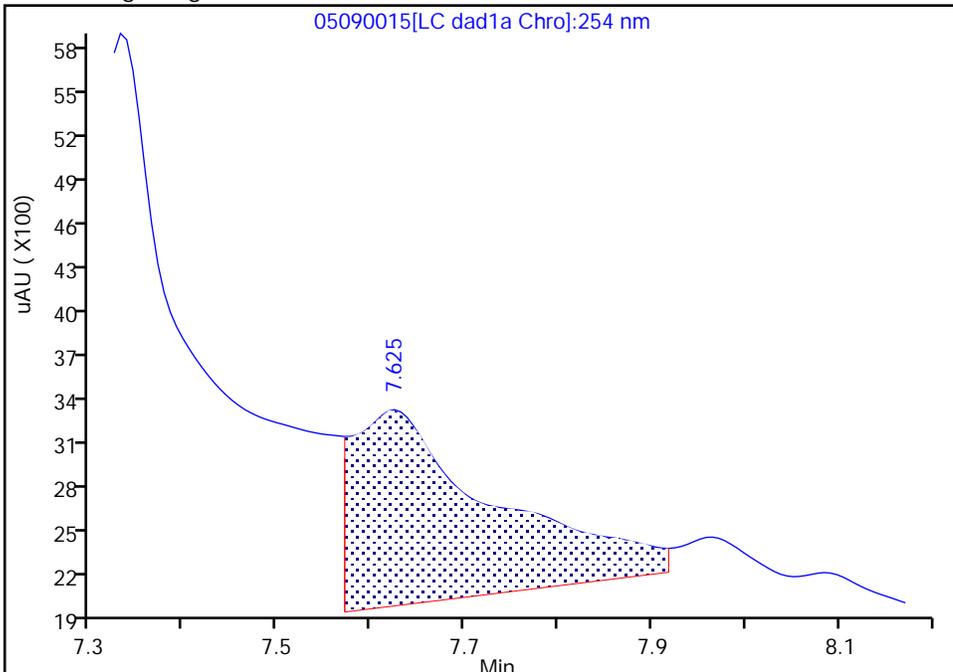
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090015.d
Injection Date: 09-May-2024 19:01:15 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

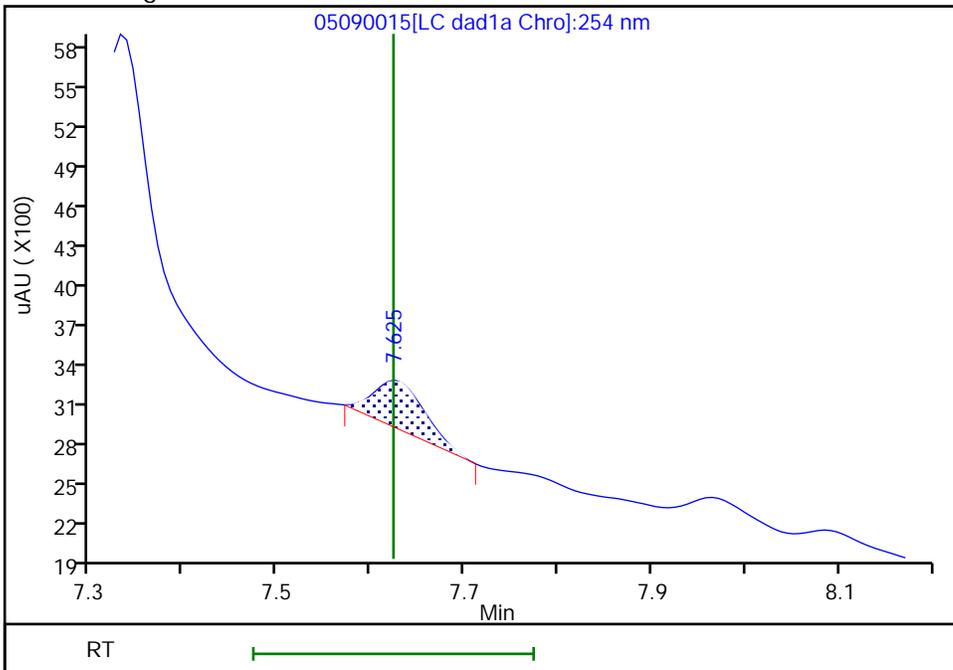
RT: 7.62
Area: 13830
Amount: 0.124857
Amount Units: ug/mL

Processing Integration Results



RT: 7.62
Area: 1335
Amount: 0.012052
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:28:20 -06:00:00 (UTC)

Audit Action: Manually Integrated

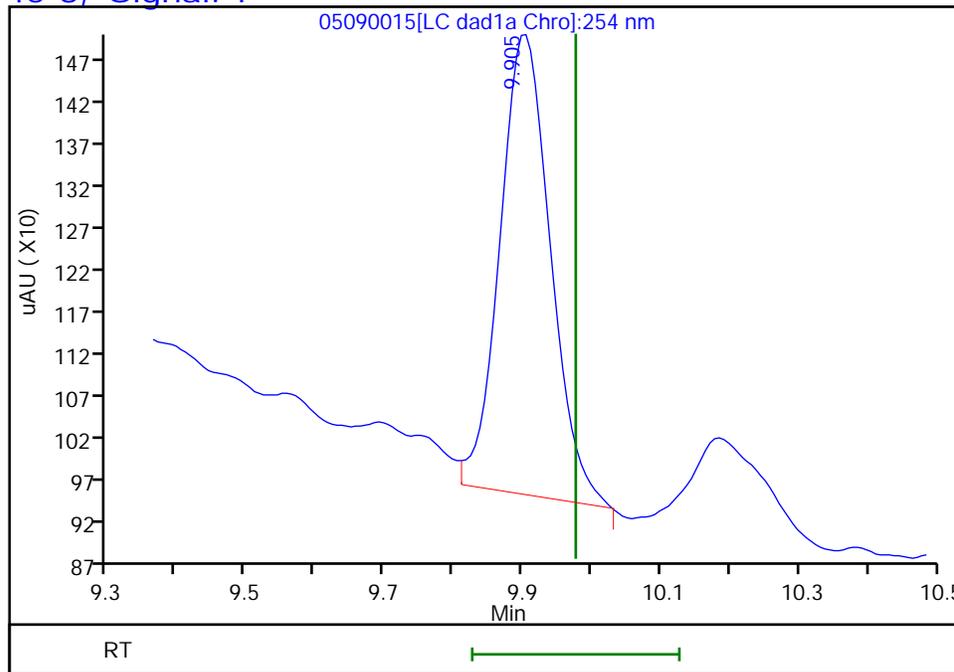
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090015.d
Injection Date: 09-May-2024 19:01:15 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 9.90
Response: 2797
Amount: 0.015403



Reviewer: LV5D, 09-May-2024 19:47:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240401-GW Lab Sample ID: 280-190903-4
 Matrix: Water Lab File ID: 05090019.D
 Analysis Method: 8330B Date Collected: 05/01/2024 14:45
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 481.1(mL) Date Analyzed: 05/10/2024 00:28
 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.: 652810 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	0.21	U	0.22	0.21	0.054

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\G2_LUNA\20240509-133213.b\05090019.D
 Lims ID: 280-190903-A-4-A
 Client ID: FBQmw-173-240401-GW
 Sample Type: Client
 Inject. Date: 10-May-2024 00:28:27 ALS Bottle#: 19 Worklist Smp#: 19
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-A-4-A
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:48 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 14:53:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.637			ND	
8 RDX	1		8.844			ND	7
9 Nitrobenzene	1		11.330			ND	
\$ 10 1,2-Dinitrobenzene	1	12.241	12.224	0.017	48740	0.1884	M
12 1,3-Dinitrobenzene	1		14.350			ND	7
13 Nitroglycerin	2		14.804			ND	U
14 o-Nitrotoluene	1		15.377			ND	
15 p-Nitrotoluene	1		15.610			ND	U
16 4-Amino-2,6-dinitrotoluene	1	16.107	16.077	0.030	38830	0.1413	M
17 m-Nitrotoluene	1		16.437			ND	
18 2-Amino-4,6-dinitrotoluene	1	16.907	16.877	0.030	48898	0.1206	M
19 1,3,5-Trinitrobenzene	1		17.130			ND	
20 2,6-Dinitrotoluene	1		18.184			ND	
21 2,4-Dinitrotoluene	1		18.637			ND	U
22 Tetryl	1		21.751			ND	
23 2,4,6-Trinitrotoluene	1	22.687	22.624	0.063	2396	0.005994	M
24 PETN	2		23.751			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 10-May-2024 16:36:53

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d

Injection Date: 10-May-2024 00:28:27

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ

Lims ID: 280-190903-A-4-A

Lab Sample ID: 280-190903-4

Worklist Smp#: 19

Client ID: FBQmw-173-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

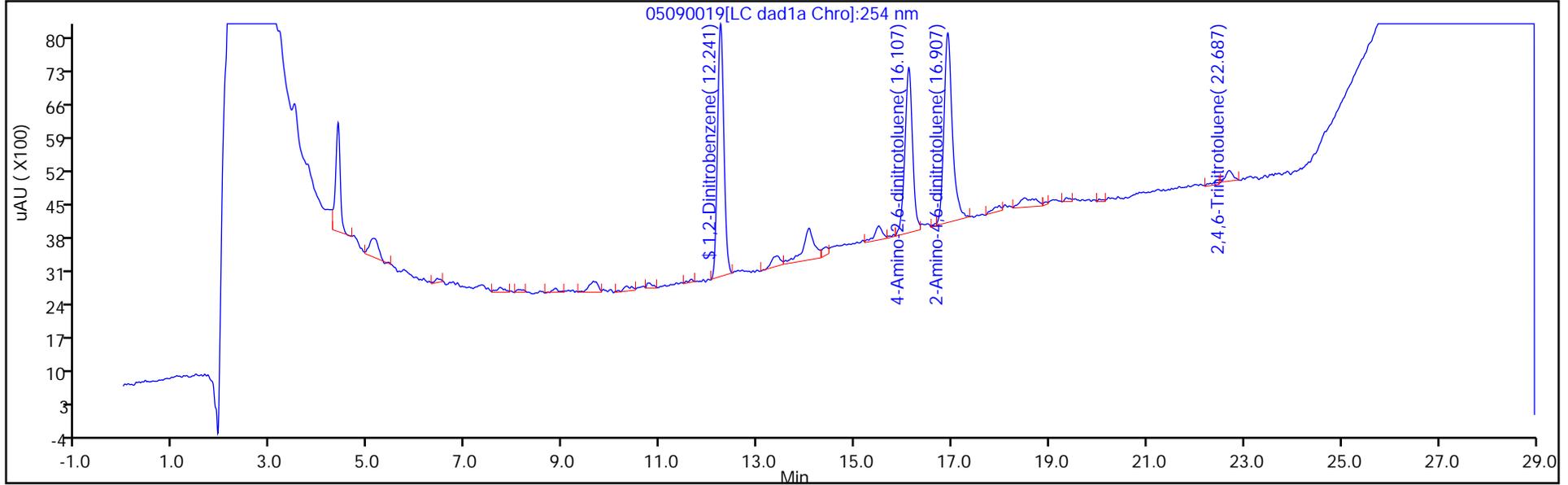
ALS Bottle#: 19

Method: G2_8330_Luna

Limit Group: GCSV - 8330

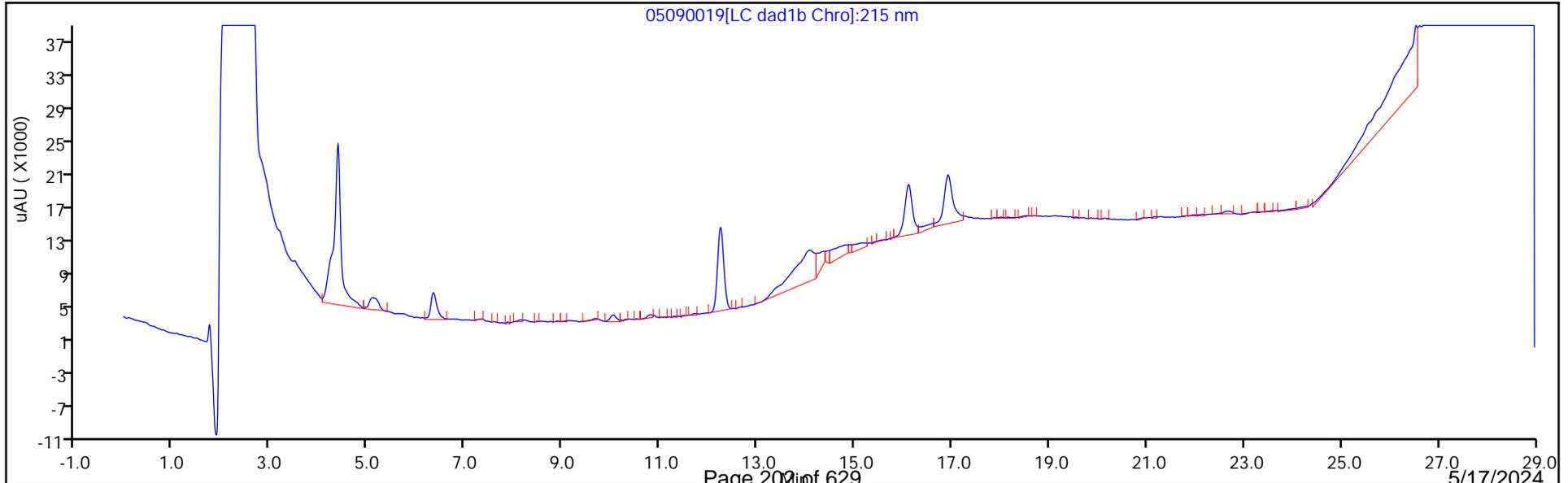
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest 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\G2_LUNA\20240509-133213.b\05090019.D
 Lims ID: 280-190903-A-4-A
 Client ID: FBQmw-173-240401-GW
 Sample Type: Client
 Inject. Date: 10-May-2024 00:28:27 ALS Bottle#: 19 Worklist Smp#: 19
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-A-4-A
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:48 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 14:53:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1884	94.21

Eurofins Denver

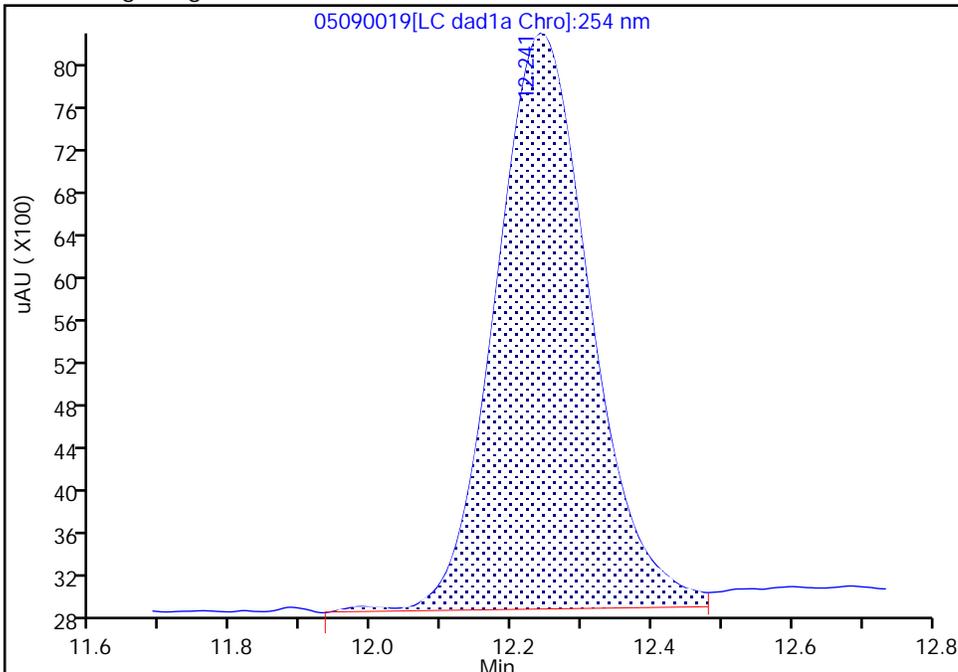
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

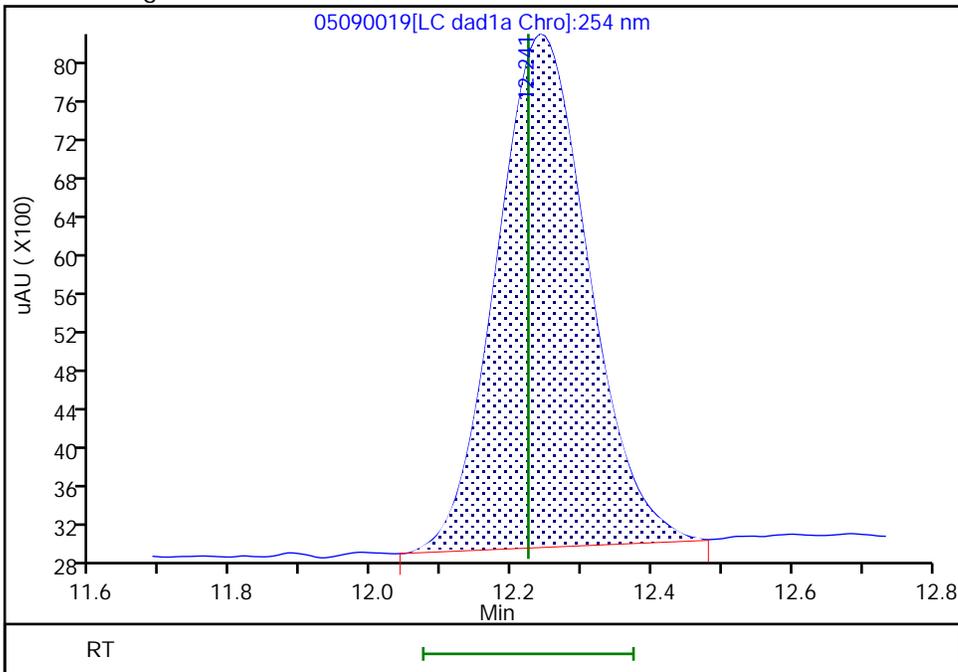
Processing Integration Results

RT: 12.24
Area: 51290
Amount: 0.198269
Amount Units: ug/ml



Manual Integration Results

RT: 12.24
Area: 48740
Amount: 0.188412
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 14:53:01 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

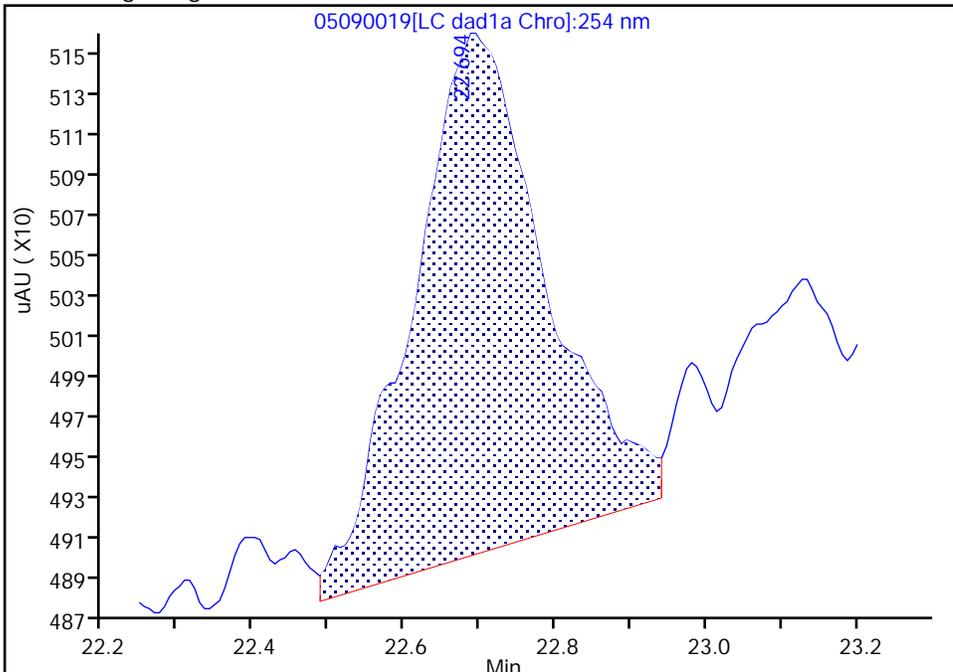
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

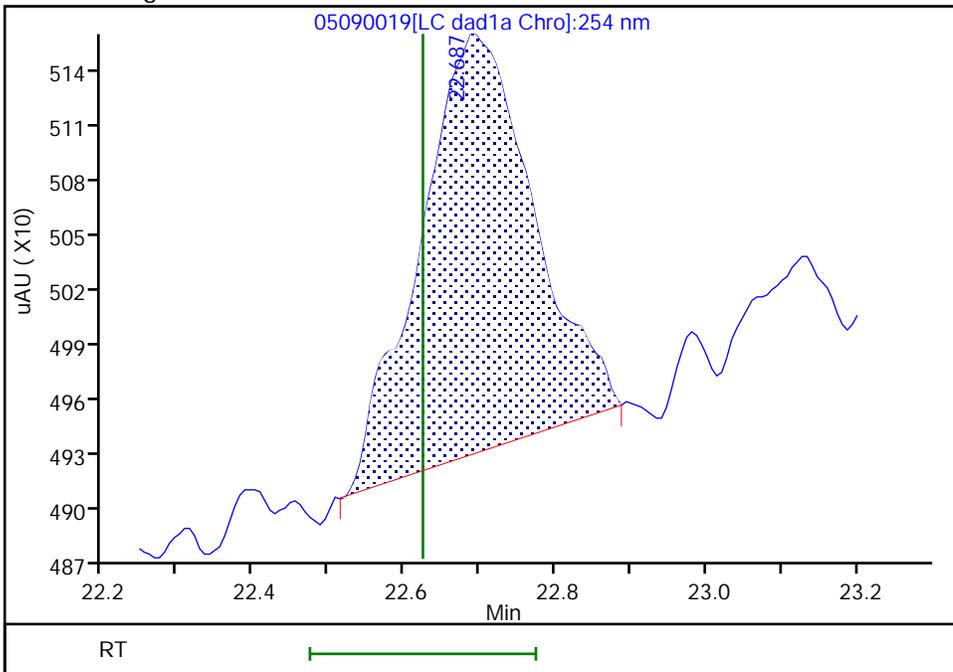
RT: 22.69
Area: 3142
Amount: 0.007860
Amount Units: ug/ml

Processing Integration Results



RT: 22.69
Area: 2396
Amount: 0.005994
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 14:52:43 -06:00:00 (UTC)

Audit Action: Manually Integrated

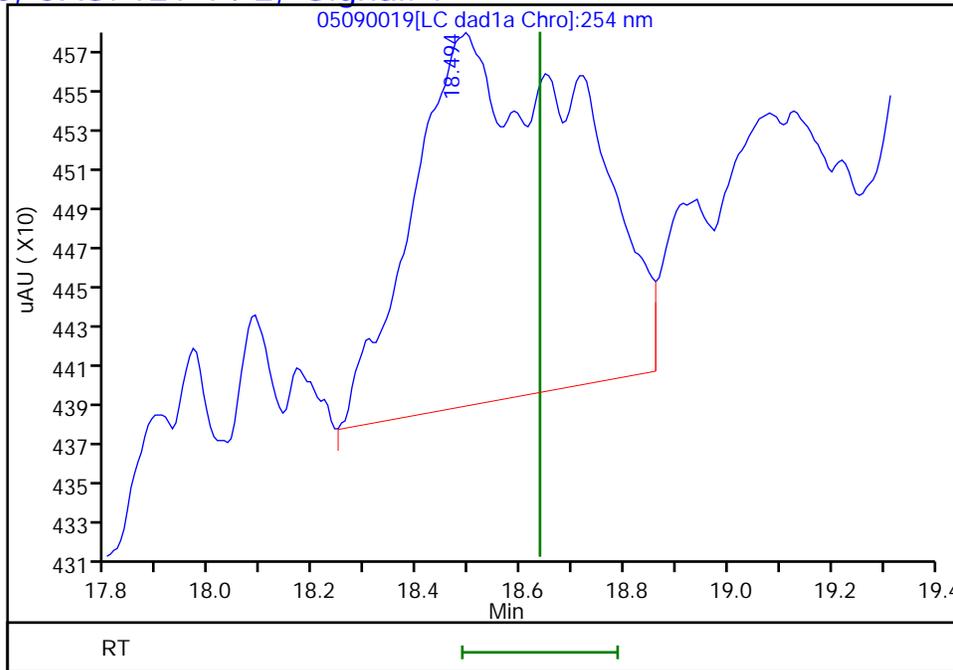
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 18.49
Response: 4208
Amount: 0.007588



Reviewer: LV5D, 10-May-2024 14:53:02

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

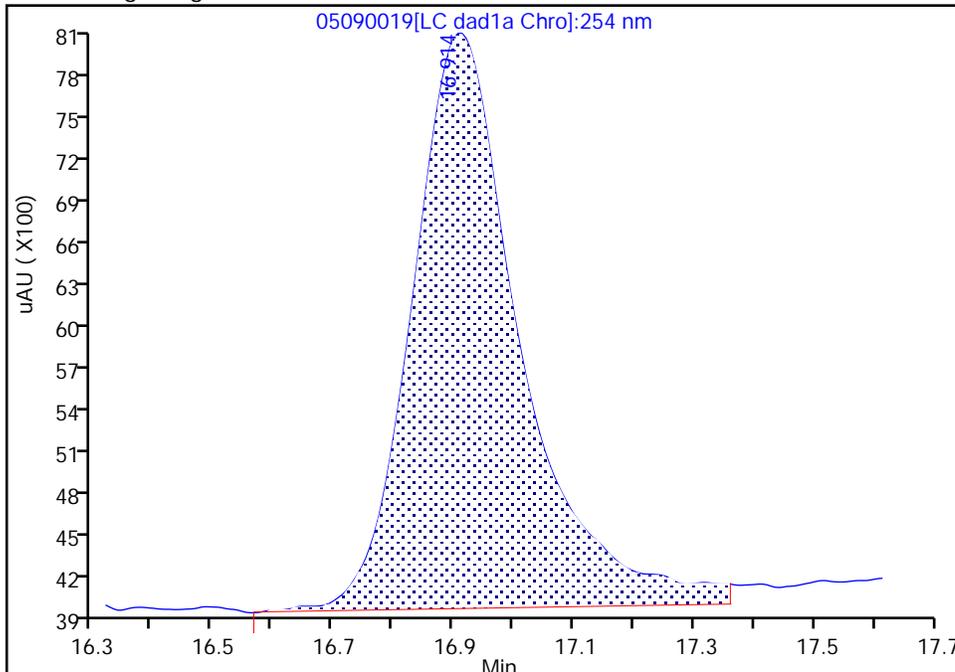
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

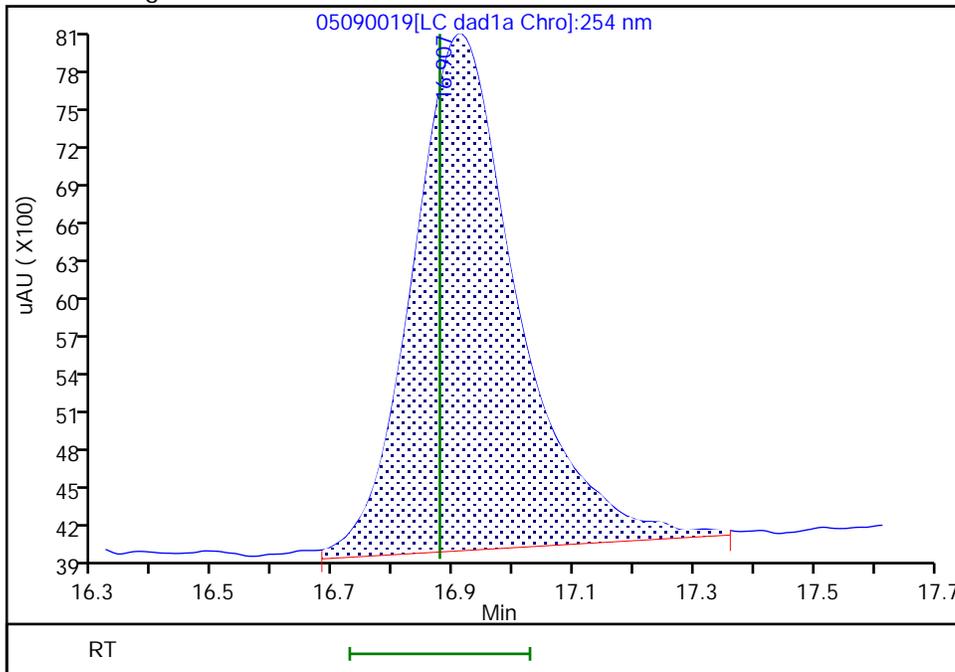
RT: 16.91
Area: 51044
Amount: 0.125860
Amount Units: ug/ml

Processing Integration Results



RT: 16.91
Area: 48898
Amount: 0.120568
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 14:52:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

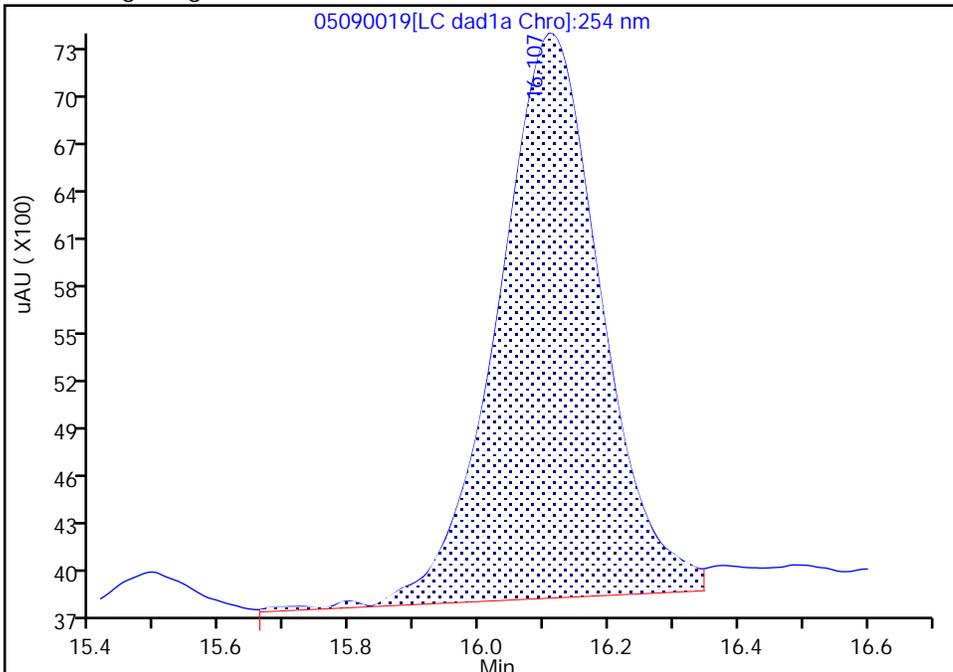
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

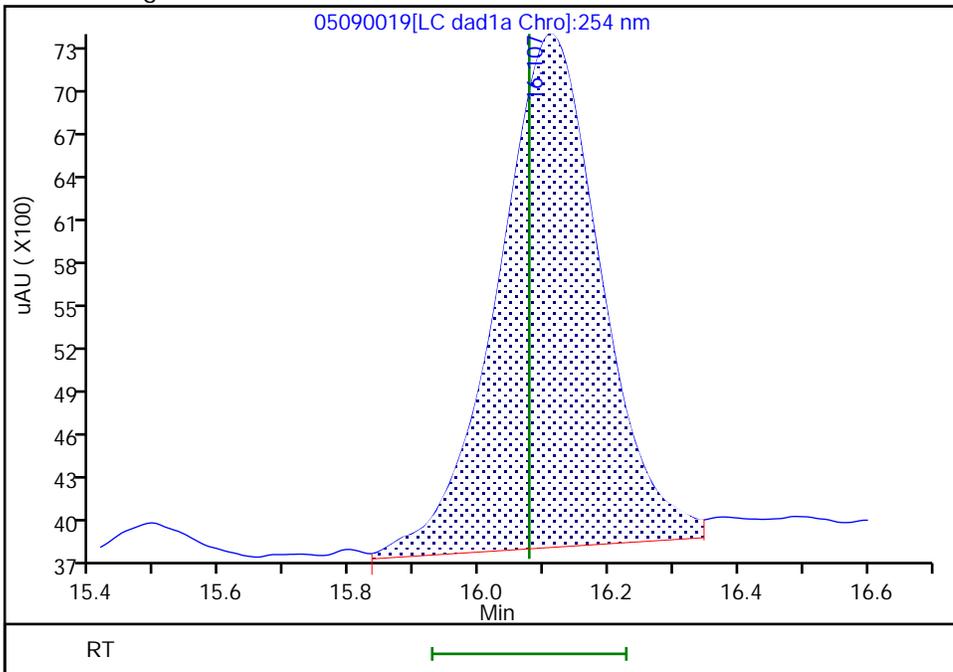
Processing Integration Results

RT: 16.11
Area: 39105
Amount: 0.142341
Amount Units: ug/ml



Manual Integration Results

RT: 16.11
Area: 38830
Amount: 0.141321
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 14:52:56 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

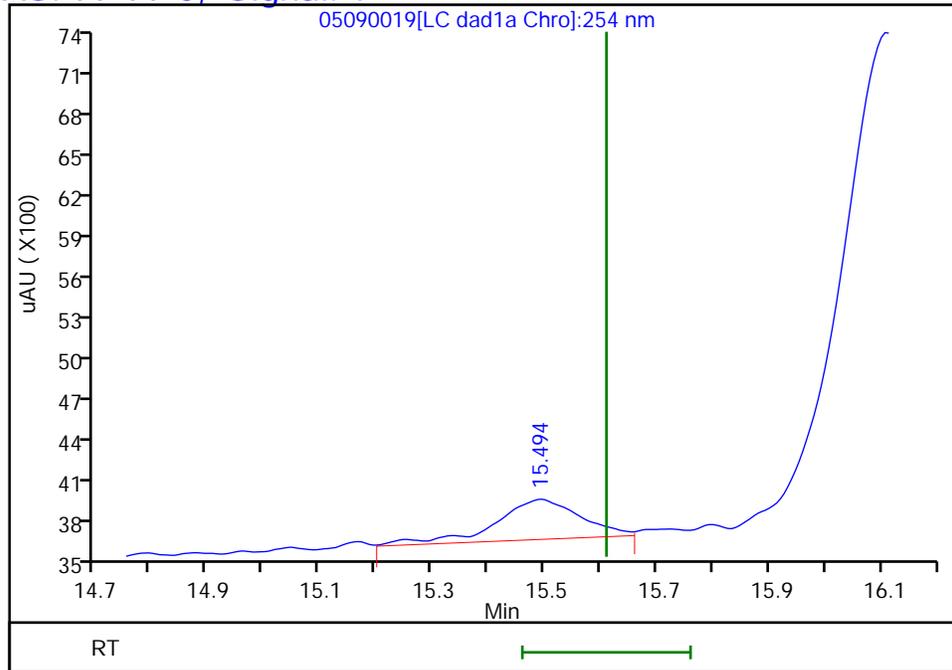
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090019.d
Injection Date: 10-May-2024 00:28:27 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-A-4-A Lab Sample ID: 280-190903-4
Client ID: FBQmw-173-240401-GW
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

RT: 15.49
Response: 2974
Amount: 0.009444



Reviewer: LV5D, 10-May-2024 14:53:02

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240402-GW Lab Sample ID: 280-190903-5
 Matrix: Water Lab File ID: 05090016.D
 Analysis Method: 8330B Date Collected: 05/01/2024 14:45
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 476.1(mL) Date Analyzed: 05/09/2024 19:24
 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.: 652806 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	0.11	U	0.12	0.11	0.039
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	0.84		0.12	0.11	0.053
88-72-2	2-Nitrotoluene	0.21	U Q	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U Q	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.1		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	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
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	85	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090016.D
 Lims ID: 280-190903-B-5-A
 Client ID: FBQmw-173-240402-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 19:24:12 ALS Bottle#: 16 Worklist Smp#: 16
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-5-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:47:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.610			ND	
8 RDX	1	7.621	7.624	-0.003	1327	0.0120	M
\$ 10 1,2-Dinitrobenzene	1	8.554	8.557	-0.003	22595	0.1709	M
11 1,3,5-Trinitrobenzene	1		8.697			ND	
12 1,3-Dinitrobenzene	1		9.310			ND	
13 Nitrobenzene	1		9.663			ND	
15 Tetryl	1		9.977			ND	U
16 Nitroglycerin	2		10.443			ND	
17 2,4,6-Trinitrotoluene	1	10.874	10.877	-0.003	1584	0.007361	
18 4-Amino-2,6-dinitrotoluene	1	11.047	11.057	-0.010	15790	0.1053	
19 2-Amino-4,6-dinitrotoluene	1	11.307	11.310	-0.003	15953	0.0798	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	
22 o-Nitrotoluene	1		12.397			ND	7
23 p-Nitrotoluene	1		12.817			ND	
24 m-Nitrotoluene	1		13.363			ND	
25 PETN	2		14.403			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090016.d

Injection Date: 09-May-2024 19:24:12

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: 280-190903-B-5-A

Lab Sample ID: 280-190903-5

Worklist Smp#: 16

Client ID: FBQmw-173-240402-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

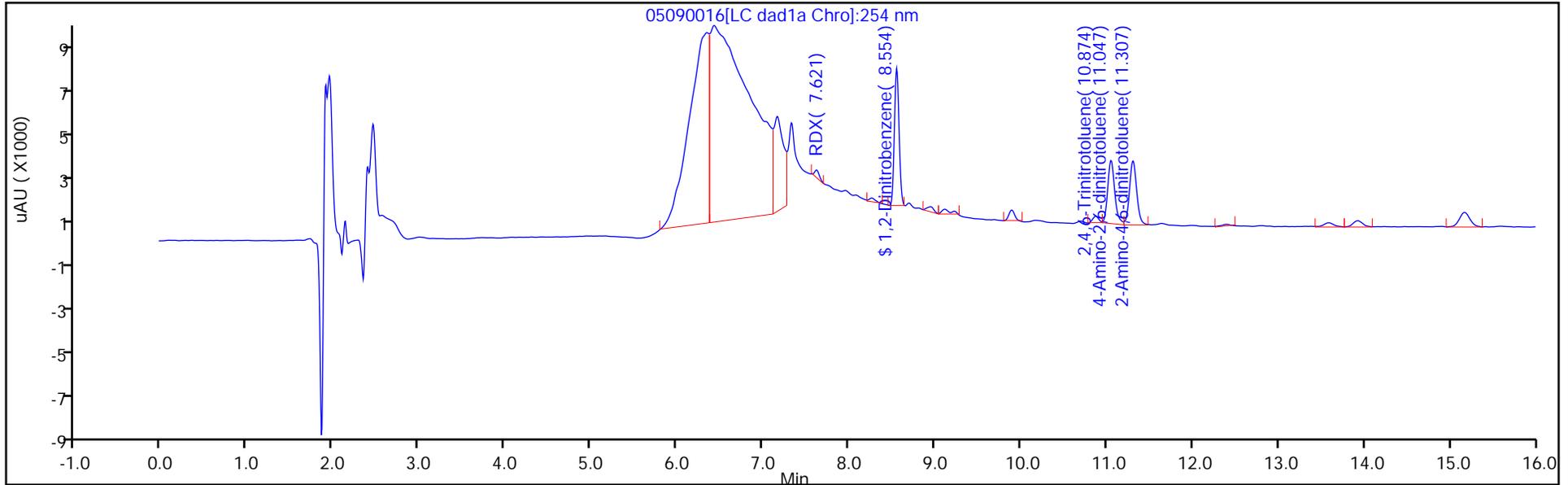
ALS Bottle#: 16

Method: 8330_X3

Limit Group: GCSV - 8330

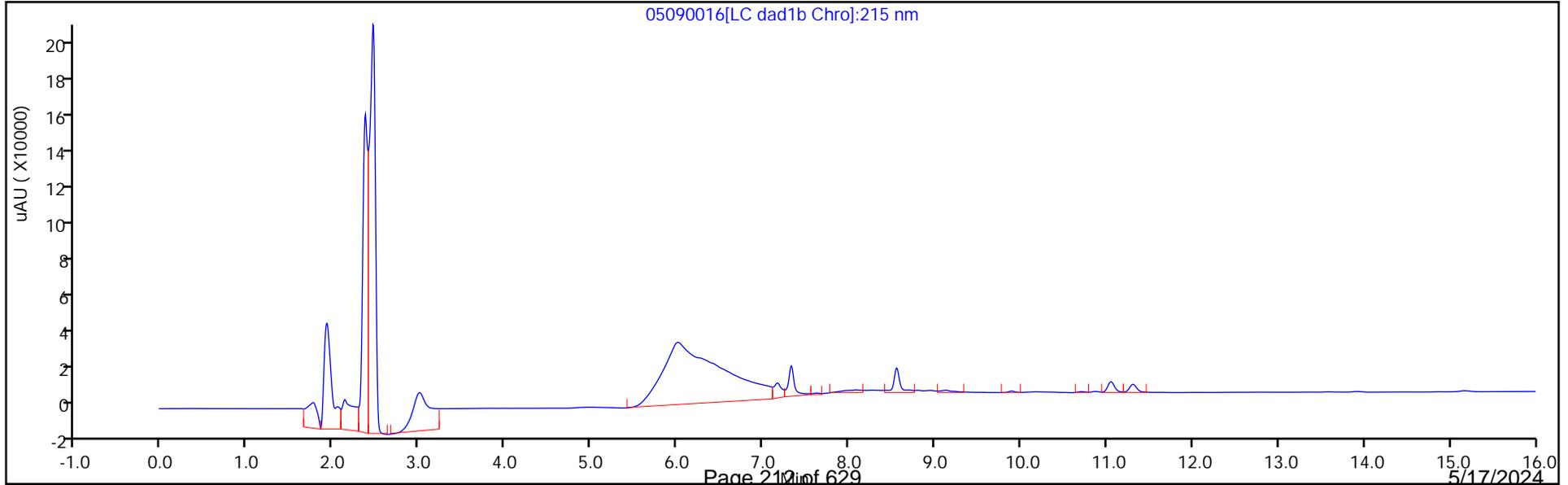
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090016.D
 Lims ID: 280-190903-B-5-A
 Client ID: FBQmw-173-240402-GW
 Sample Type: Client
 Inject. Date: 09-May-2024 19:24:12 ALS Bottle#: 16 Worklist Smp#: 16
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-5-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 19:47:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1709	85.47

Eurofins Denver

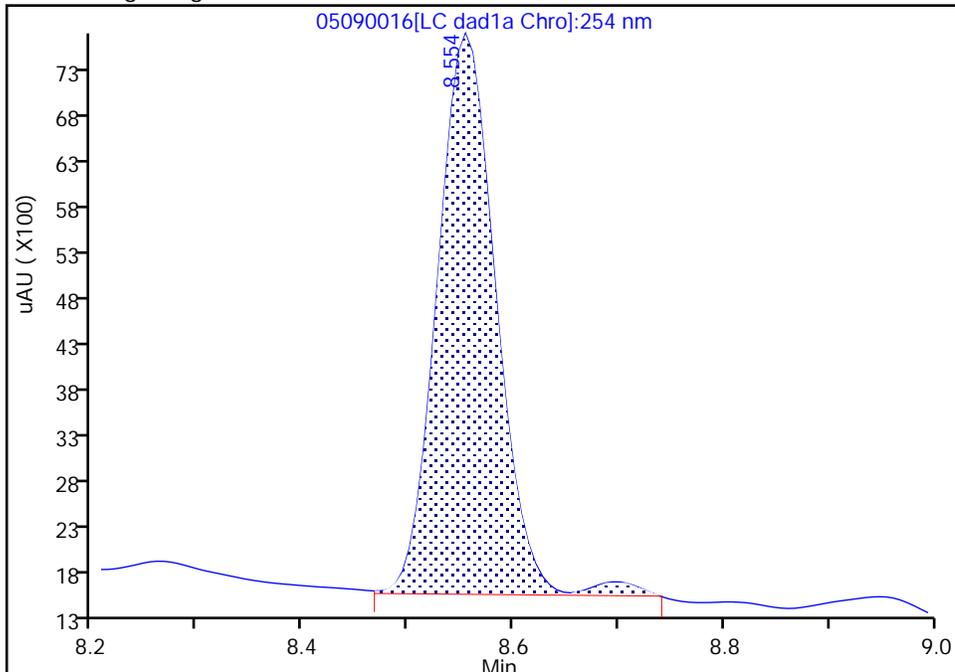
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090016.d
Injection Date: 09-May-2024 19:24:12 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

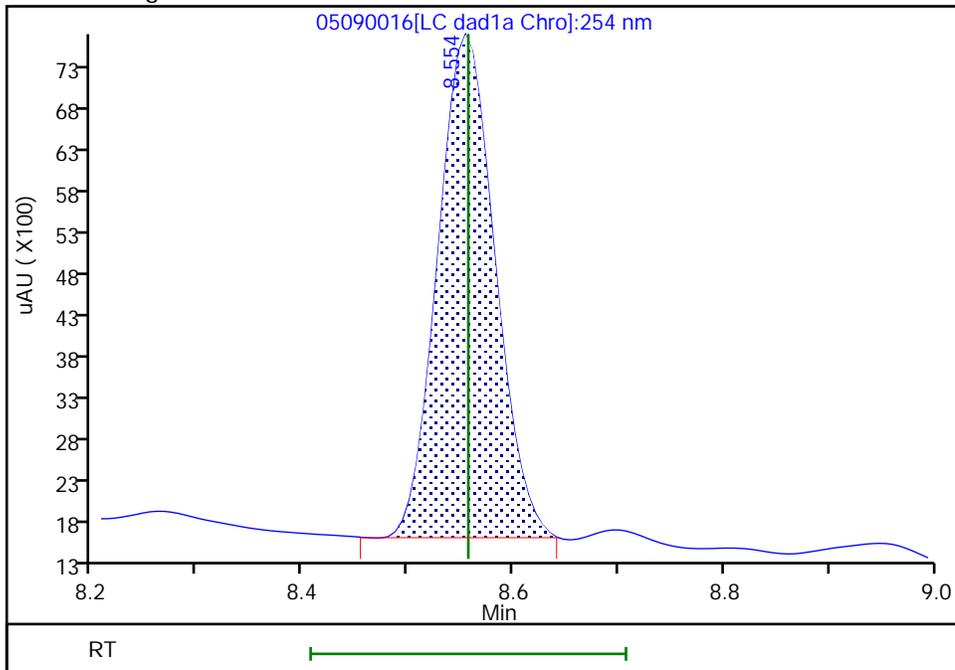
RT: 8.55
Area: 23676
Amount: 0.179154
Amount Units: ug/mL

Processing Integration Results



RT: 8.55
Area: 22595
Amount: 0.170942
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:47:36 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

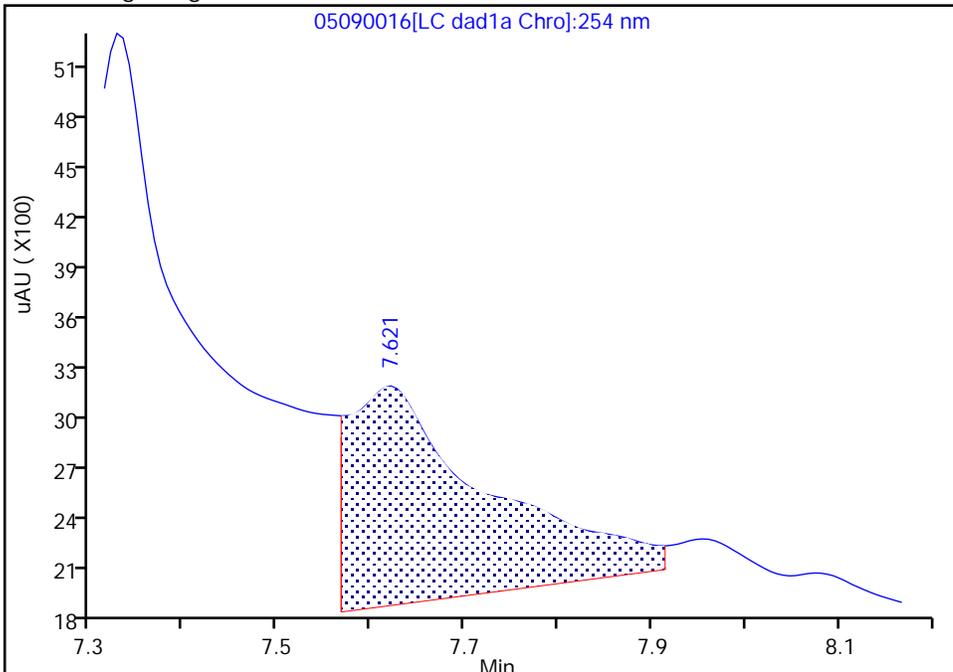
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090016.d
Injection Date: 09-May-2024 19:24:12 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

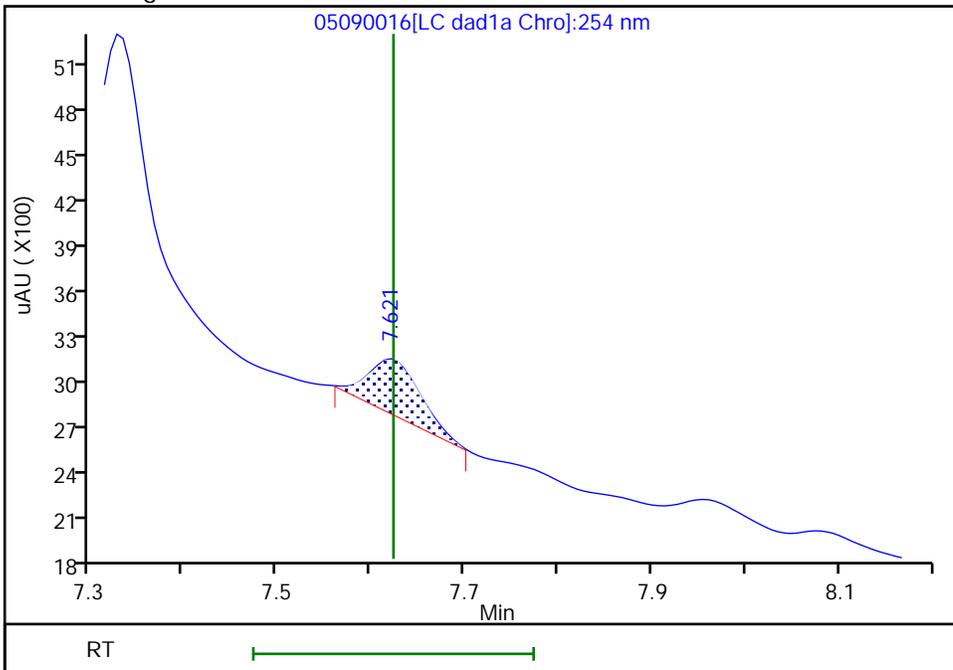
RT: 7.62
Area: 13280
Amount: 0.119891
Amount Units: ug/mL

Processing Integration Results



RT: 7.62
Area: 1327
Amount: 0.011980
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 19:47:34 -06:00:00 (UTC)

Audit Action: Manually Integrated

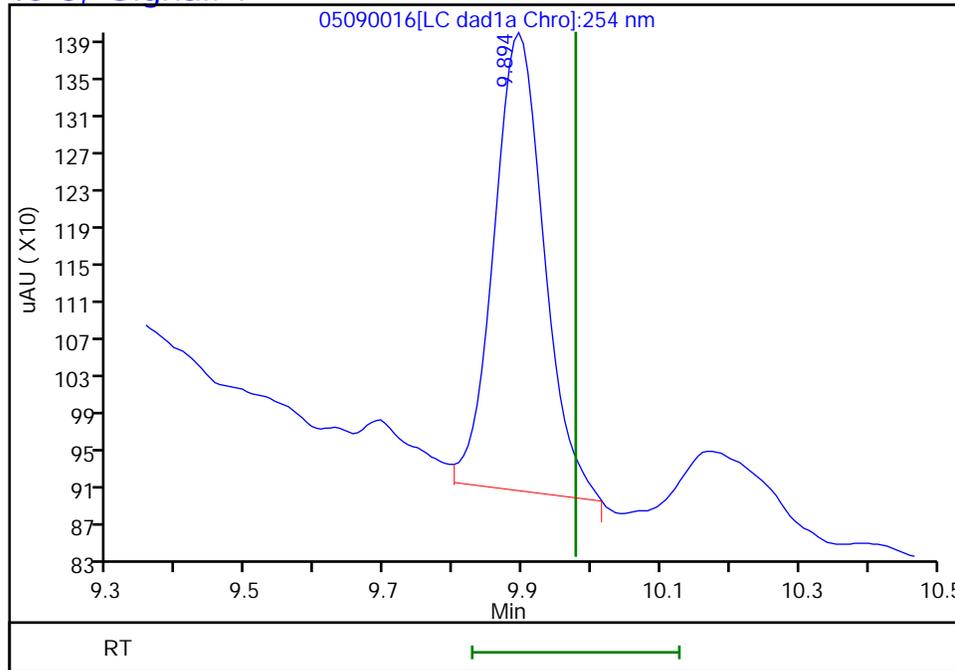
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090016.d
Injection Date: 09-May-2024 19:24:12 Instrument ID: CHHPLC_X3
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 9.89
Response: 2488
Amount: 0.013701



Reviewer: LV5D, 09-May-2024 19:47:44

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Client Sample ID: FBQmw-173-240402-GW Lab Sample ID: 280-190903-5
 Matrix: Water Lab File ID: 05090020.D
 Analysis Method: 8330B Date Collected: 05/01/2024 14:45
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 476.1(mL) Date Analyzed: 05/10/2024 01:04
 Con. Extract Vol.: 5(mL) Dilution Factor: 1
 Injection Volume: 100(uL) GC Column: Luna-phenylhex ID: 4.6(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 652810 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	0.11	U M	0.12	0.11	0.047
121-82-4	RDX	0.21	U	0.22	0.21	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\05090020.D
 Lims ID: 280-190903-B-5-A
 Client ID: FBQmw-173-240402-GW
 Sample Type: Client
 Inject. Date: 10-May-2024 01:04:23 ALS Bottle#: 20 Worklist Smp#: 20
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-5-A
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:48 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 14:53:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.637			ND	
8 RDX	1		8.844			ND	
9 Nitrobenzene	1		11.330			ND	
\$ 10 1,2-Dinitrobenzene	1	12.245	12.224	0.021	44767	0.1731	M
12 1,3-Dinitrobenzene	1		14.350			ND	
13 Nitroglycerin	2		14.804			ND	U
14 o-Nitrotoluene	1		15.377			ND	U
15 p-Nitrotoluene	1		15.610			ND	
16 4-Amino-2,6-dinitrotoluene	1	16.111	16.077	0.034	29364	0.1062	M
17 m-Nitrotoluene	1		16.437			ND	
18 2-Amino-4,6-dinitrotoluene	1	16.911	16.877	0.034	40585	0.1001	M
19 1,3,5-Trinitrobenzene	1		17.130			ND	
20 2,6-Dinitrotoluene	1		18.184			ND	
21 2,4-Dinitrotoluene	1		18.637			ND	7
22 Tetryl	1		21.751			ND	
23 2,4,6-Trinitrotoluene	1		22.624			ND	U
24 PETN	2		23.751			ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 10-May-2024 16:36:53

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d

Injection Date: 10-May-2024 01:04:23

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ

Lims ID: 280-190903-B-5-A

Lab Sample ID: 280-190903-5

Worklist Smp#: 20

Client ID: FBQmw-173-240402-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

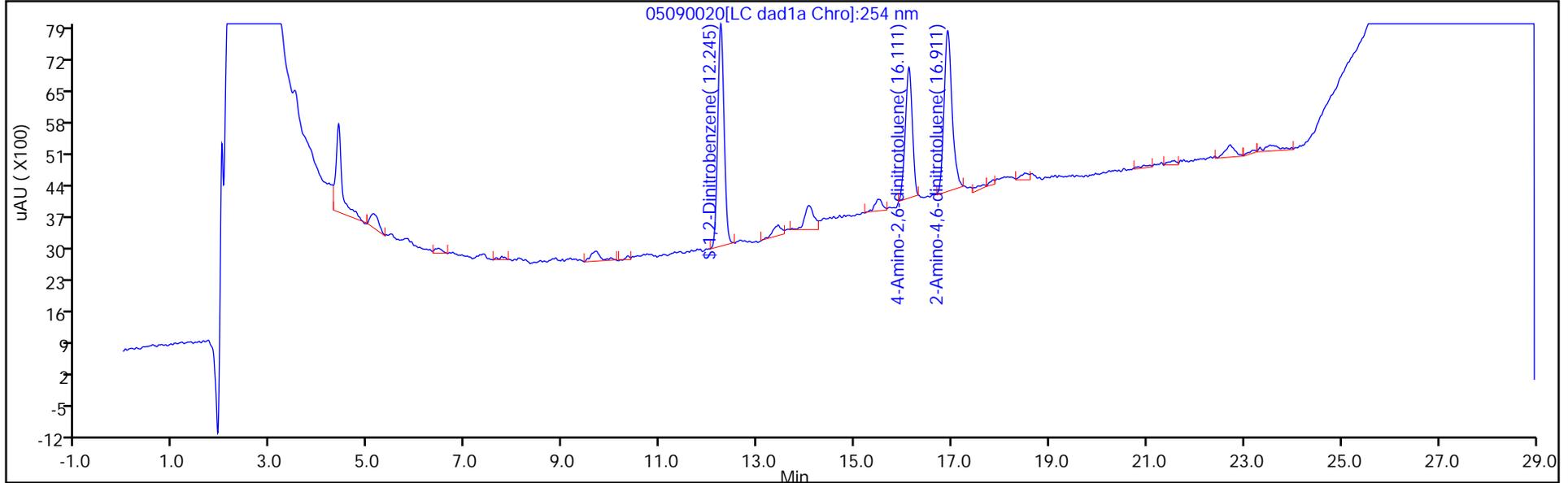
ALS Bottle#: 20

Method: G2_8330_Luna

Limit Group: GCSV - 8330

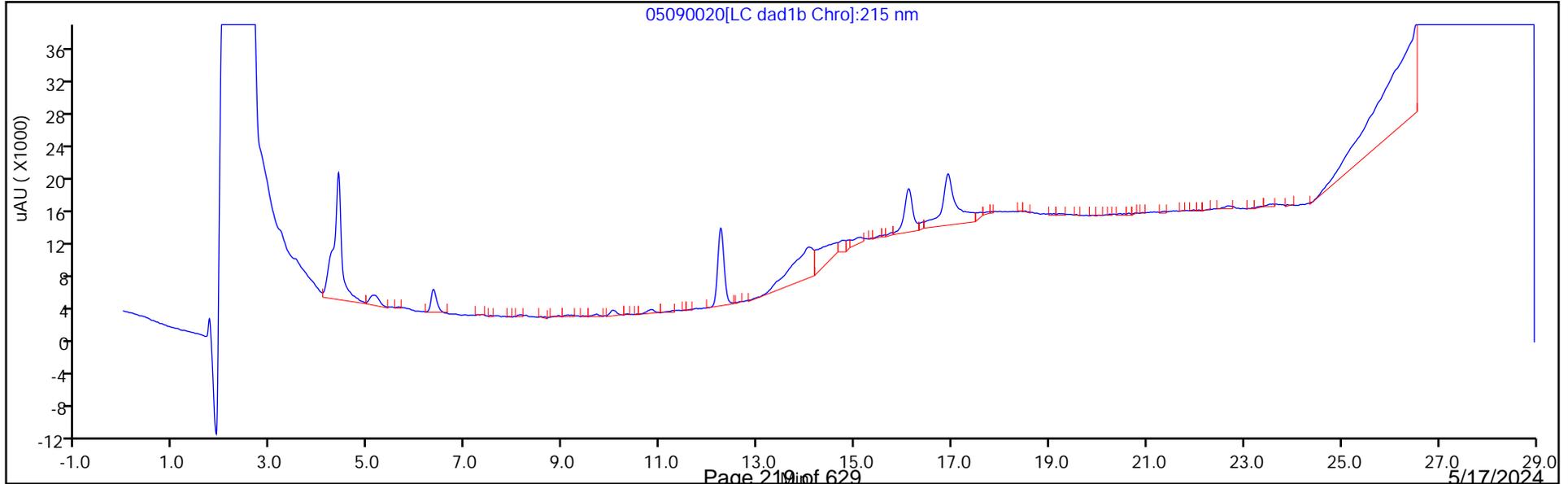
Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest 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\G2_LUNA\20240509-133213.b\05090020.D
 Lims ID: 280-190903-B-5-A
 Client ID: FBQmw-173-240402-GW
 Sample Type: Client
 Inject. Date: 10-May-2024 01:04:23 ALS Bottle#: 20 Worklist Smp#: 20
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-5-A
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:48 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 14:53:33

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1731	86.53

Eurofins Denver

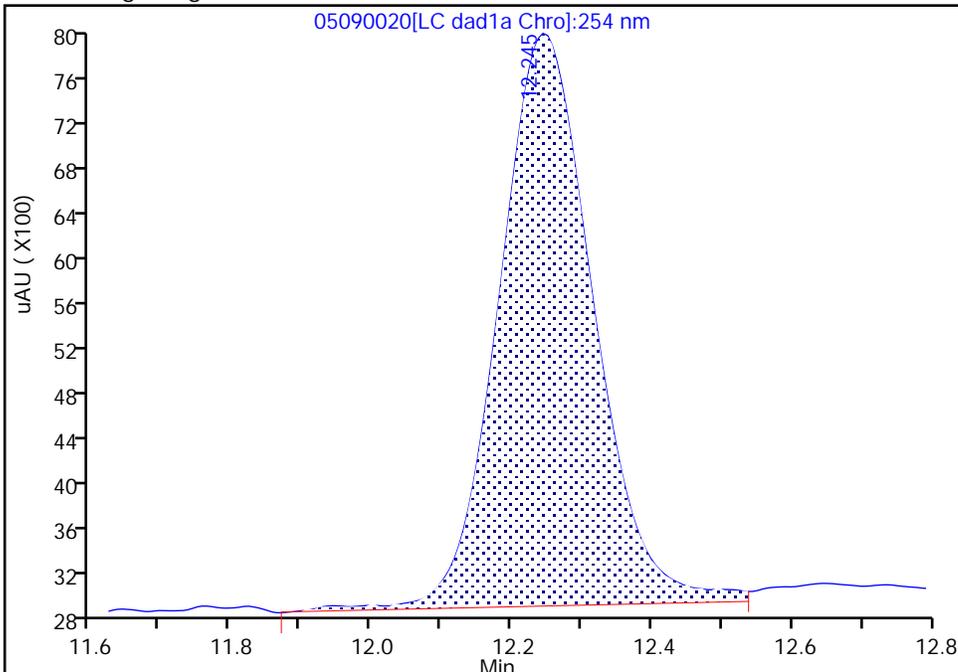
Data File:	\\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d		
Injection Date:	10-May-2024 01:04:23	Instrument ID:	CHHPLC_G2_LUNA
Lims ID:	280-190903-B-5-A	Lab Sample ID:	280-190903-5
Client ID:	FBQmw-173-240402-GW		
Operator ID:	JZ	ALS Bottle#:	20 Worklist Smp#: 20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector:	LC DAD1A, 254 nm

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

Signal: 1

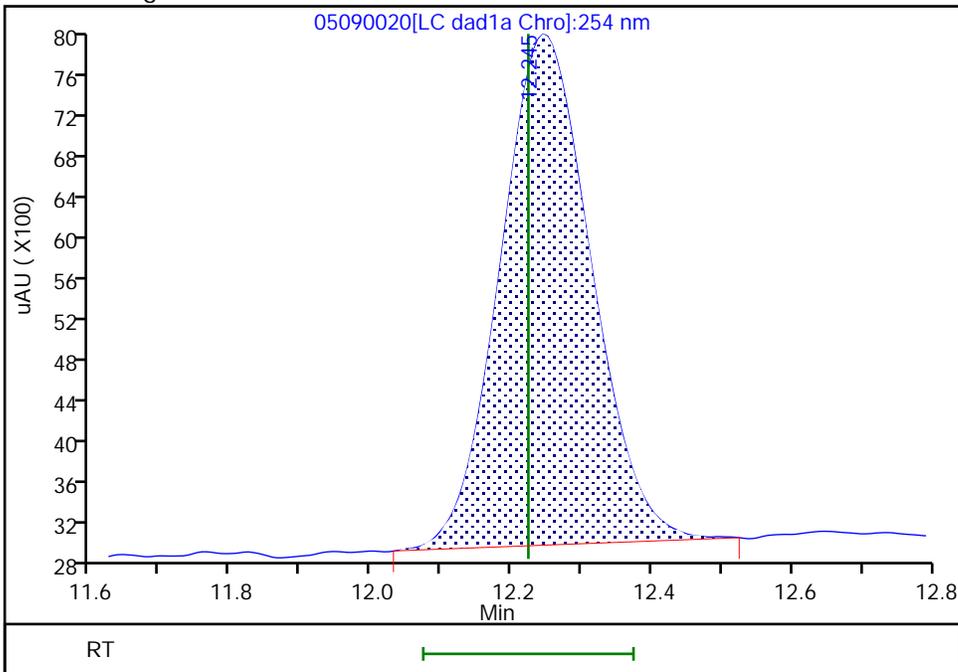
RT: 12.24
 Area: 47353
 Amount: 0.183050
 Amount Units: ug/ml

Processing Integration Results



RT: 12.24
 Area: 44767
 Amount: 0.173053
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 14:53:08 -06:00:00 (UTC)

Audit Action: Manually Integrated

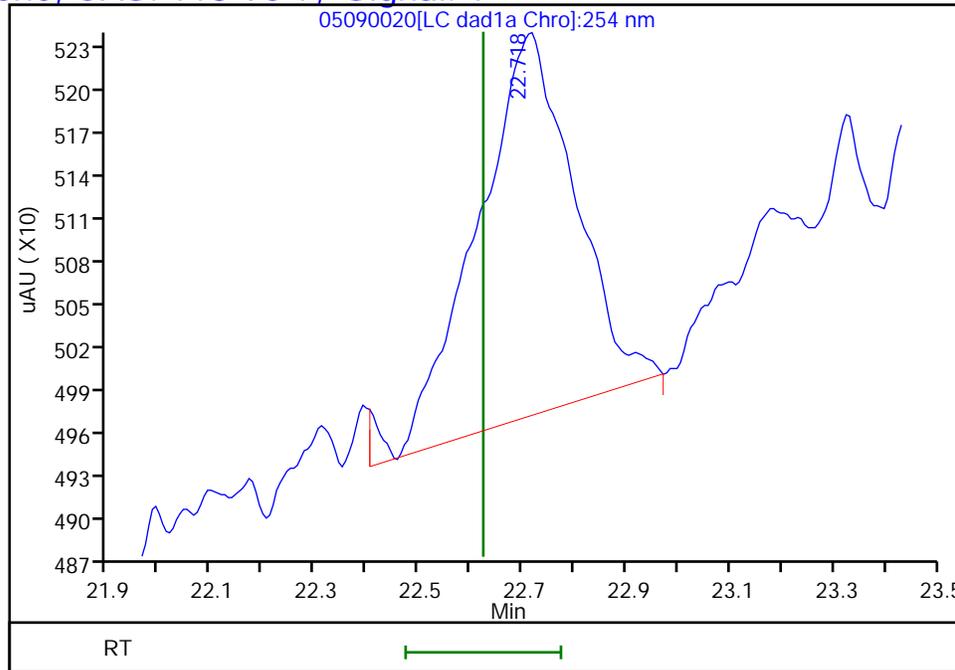
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d
Injection Date: 10-May-2024 01:04:23 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 22.72
Response: 3475
Amount: 0.008693



Reviewer: LV5D, 10-May-2024 14:53:33

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

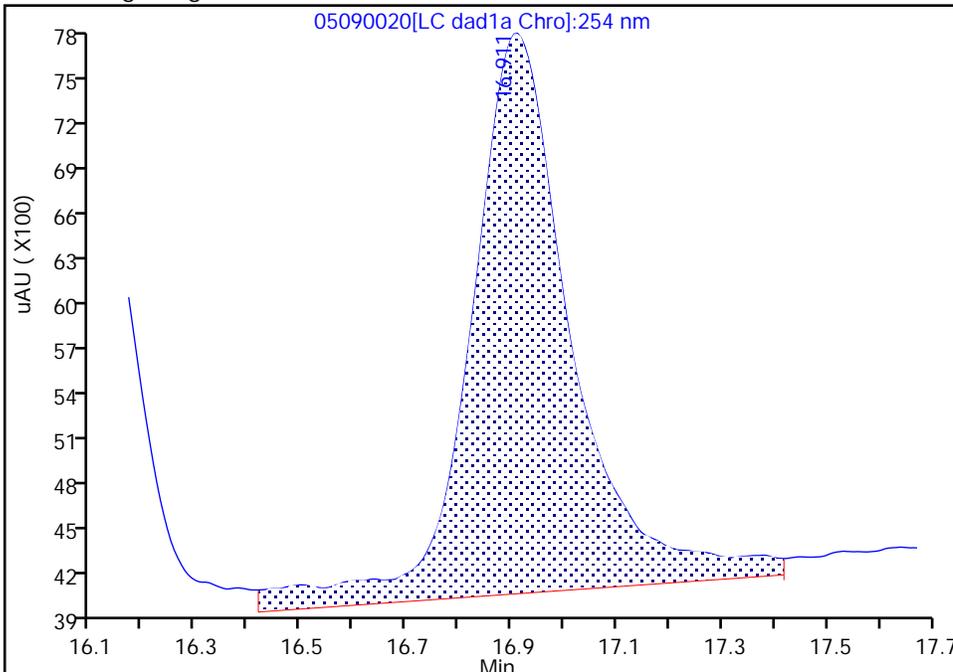
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d
Injection Date: 10-May-2024 01:04:23 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

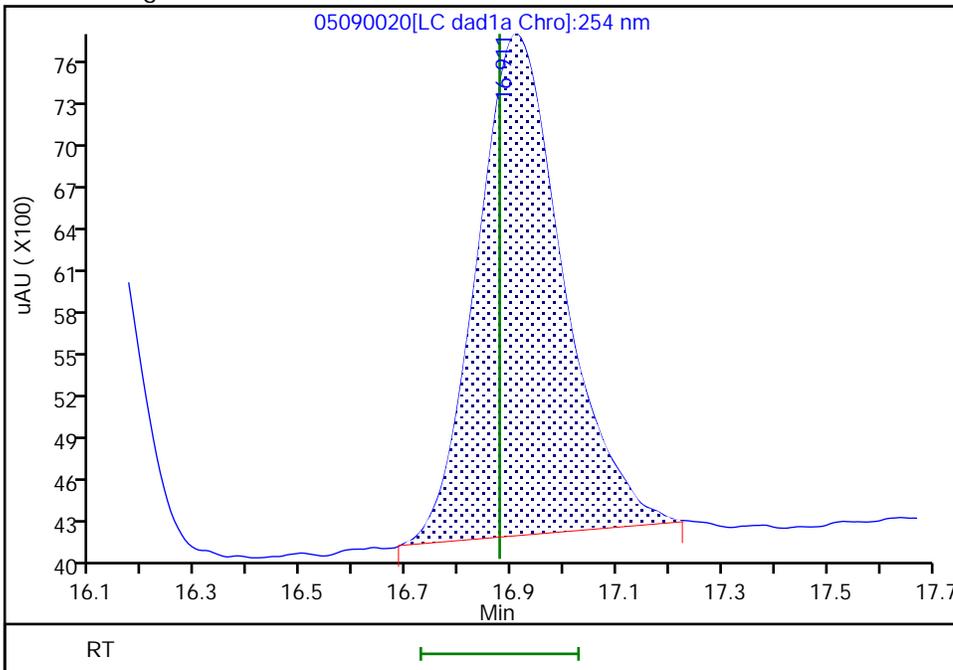
Processing Integration Results

RT: 16.91
Area: 51084
Amount: 0.125958
Amount Units: ug/ml



Manual Integration Results

RT: 16.91
Area: 40585
Amount: 0.100071
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 14:53:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

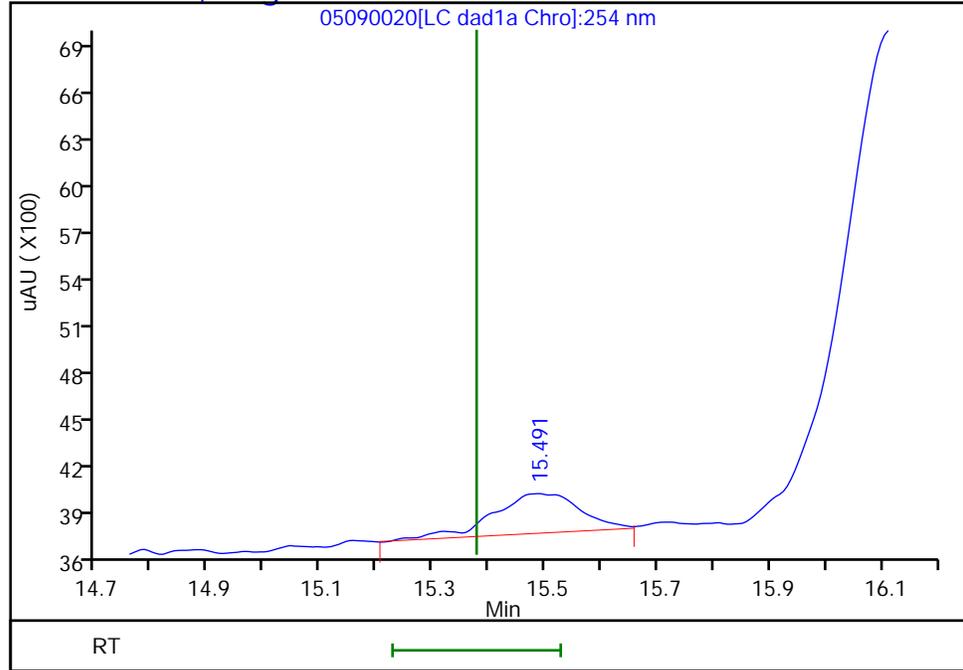
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d
Injection Date: 10-May-2024 01:04:23 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 15.49
Response: 2769
Amount: 0.011321



Reviewer: LV5D, 10-May-2024 14:53:33

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

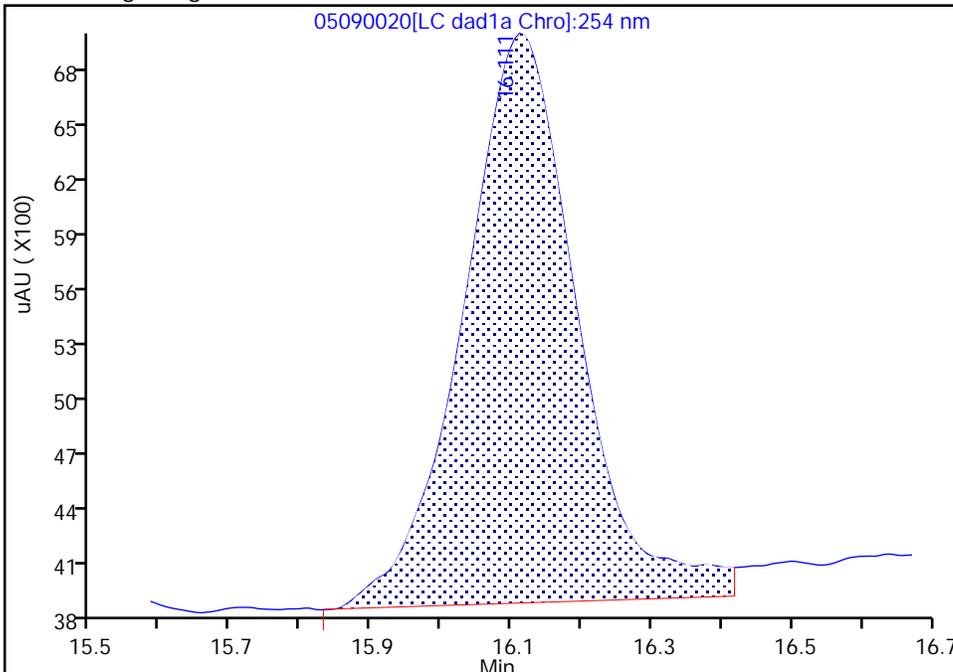
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090020.d
Injection Date: 10-May-2024 01:04:23 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-190903-B-5-A Lab Sample ID: 280-190903-5
Client ID: FBQmw-173-240402-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

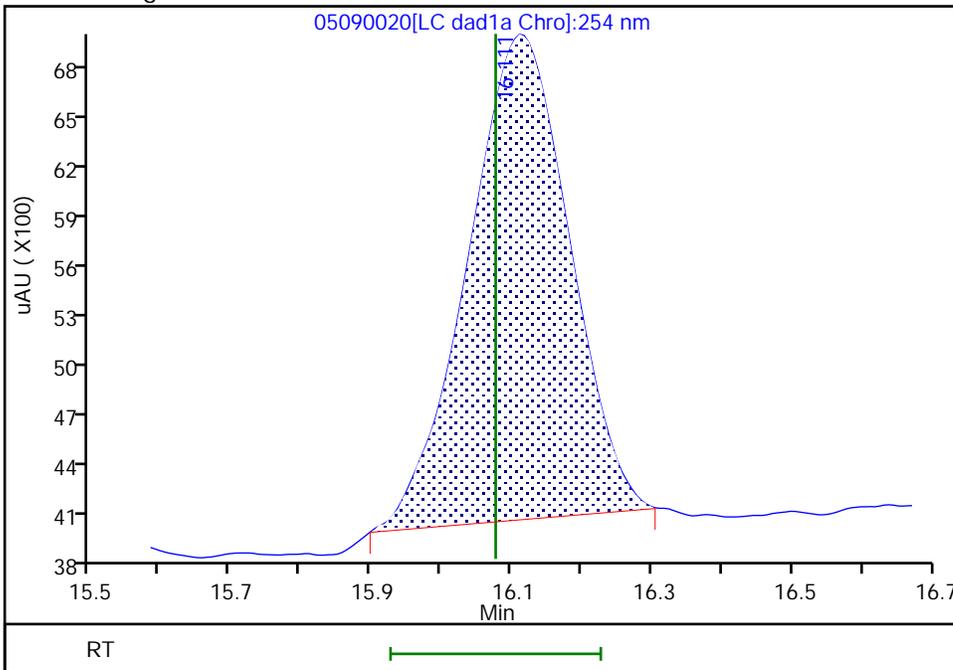
Processing Integration Results

RT: 16.11
Area: 35049
Amount: 0.127292
Amount Units: ug/ml



Manual Integration Results

RT: 16.11
Area: 29364
Amount: 0.106198
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 14:53:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 650851
 SDG No.: _____
 Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.713	6.712	6.709	6.706	6.705	6.700	6.693	6.703	6.661		6.555 - 6.855	6.700
Picric acid	8.700	8.726	8.663	8.659	8.612	8.587	8.553	8.523	8.381		8.462 - 8.762	8.600
RDX	8.953	8.952	8.943	8.946	8.938	8.927	8.927	8.923	8.874		8.788 - 9.088	8.931
Nitrobenzene	11.426	11.459	11.436	11.452	11.425	11.420	11.426	11.416	11.374		11.275 - 11.575	11.426
3,5-Dinitroaniline	14.200	14.232	14.203	14.205	14.185	14.180	14.186	14.169	14.127		14.035 - 14.335	14.187
1,3-Dinitrobenzene	14.493	14.519	14.496	14.492	14.478	14.473	14.480	14.469	14.427		14.328 - 14.628	14.481
Nitroglycerin	14.940	14.979	14.943	14.945	14.918	14.920	14.940	14.916	14.880		14.768 - 15.068	14.931
2-Nitrotoluene	++++	15.559	15.523	15.532	15.505	15.507	15.526	15.502	15.467		15.355 - 15.655	15.515
4-Nitrotoluene	++++	15.772	15.743	15.759	15.738	15.740	15.753	15.729	15.694		15.588 - 15.888	15.741
4-Amino-2,6-dinitrotoluene	16.260	16.286	16.249	16.265	16.245	16.240	16.253	16.229	16.194		16.095 - 16.395	16.247
3-Nitrotoluene	16.586	16.619	16.583	16.599	16.578	16.573	16.586	16.569	16.527		16.428 - 16.728	16.580
2-Amino-4,6-dinitrotoluene	17.086	17.099	17.063	17.079	17.058	17.053	17.066	17.042	17.000		16.908 - 17.208	17.061
1,3,5-Trinitrobenzene	17.286	17.306	17.283	17.285	17.272	17.267	17.280	17.262	17.227		17.122 - 17.422	17.274
2,6-Dinitrotoluene	18.380	18.386	18.369	18.379	18.365	18.353	18.373	18.349	18.314		18.215 - 18.515	18.363
2,4-Dinitrotoluene	18.833	18.846	18.823	18.839	18.818	18.807	18.826	18.802	18.767		18.668 - 18.968	18.818
Tetryl	22.027	22.072	22.023	22.052	22.025	22.007	22.020	22.003	21.987		21.875 - 22.175	22.024
2,4,6-Trinitrotoluene	22.900	22.926	22.876	22.912	22.878	22.874	22.873	22.863	22.841		22.728 - 23.028	22.883
PETN	24.033	24.046	24.016	24.046	24.032	24.014	24.013	24.009	23.987		23.882 - 24.182	24.022
1,2-Dinitrobenzene	12.360	12.392	12.356	12.372	12.345	12.340	12.346	12.336	12.294		12.195 - 12.495	12.349

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 650851
 SDG No.: _____
 Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	167700 173948 174202	178900 175808	170180 173424	179770 172751	Ave		174075.82 1			2.2		20.0				
Picric acid	154900 148172 153137	165100 151088	140280 150487	148590 150820	Ave		151397.09 4			4.3		20.0				
RDX	256200 210828 204073	239550 207963	213080 202951	216090 202193	Lin2	539.02311 2	205652.80 6						0.9990		0.9900	
Nitrobenzene	381800 372900 381987	405050 384143	363860 378609	394890 375845	Ave		382120.31 9			3.2		20.0				
3,5-Dinitroaniline	524500 432092 431274	473150 439350	449620 432267	436700 431522	Lin2	918.68701 4	430726.78 3						1.0000		0.9900	
1,3-Dinitrobenzene	633200 572076 577399	615900 578140	611920 570583	575920 569625	Ave		589418.11 7			4.1		20.0				
Nitroglycerin	104310 123840 119273	119385 124108	118260 120549	126558 119260	Ave		119504.76 5			5.3		20.0				
2-Nitrotoluene	++++ 235764 241788	251200 242098	264940 241561	237990 241414	Ave		244594.36 6			3.8		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.: 280-190903-1 Analy Batch No.: 650851

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Nitrotoluene	++++ 216520 219653	263900 223335	236500 221201	225490 217154	Lin2	917.73671 7	217721.69 0						1.0000		0.9900	
4-Amino-2,6-dinitrotoluene	336600 268460 268565	323700 274928	279100 270943	274490 269382	Lin2	742.45275 7	269511.07 1						0.9990		0.9900	
3-Nitrotoluene	367200 274236 277226	334250 280190	298820 277211	281030 273569	Lin2	968.90684 0	275587.80 9						1.0000		0.9900	
2-Amino-4,6-dinitrotoluene	502200 380328 379416	436650 390780	394700 386620	398530 380835	Ave		405562.15 6			9.9		20.0				
1,3,5-Trinitrobenzene	521000 404268 412363	458350 407038	387160 405177	411770 403965	Ave		423454.49 4			9.8		20.0				
2,6-Dinitrotoluene	301600 266156 268633	305650 268168	283940 267447	274870 265267	Ave		277970.04 9			5.6		20.0				
2,4-Dinitrotoluene	576400 534316 545101	600250 542238	571780 541644	542940 536407	Ave		554563.99 8			4.1		20.0				
Tetryl	367500 316916 314923	313400 314733	312600 312921	329200 310388	Lin2	448.10874 4	311971.21 6						0.9990		0.9900	
2,4,6-Trinitrotoluene	370300 401348 408571	398450 400180	402620 398954	418610 398830	Ave		399762.61 0			3.2		20.0				
PETN	105310 121971 123890	112970 123201	121232 123587	121831 122809	Lin2	-1863.260 5	123564.21 1						1.0000		0.9900	
1,2-Dinitrobenzene	223700 257724 258500	273700 261405	266480 257347	273700 255644	Ave		258688.94 9			5.7		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.: 280-190903-1 Analy Batch No.: 650851

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
HMX	Ave	1677 70323	3578 121397	8509 172751	17977 435504	43487	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1549 60435	3302 105341	7014 150820	14859 382843	37043	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Lin2	2562 83185	4791 142066	10654 202193	21609 510182	52707	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3818 153657	8101 265026	18193 375845	39489 954967	93225	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	5245 175740	9463 302587	22481 431522	43670 1078184	108023	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6332 231256	12318 399408	30596 569625	57592 1443498	143019	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	10431 496432	23877 843844	59130 1192597	126558 2981826	309600	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	++++ 96839	5024 169093	13247 241414	23799 604470	58941	++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	++++ 89334	5278 154841	11825 217154	22549 549133	54130	++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3366 109971	6474 189660	13955 269382	27449 671412	67115	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	3672 112076	6685 194048	14941 273569	28103 693064	68559	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	5022 156312	8733 270634	19735 380835	39853 948541	95082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	5210 162815	9167 283624	19358 403965	41177 1030907	101067	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3016 107267	6113 187213	14197 265267	27487 671582	66539	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5764	12005	28589	54294	133579	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.: 280-190903-1 Analy Batch No.: 650851

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

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
		216895	379151	536407	1362753		0.400	0.700	1.00	2.50	
Tetryl	Lin2	3675	6268	15630	32920	79229	0.0100	0.0200	0.0500	0.100	0.250
		125893	219045	310388	787307		0.400	0.700	1.00	2.50	
2,4,6-Trinitrotoluene	Ave	3703	7969	20131	41861	100337	0.0100	0.0200	0.0500	0.100	0.250
		160072	279268	398830	1021428		0.400	0.700	1.00	2.50	
PETN	Lin2	10531	22594	60616	121831	304928	0.100	0.200	0.500	1.00	2.50
		492803	865110	1228090	3097249		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	2237	5474	13324	27370	64431	0.0100	0.0200	0.0500	0.100	0.250
		104562	180143	255644	646251		0.400	0.700	1.00	2.50	

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240010.D
 Lims ID: IC INT 9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 24-Apr-2024 21:28:13 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:09 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:10:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.661	6.705	-0.044	435504	2.50	2.50	
5 2,4,6-Trinitrophenol	1	8.381	8.612	-0.231	382843	2.50	2.53	a
8 RDX	1	8.874	8.938	-0.064	510182	2.50	2.48	
9 Nitrobenzene	1	11.374	11.425	-0.051	954967	2.50	2.50	
\$ 10 1,2-Dinitrobenzene	1	12.294	12.345	-0.051	646251	2.50	2.50	
11 3,5-Dinitroaniline	1	14.127	14.185	-0.058	1078184	2.50	2.50	
12 1,3-Dinitrobenzene	1	14.427	14.478	-0.051	1443498	2.50	2.45	
13 Nitroglycerin	2	14.880	14.918	-0.038	2981826	25.0	25.0	M
14 o-Nitrotoluene	1	15.467	15.505	-0.038	604470	2.50	2.47	
15 p-Nitrotoluene	1	15.694	15.738	-0.044	549133	2.50	2.52	
16 4-Amino-2,6-dinitrotoluene	1	16.194	16.245	-0.051	671412	2.50	2.49	
17 m-Nitrotoluene	1	16.527	16.578	-0.051	693064	2.50	2.51	
18 2-Amino-4,6-dinitrotoluene	1	17.000	17.058	-0.058	948541	2.50	2.34	
19 1,3,5-Trinitrobenzene	1	17.227	17.272	-0.045	1030907	2.50	2.43	
20 2,6-Dinitrotoluene	1	18.314	18.365	-0.051	671582	2.50	2.42	
21 2,4-Dinitrotoluene	1	18.767	18.818	-0.051	1362753	2.50	2.46	
22 Tetryl	1	21.987	22.025	-0.038	787307	2.50	2.52	
23 2,4,6-Trinitrotoluene	1	22.841	22.878	-0.037	1021428	2.50	2.56	
24 PETN	2	23.987	24.032	-0.045	3097249	25.0	25.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00080

Amount Added: 250.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d

Injection Date: 24-Apr-2024 21:28:13

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 9

Worklist Smp#: 10

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

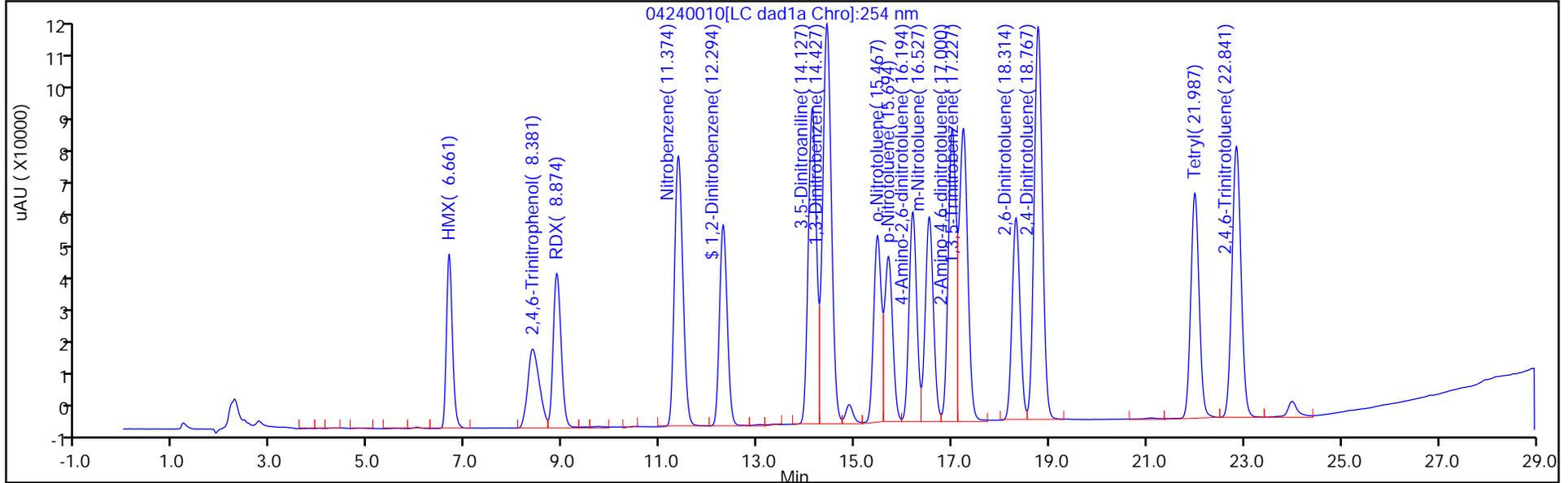
ALS Bottle#: 10

Method: G2_8330_Luna

Limit Group: GCSV - 8330

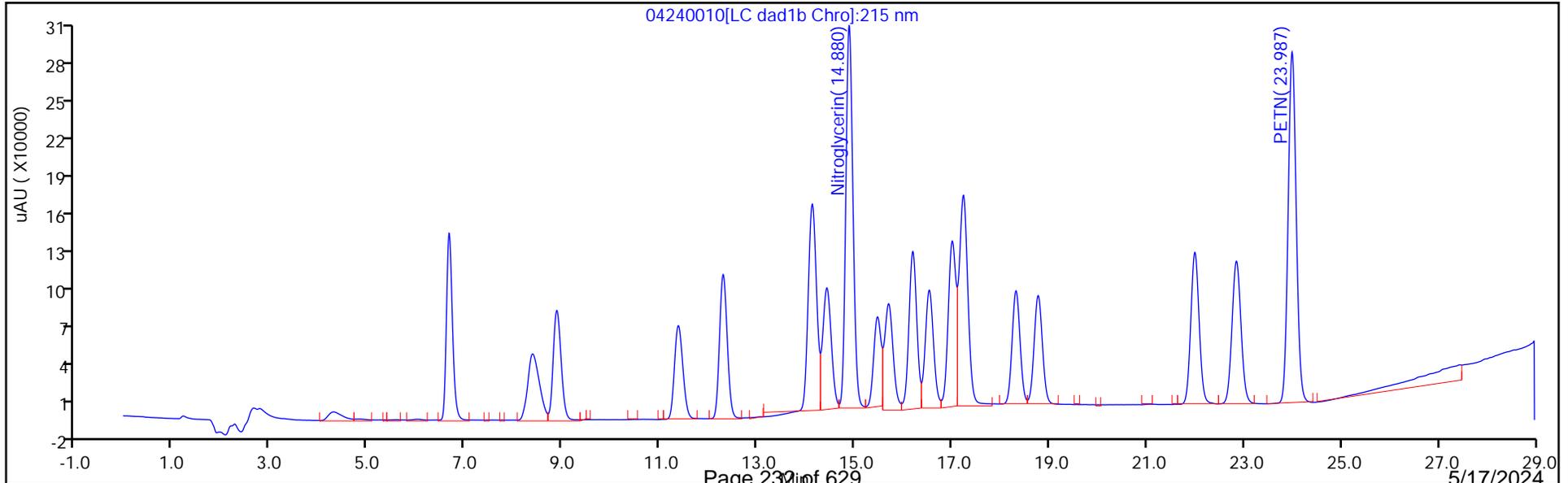
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

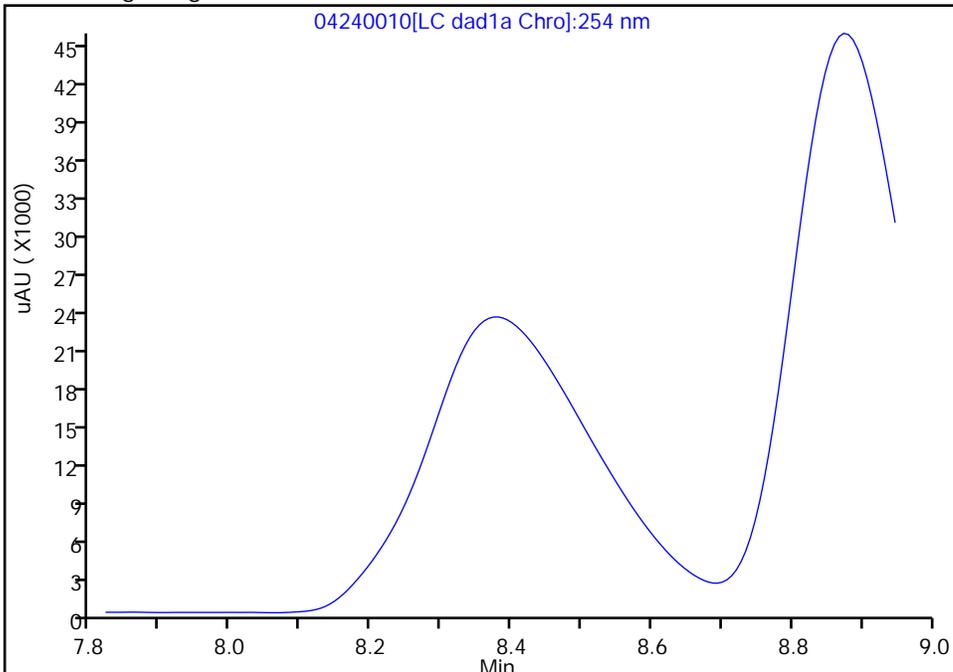
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d
Injection Date: 24-Apr-2024 21:28:13 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

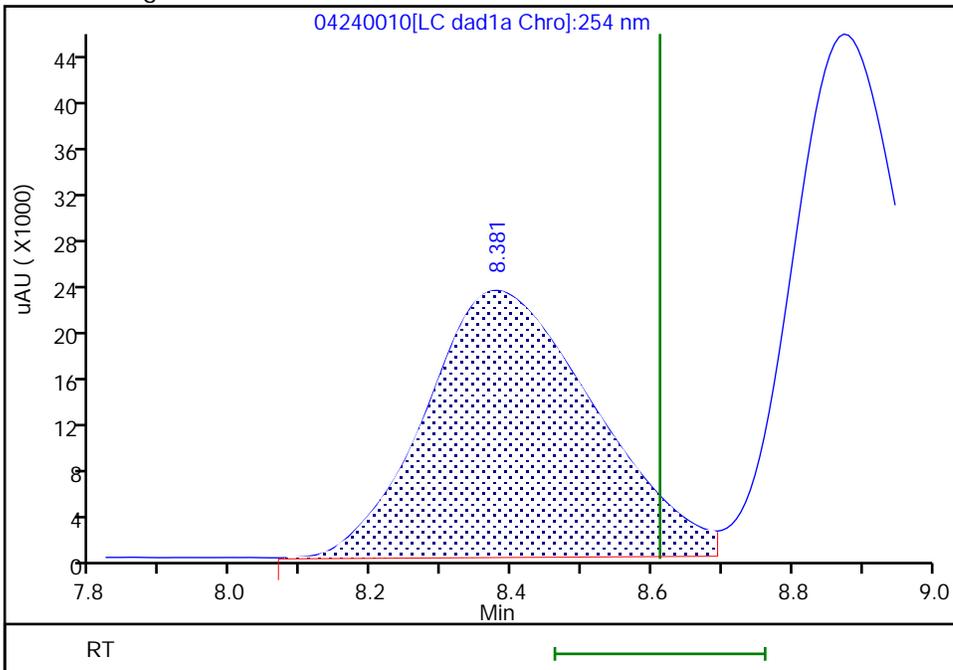
Not Detected
Expected RT: 8.61

Processing Integration Results



RT: 8.38
Area: 382843
Amount: 2.528734
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:10:11 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

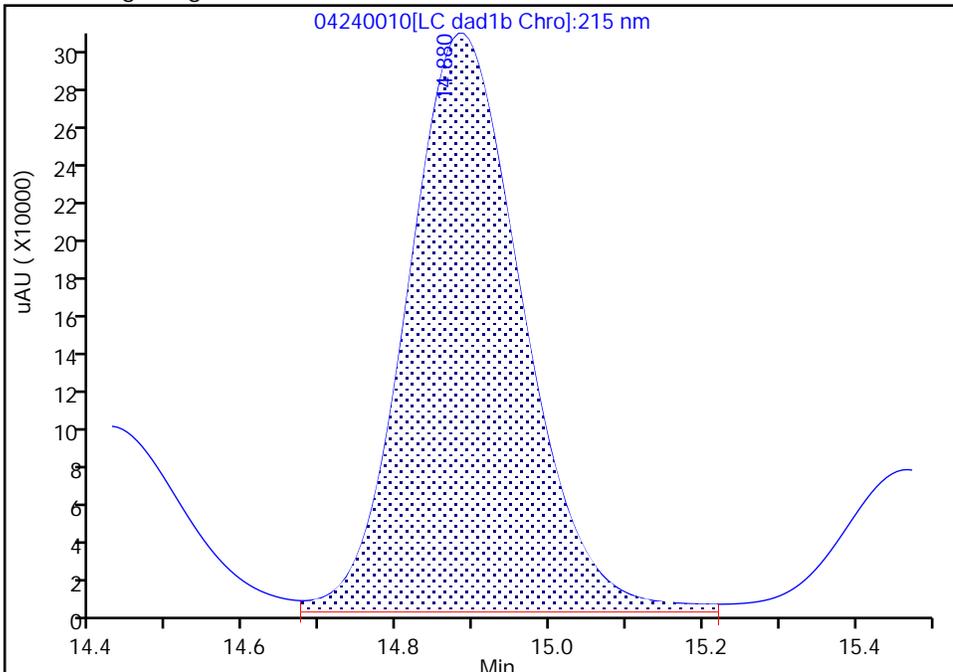
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d
Injection Date: 24-Apr-2024 21:28:13 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

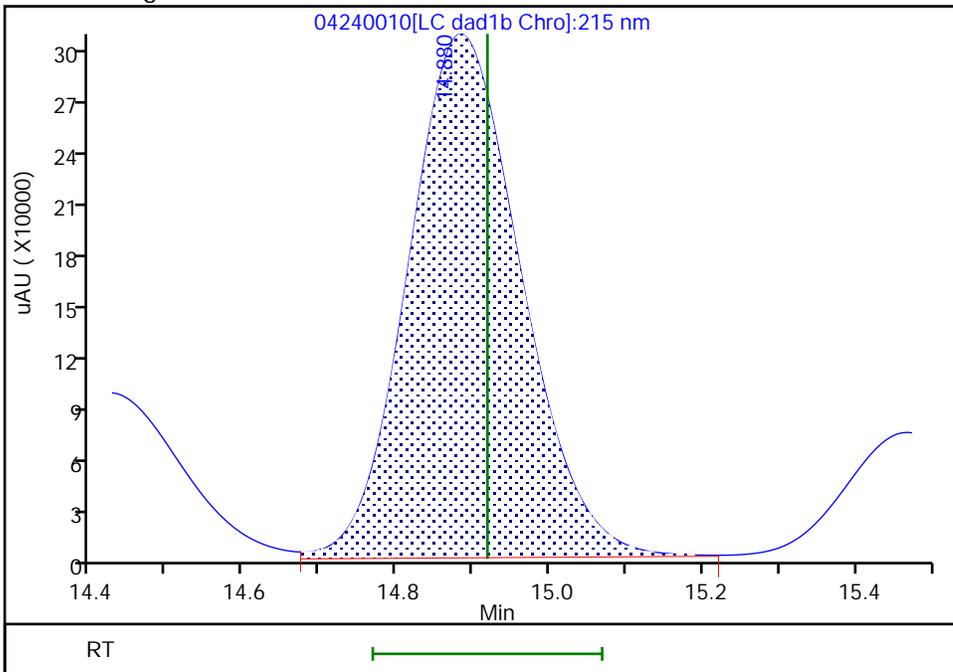
RT: 14.88
Area: 3082817
Amount: 11.814701
Amount Units: ug/ml

Processing Integration Results



RT: 14.88
Area: 2981826
Amount: 24.951524
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:10:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240011.D
 Lims ID: IC INT 8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 24-Apr-2024 22:04:12 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:10 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:18:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.703	6.705	-0.002	172751	1.00	0.99	
5 2,4,6-Trinitrophenol	1	8.523	8.612	-0.089	150820	1.00	1.00	
8 RDX	1	8.923	8.938	-0.015	202193	1.00	0.9806	
9 Nitrobenzene	1	11.416	11.425	-0.009	375845	1.00	0.9836	
\$ 10 1,2-Dinitrobenzene	1	12.336	12.345	-0.009	255644	1.00	0.9882	
11 3,5-Dinitroaniline	1	14.169	14.185	-0.016	431522	1.00	1.00	
12 1,3-Dinitrobenzene	1	14.469	14.478	-0.009	569625	1.00	0.9664	
13 Nitroglycerin	2	14.916	14.918	-0.002	1192597	10.0	9.98	M
14 o-Nitrotoluene	1	15.502	15.505	-0.003	241414	1.00	0.9870	
15 p-Nitrotoluene	1	15.729	15.738	-0.009	217154	1.00	0.99	
16 4-Amino-2,6-dinitrotoluene	1	16.229	16.245	-0.016	269382	1.00	1.00	
17 m-Nitrotoluene	1	16.569	16.578	-0.009	273569	1.00	0.9892	
18 2-Amino-4,6-dinitrotoluene	1	17.042	17.058	-0.016	380835	1.00	0.9390	
19 1,3,5-Trinitrobenzene	1	17.262	17.272	-0.010	403965	1.00	0.9540	
20 2,6-Dinitrotoluene	1	18.349	18.365	-0.016	265267	1.00	0.9543	
21 2,4-Dinitrotoluene	1	18.802	18.818	-0.016	536407	1.00	0.9673	
22 Tetryl	1	22.003	22.025	-0.022	310388	1.00	0.99	
23 2,4,6-Trinitrotoluene	1	22.863	22.878	-0.015	398830	1.00	1.00	M
24 PETN	2	24.009	24.032	-0.023	1228090	10.0	9.95	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 100.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d

Injection Date: 24-Apr-2024 22:04:12

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 8

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

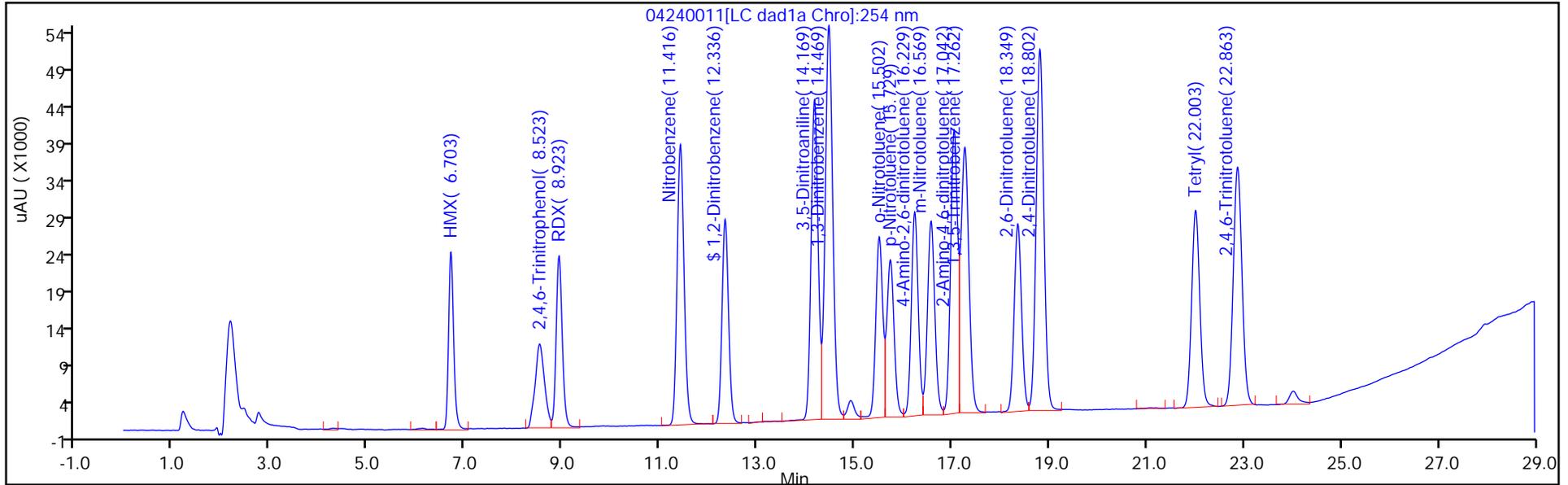
ALS Bottle#: 11

Method: G2_8330_Luna

Limit Group: GCSV - 8330

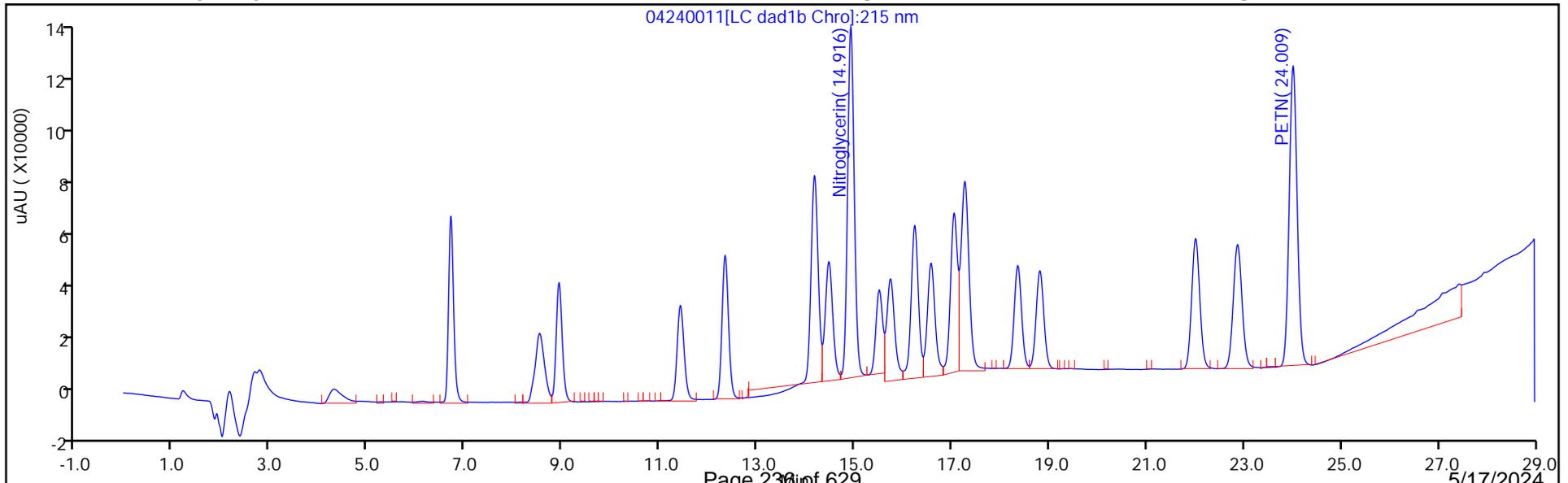
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

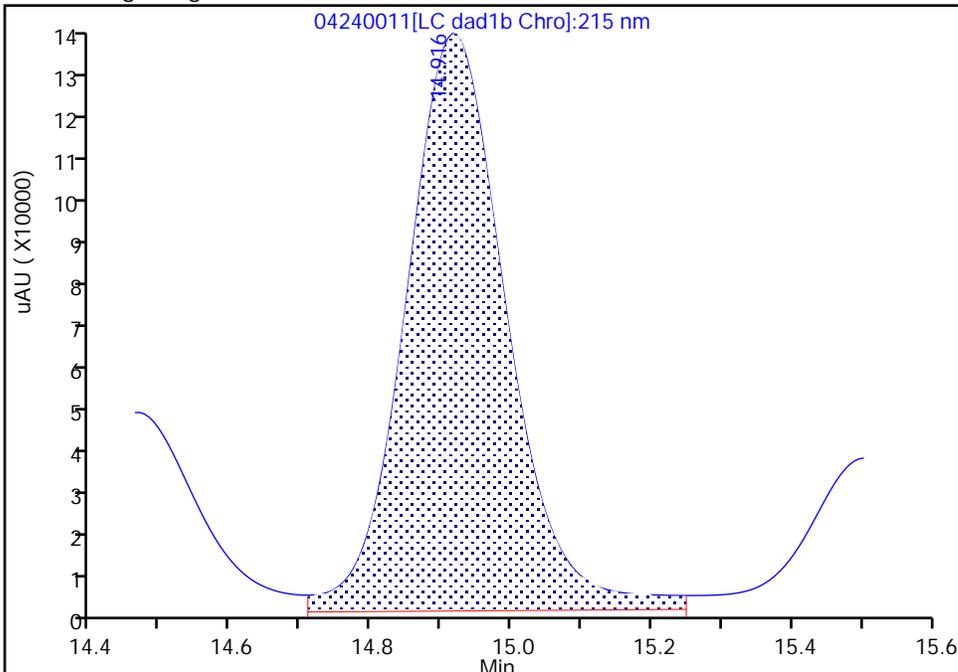
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d
Injection Date: 24-Apr-2024 22:04:12 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

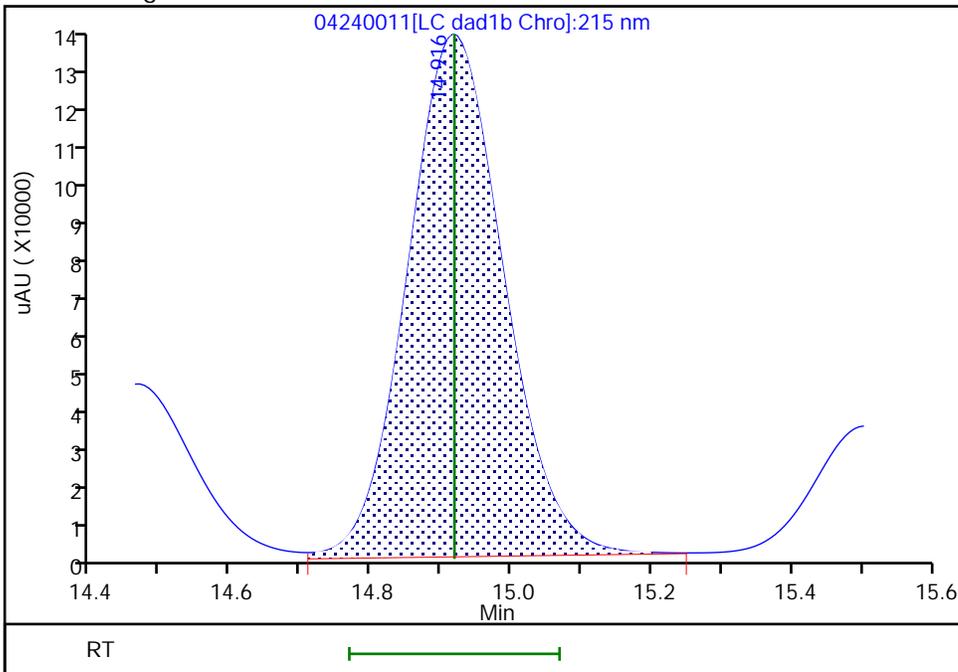
RT: 14.92
Area: 1281389
Amount: 4.919304
Amount Units: ug/ml

Processing Integration Results



RT: 14.92
Area: 1192597
Amount: 9.979493
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:11:13 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

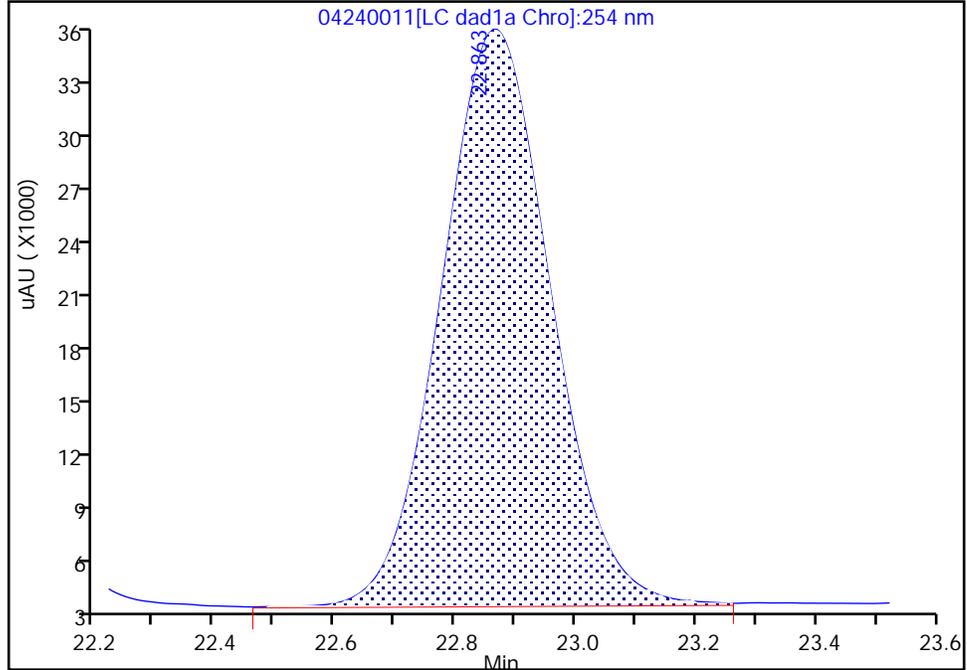
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d
Injection Date: 24-Apr-2024 22:04:12 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

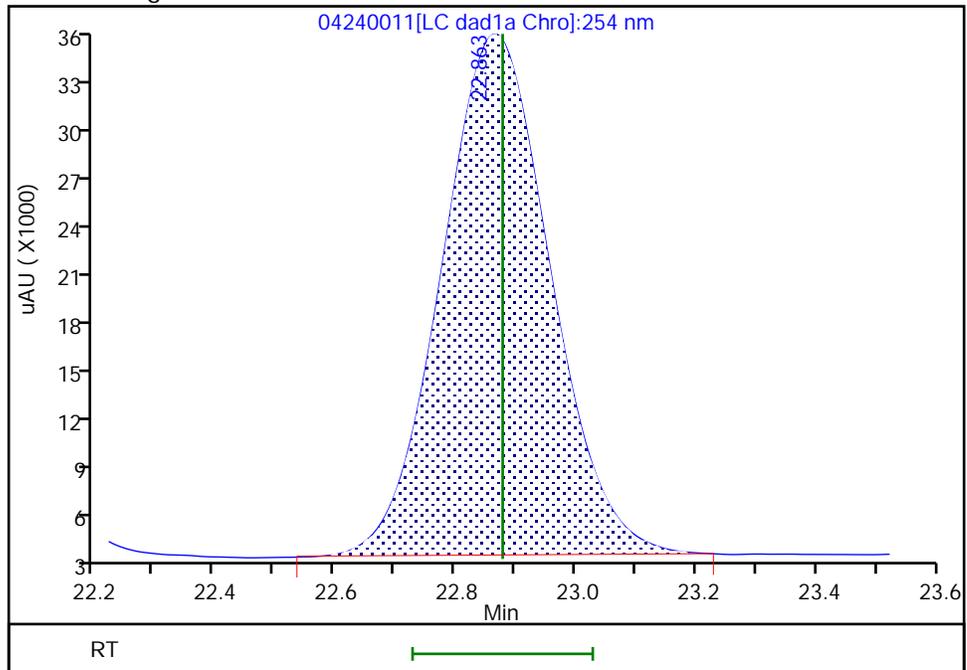
RT: 22.86
Area: 406074
Amount: 1.007347
Amount Units: ug/ml

Processing Integration Results



RT: 22.86
Area: 398830
Amount: 0.997667
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:37:30 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240012.D
 Lims ID: IC INT 7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 24-Apr-2024 22:40:07 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:11 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.693	6.705	-0.012	121397	0.7000	0.6974	
5 2,4,6-Trinitrophenol	1	8.553	8.612	-0.059	105341	0.7000	0.6958	
8 RDX	1	8.927	8.938	-0.011	142066	0.7000	0.6882	
9 Nitrobenzene	1	11.426	11.425	0.001	265026	0.7000	0.6936	
\$ 10 1,2-Dinitrobenzene	1	12.346	12.345	0.001	180143	0.7000	0.6964	
11 3,5-Dinitroaniline	1	14.186	14.185	0.001	302587	0.7000	0.7004	
12 1,3-Dinitrobenzene	1	14.480	14.478	0.002	399408	0.7000	0.6776	
13 Nitroglycerin	2	14.940	14.918	0.022	843844	7.00	7.06	M
14 o-Nitrotoluene	1	15.526	15.505	0.021	169093	0.7000	0.6913	
15 p-Nitrotoluene	1	15.753	15.738	0.015	154841	0.7000	0.7070	
16 4-Amino-2,6-dinitrotoluene	1	16.253	16.245	0.008	189660	0.7000	0.7010	
17 m-Nitrotoluene	1	16.586	16.578	0.008	194048	0.7000	0.7006	
18 2-Amino-4,6-dinitrotoluene	1	17.066	17.058	0.008	270634	0.7000	0.6673	
19 1,3,5-Trinitrobenzene	1	17.280	17.272	0.008	283624	0.7000	0.6698	
20 2,6-Dinitrotoluene	1	18.373	18.365	0.008	187213	0.7000	0.6735	
21 2,4-Dinitrotoluene	1	18.826	18.818	0.008	379151	0.7000	0.6837	
22 Tetryl	1	22.020	22.025	-0.005	219045	0.7000	0.7007	
23 2,4,6-Trinitrotoluene	1	22.873	22.878	-0.005	279268	0.7000	0.6986	M
24 PETN	2	24.013	24.032	-0.019	865110	7.00	7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 70.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d

Injection Date: 24-Apr-2024 22:40:07

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 7

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

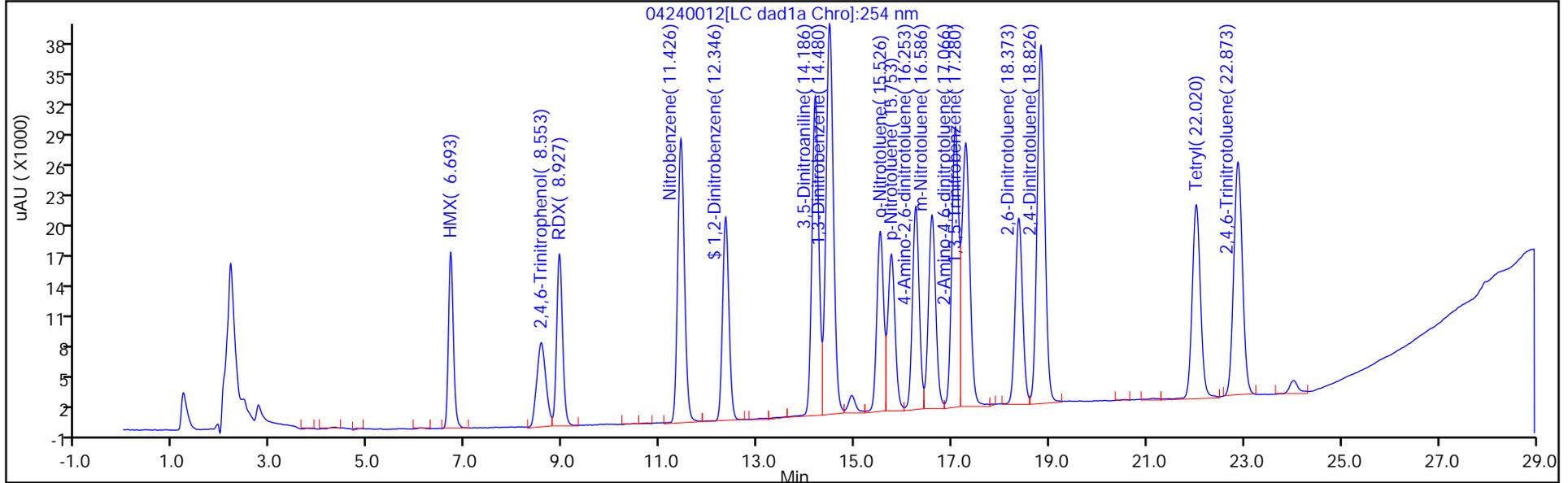
ALS Bottle#: 12

Method: G2_8330_Luna

Limit Group: GCSV - 8330

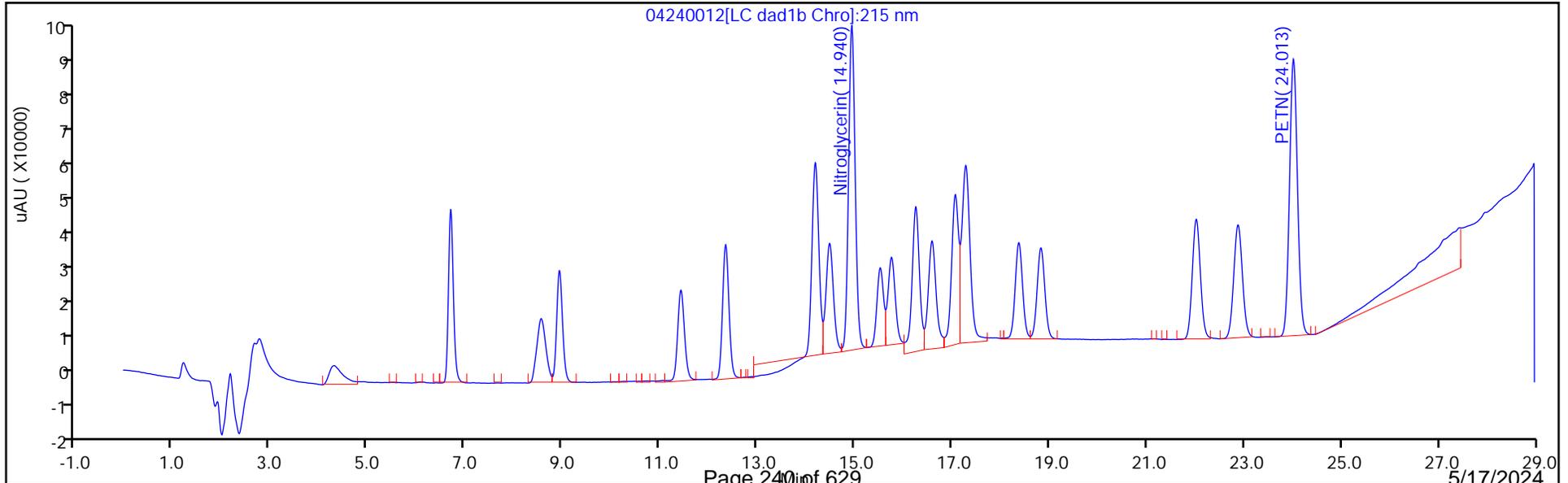
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

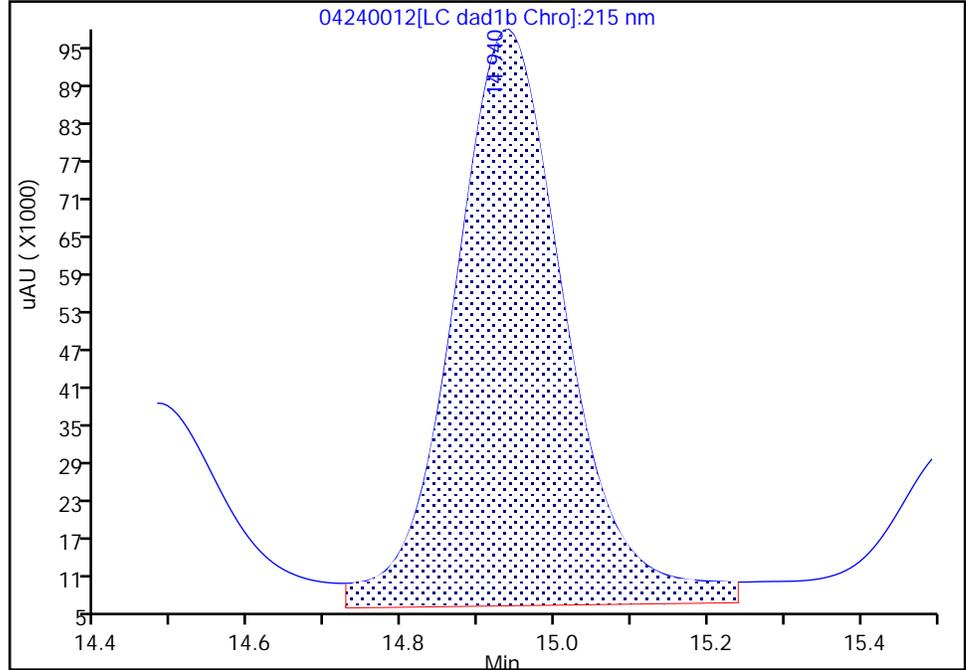
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d
Injection Date: 24-Apr-2024 22:40:07 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

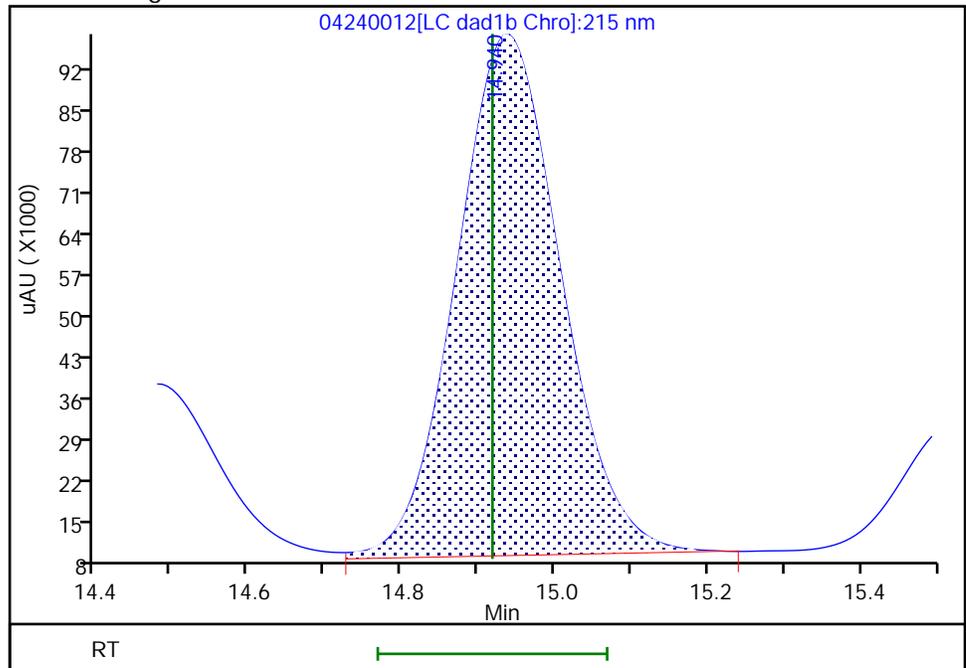
RT: 14.94
Area: 942019
Amount: 3.630198
Amount Units: ug/ml

Processing Integration Results



RT: 14.94
Area: 843844
Amount: 7.061175
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:17 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

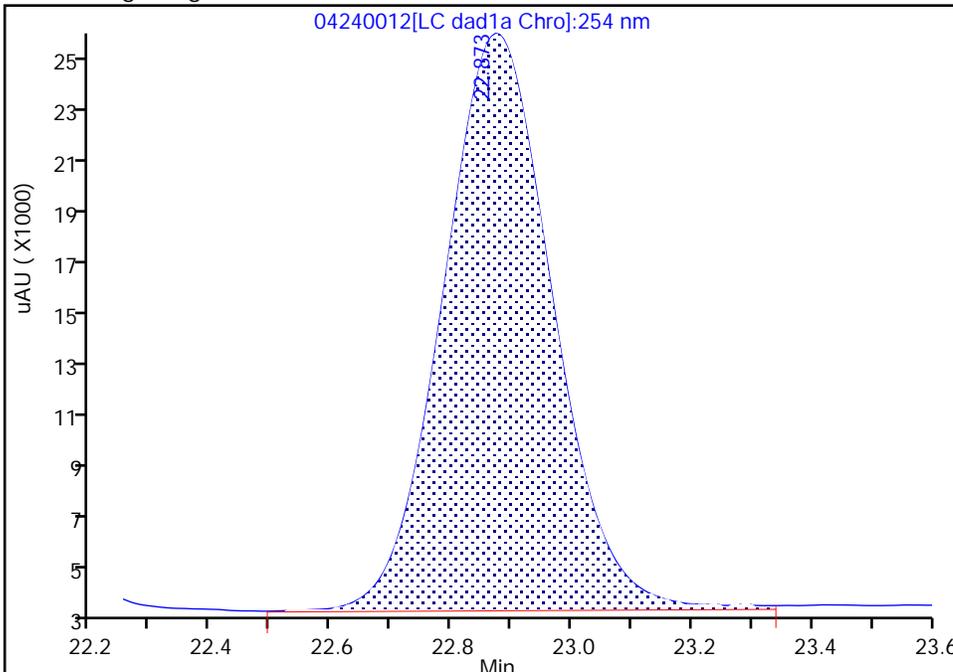
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d
Injection Date: 24-Apr-2024 22:40:07 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

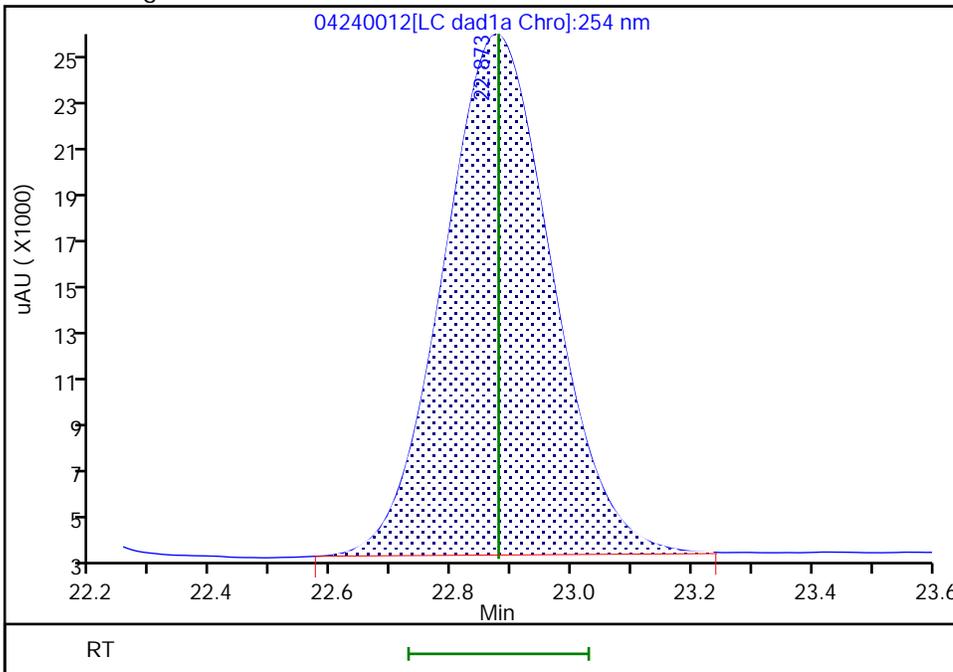
Processing Integration Results

RT: 22.87
Area: 285759
Amount: 0.707074
Amount Units: ug/ml



Manual Integration Results

RT: 22.87
Area: 279268
Amount: 0.698585
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:19 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240013.D
 Lims ID: IC INT 6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 24-Apr-2024 23:16:01 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:12 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.700	6.705	-0.005	70323	0.4000	0.4040	
5 2,4,6-Trinitrophenol	1	8.587	8.612	-0.025	60435	0.4000	0.3992	
8 RDX	1	8.927	8.938	-0.011	83185	0.4000	0.4019	
9 Nitrobenzene	1	11.420	11.425	-0.005	153657	0.4000	0.4021	
\$ 10 1,2-Dinitrobenzene	1	12.340	12.345	-0.005	104562	0.4000	0.4042	
11 3,5-Dinitroaniline	1	14.180	14.185	-0.005	175740	0.4000	0.4059	M
12 1,3-Dinitrobenzene	1	14.473	14.478	-0.005	231256	0.4000	0.3923	M
13 Nitroglycerin	2	14.920	14.918	0.002	496432	4.00	4.15	M
14 o-Nitrotoluene	1	15.507	15.505	0.002	96839	0.4000	0.3959	M
15 p-Nitrotoluene	1	15.740	15.738	0.002	89334	0.4000	0.4061	M
16 4-Amino-2,6-dinitrotoluene	1	16.240	16.245	-0.005	109971	0.4000	0.4053	M
17 m-Nitrotoluene	1	16.573	16.578	-0.005	112076	0.4000	0.4032	M
18 2-Amino-4,6-dinitrotoluene	1	17.053	17.058	-0.005	156312	0.4000	0.3854	M
19 1,3,5-Trinitrobenzene	1	17.267	17.272	-0.005	162815	0.4000	0.3845	M
20 2,6-Dinitrotoluene	1	18.353	18.365	-0.012	107267	0.4000	0.3859	M
21 2,4-Dinitrotoluene	1	18.807	18.818	-0.011	216895	0.4000	0.3911	M
22 Tetryl	1	22.007	22.025	-0.018	125893	0.4000	0.4021	
23 2,4,6-Trinitrotoluene	1	22.874	22.878	-0.004	160072	0.4000	0.4004	M
24 PETN	2	24.014	24.032	-0.018	492803	4.00	4.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 40.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d

Injection Date: 24-Apr-2024 23:16:01

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 6

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

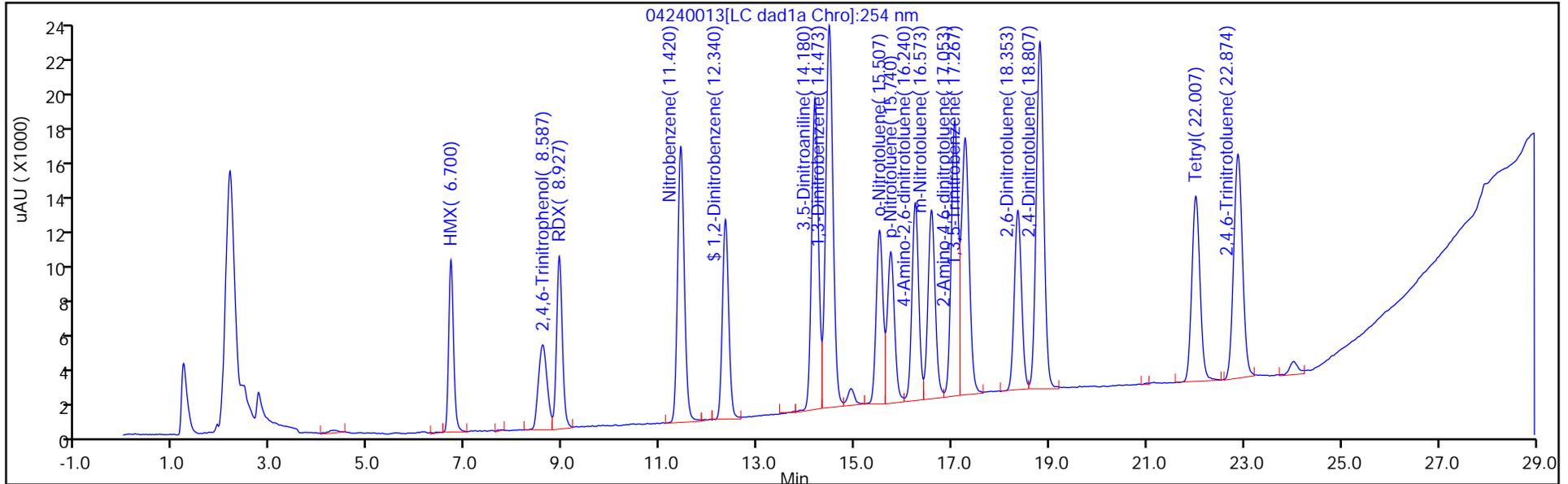
ALS Bottle#: 13

Method: G2_8330_Luna

Limit Group: GCSV - 8330

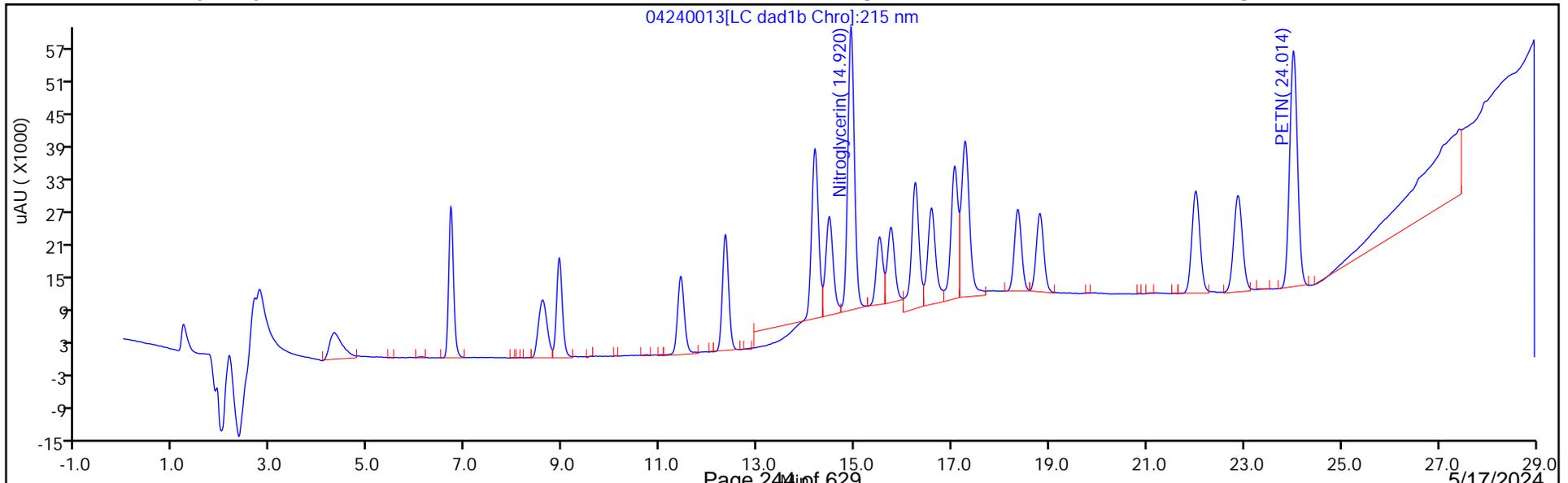
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

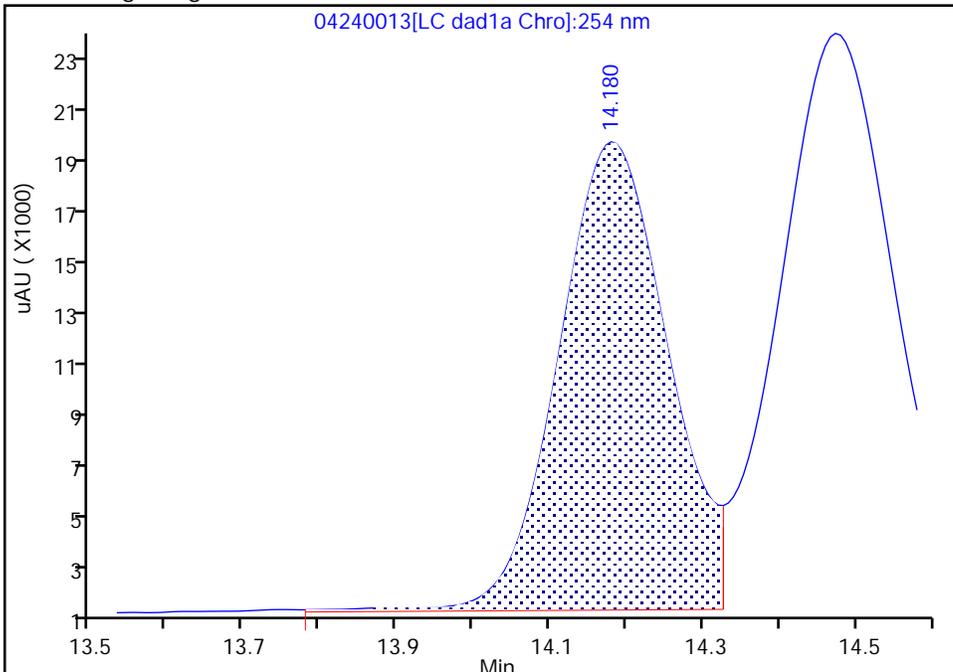
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
 Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 6
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

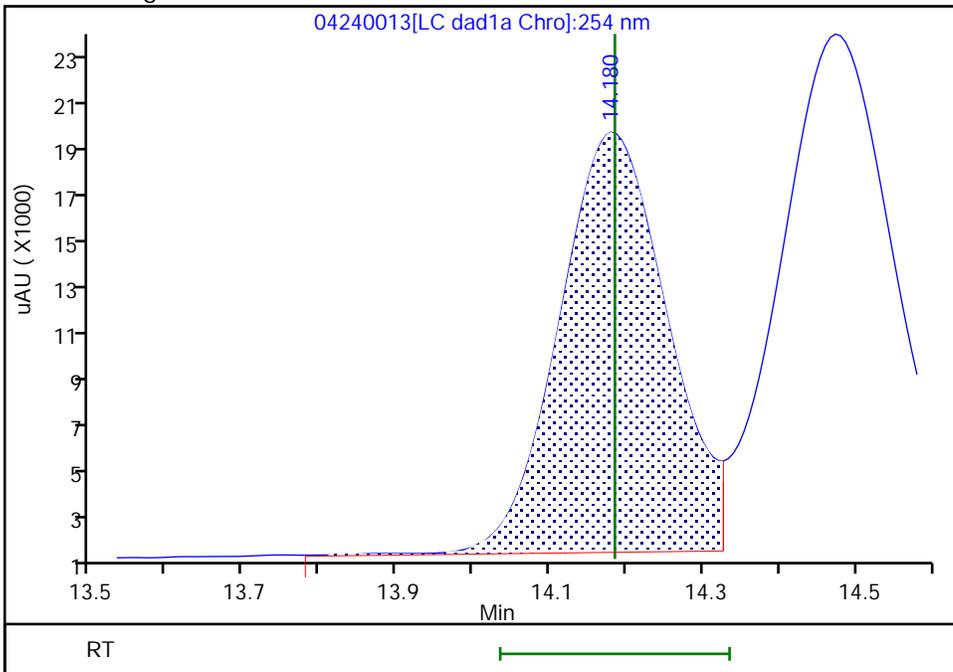
RT: 14.18
 Area: 177544
 Amount: 0.403629
 Amount Units: ug/ml

Processing Integration Results



RT: 14.18
 Area: 175740
 Amount: 0.405875
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

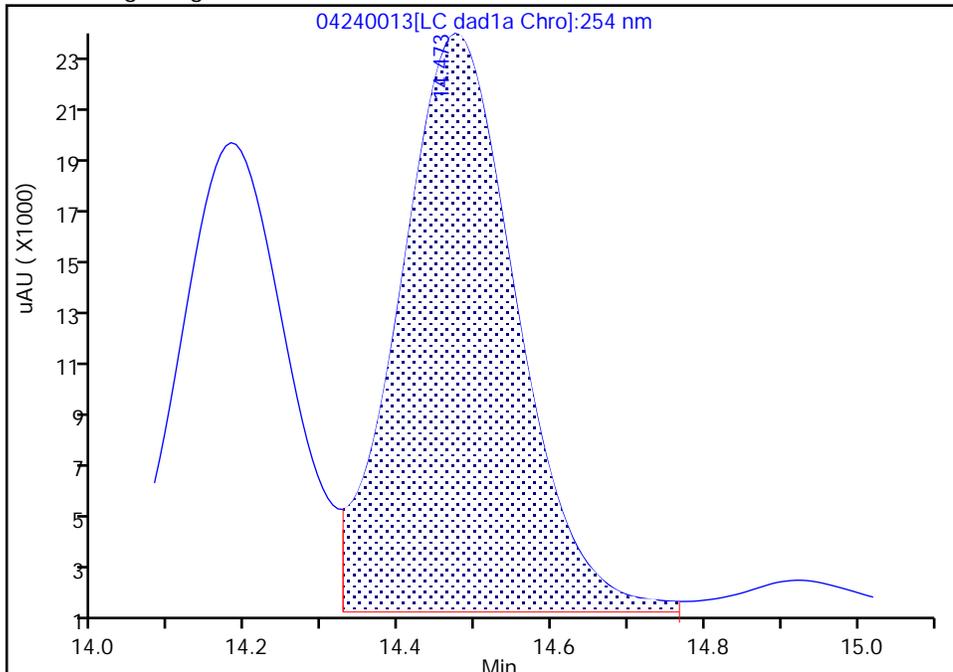
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

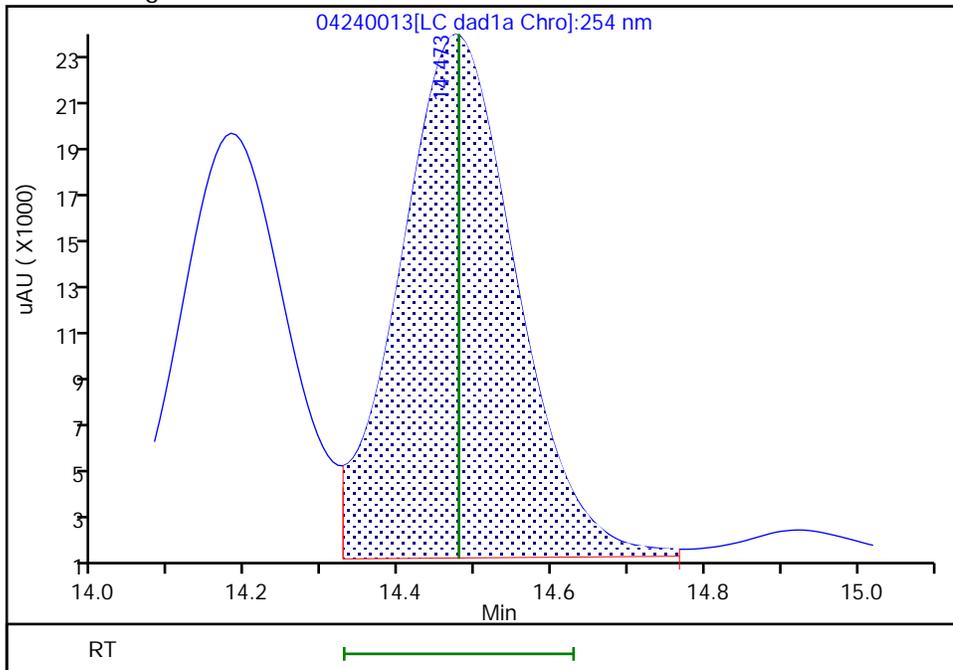
RT: 14.47
Area: 233896
Amount: 0.368762
Amount Units: ug/ml

Processing Integration Results



RT: 14.47
Area: 231256
Amount: 0.392346
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

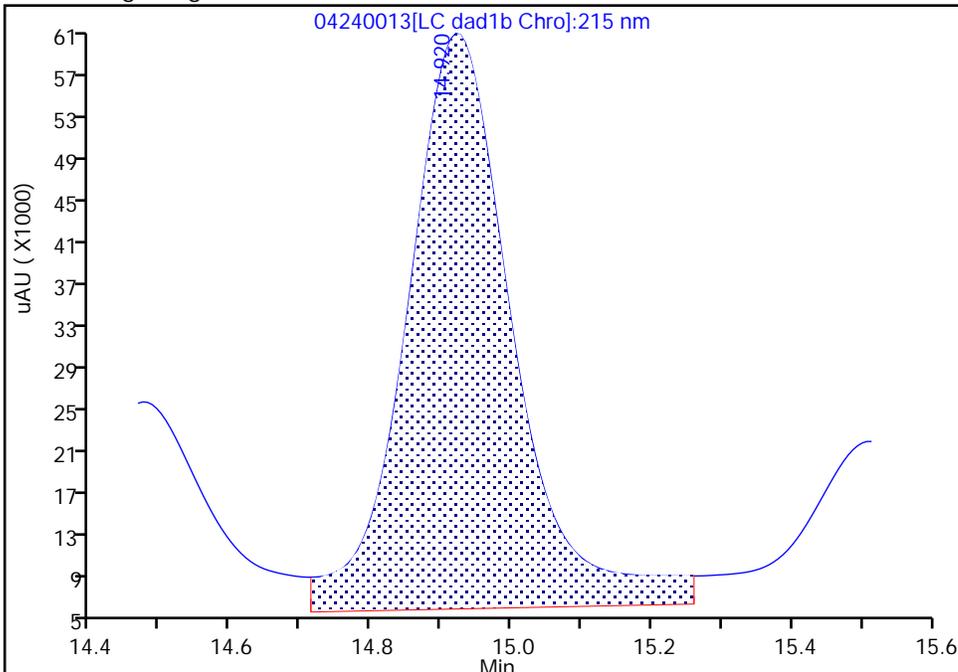
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

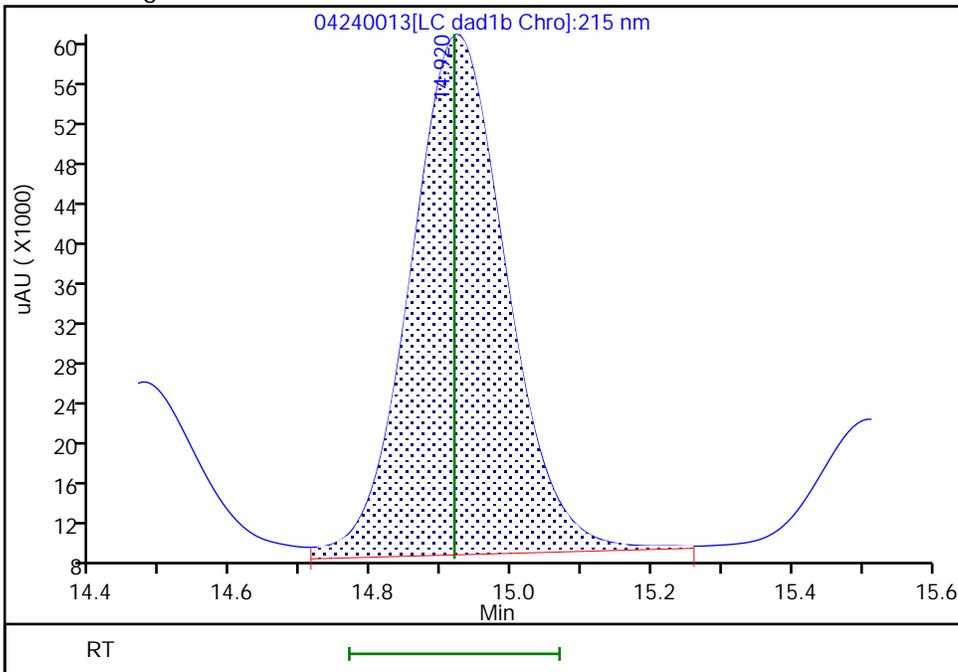
RT: 14.92
Area: 575135
Amount: 2.229751
Amount Units: ug/ml

Processing Integration Results



RT: 14.92
Area: 496432
Amount: 4.154077
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

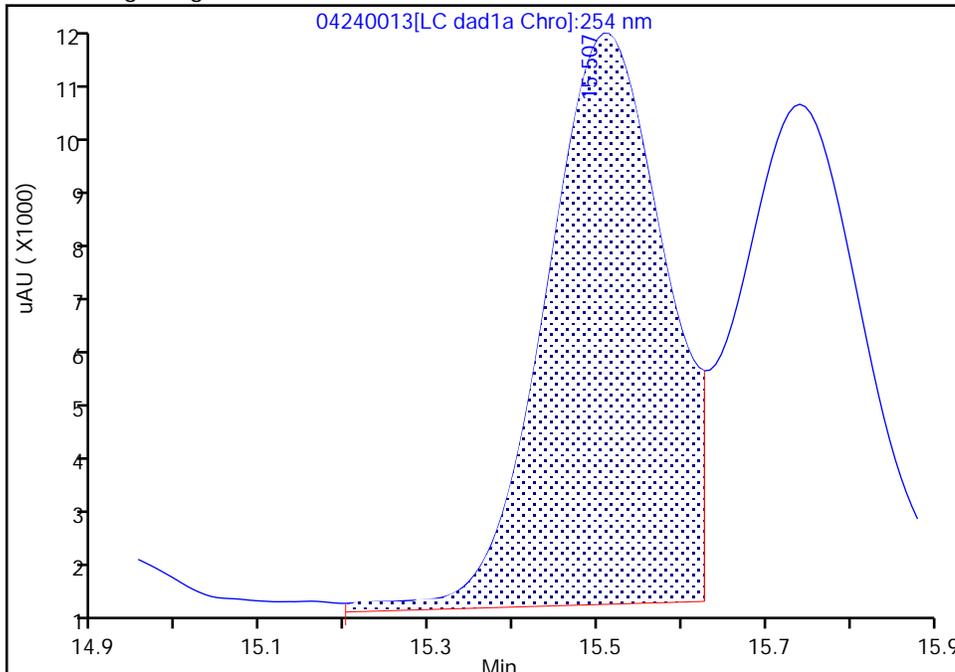
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

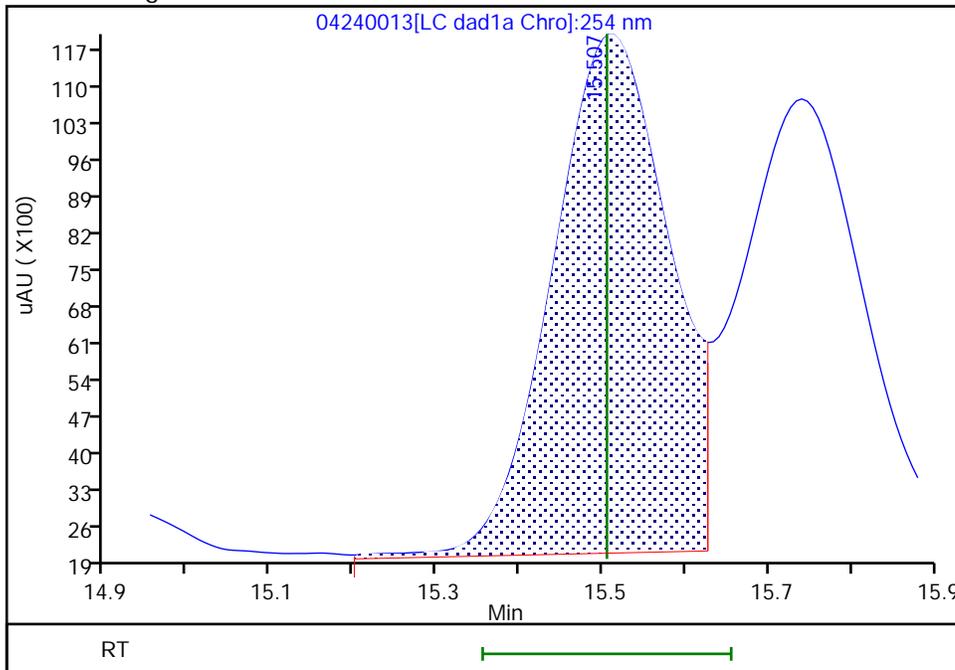
RT: 15.51
Area: 98708
Amount: 0.357016
Amount Units: ug/ml

Processing Integration Results



RT: 15.51
Area: 96839
Amount: 0.395917
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

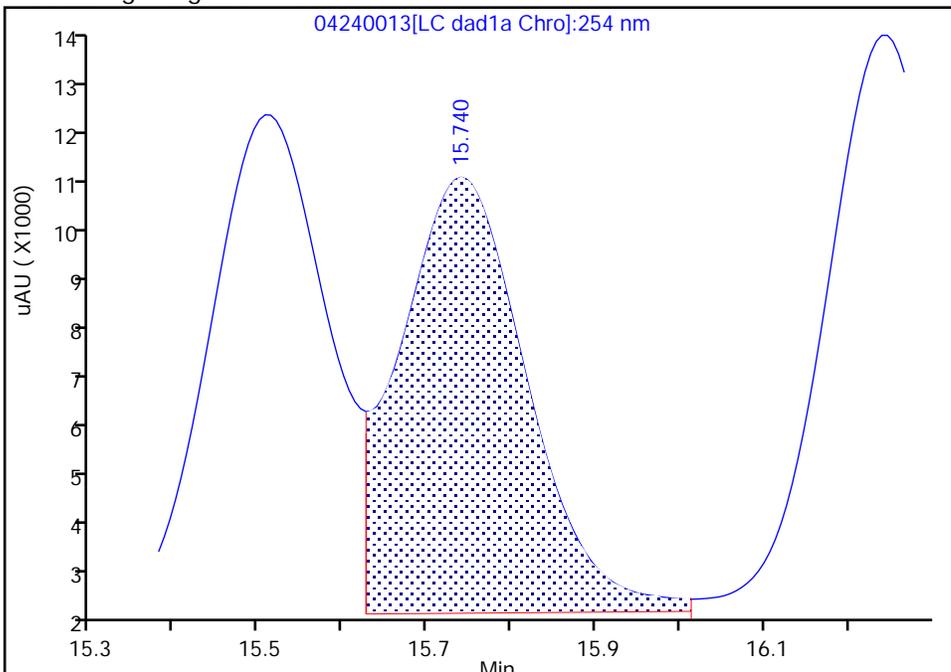
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

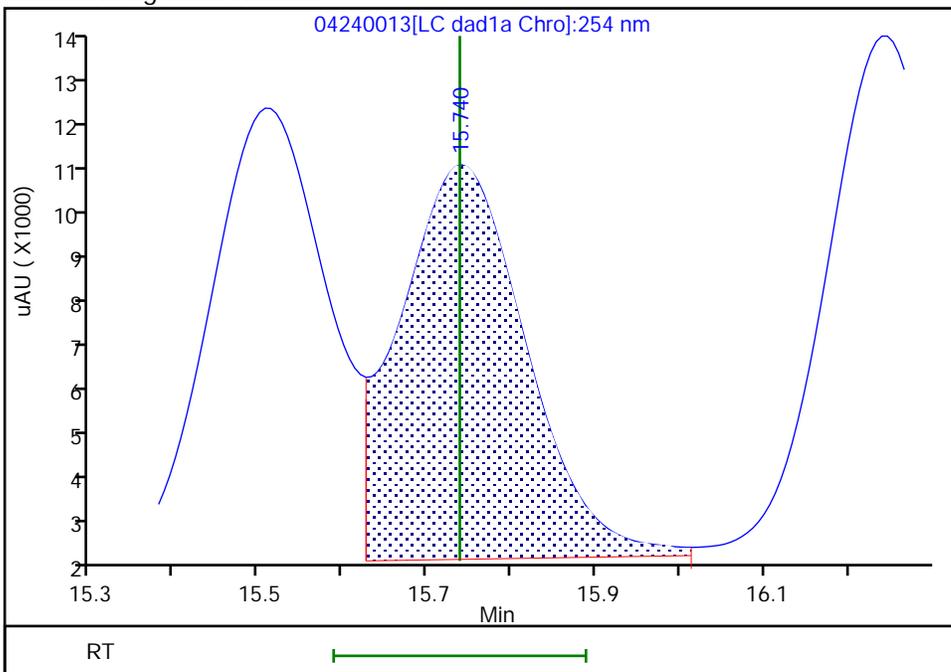
RT: 15.74
Area: 90760
Amount: 0.406111
Amount Units: ug/ml

Processing Integration Results



RT: 15.74
Area: 89334
Amount: 0.406098
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

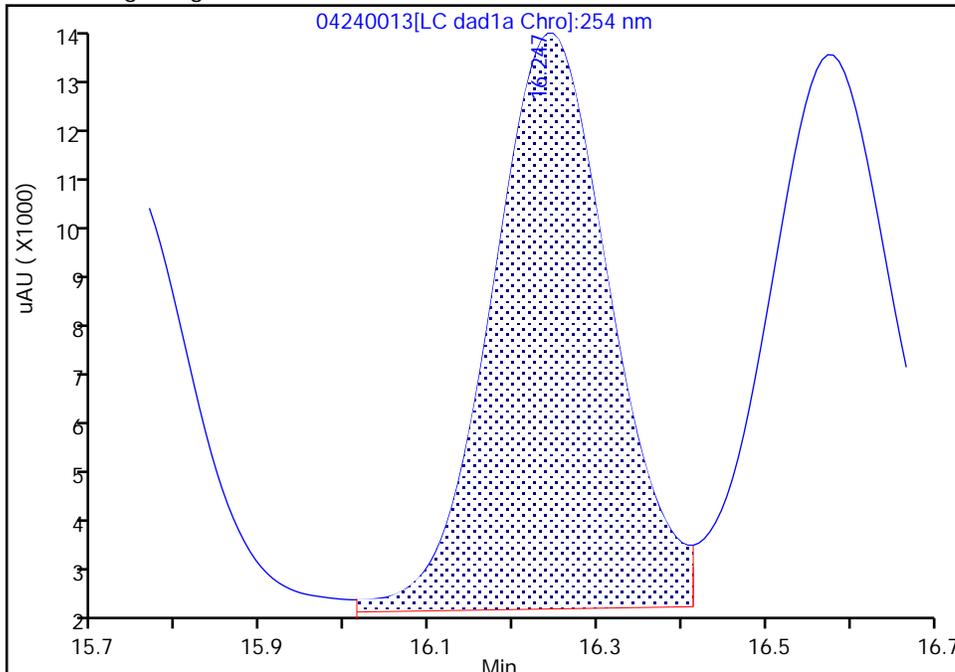
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

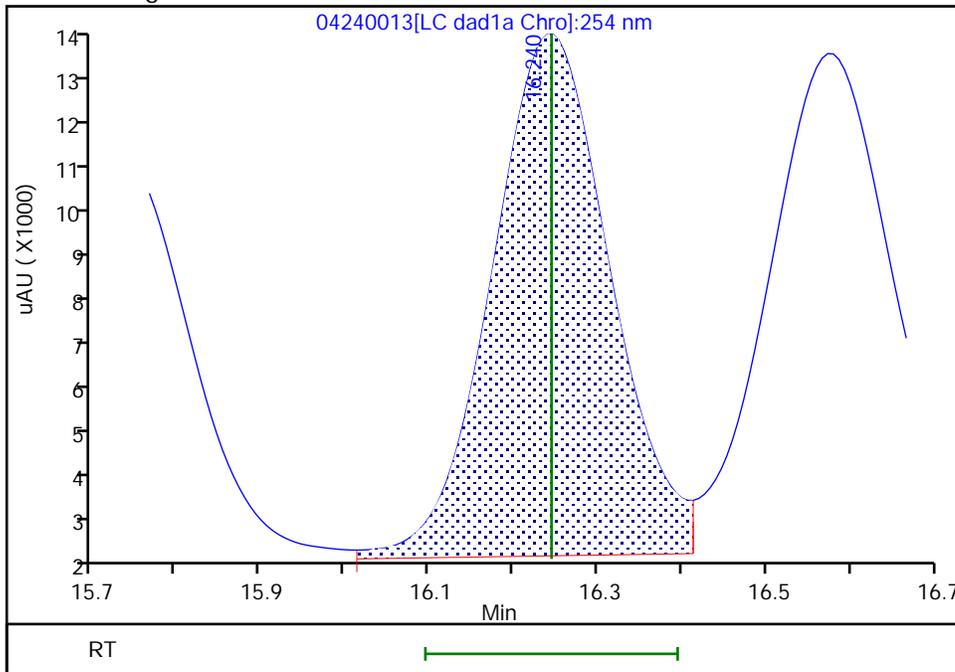
RT: 16.25
Area: 111651
Amount: 0.405375
Amount Units: ug/ml

Processing Integration Results



RT: 16.24
Area: 109971
Amount: 0.405284
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

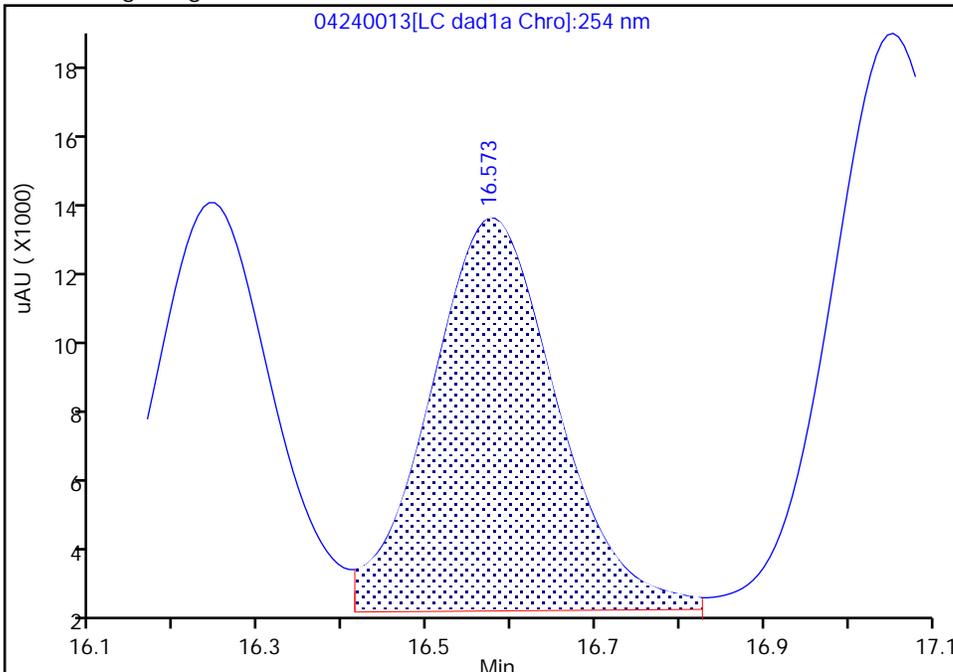
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

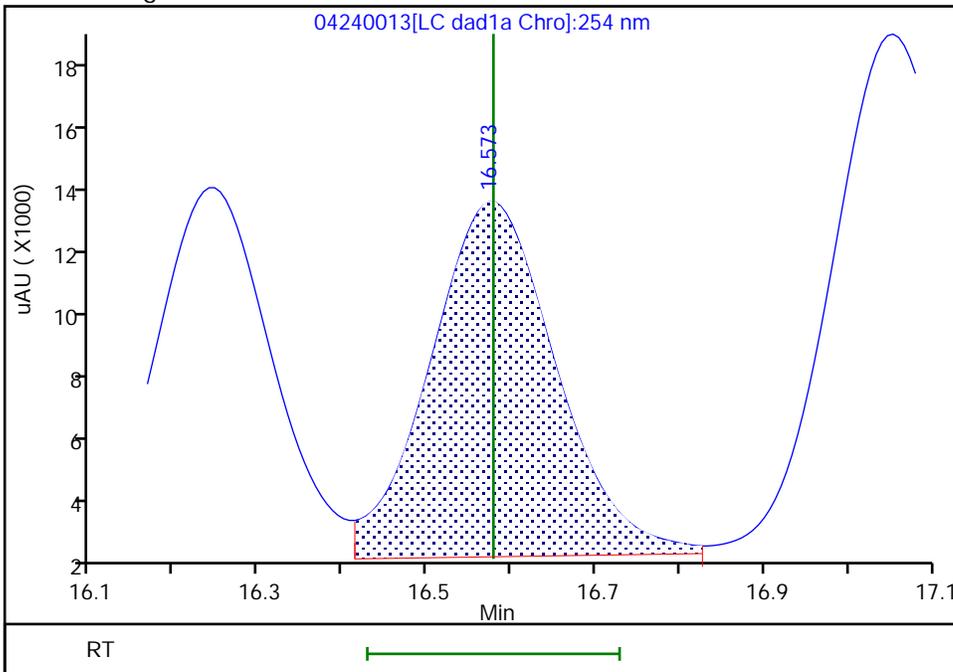
RT: 16.57
Area: 113378
Amount: 0.394279
Amount Units: ug/ml

Processing Integration Results



RT: 16.57
Area: 112076
Amount: 0.403164
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

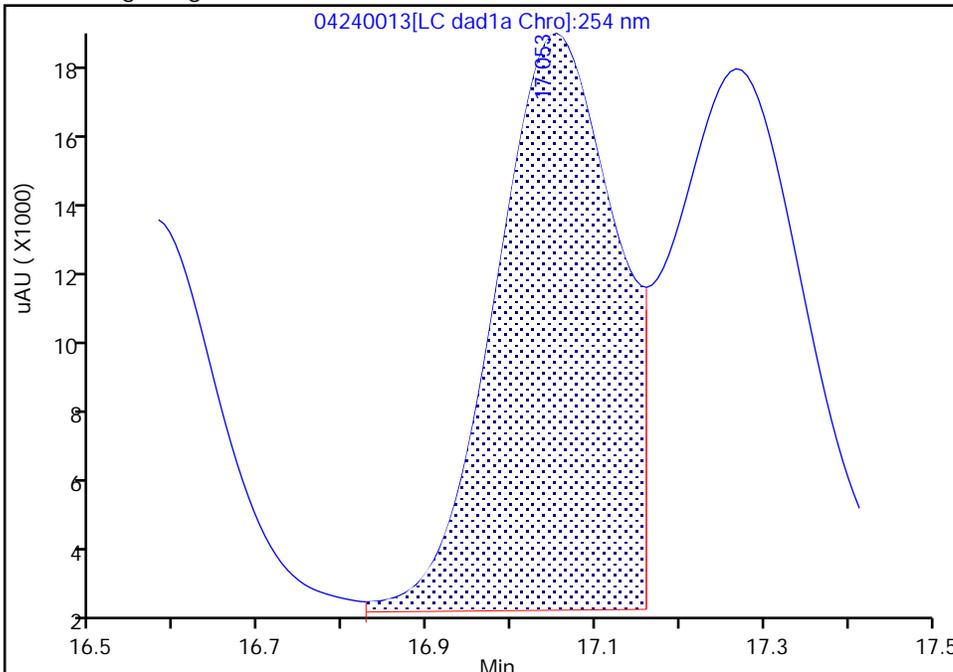
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
 Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 6
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

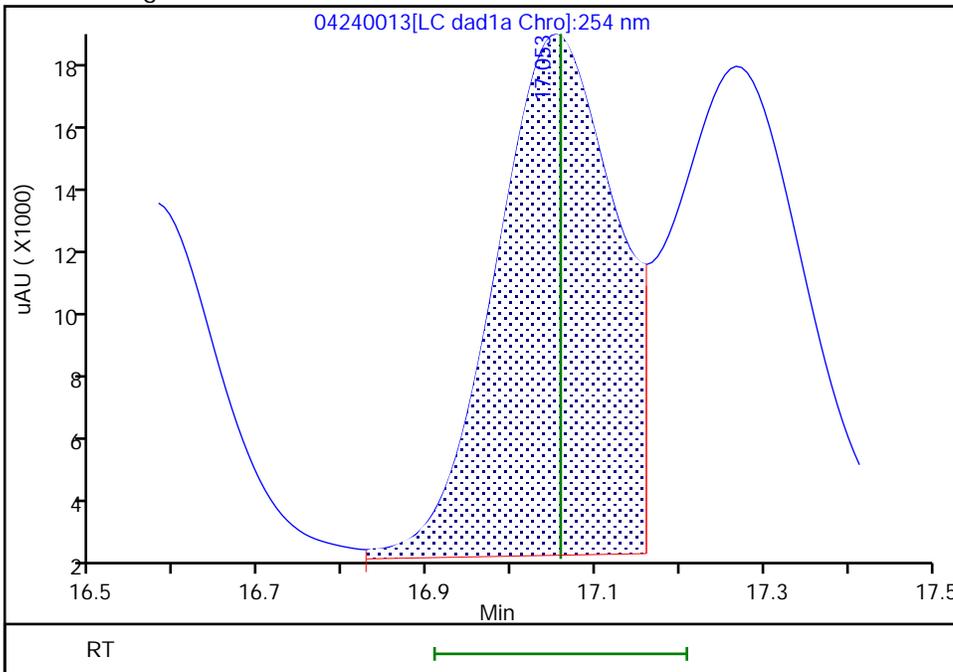
Processing Integration Results

RT: 17.05
 Area: 157172
 Amount: 0.405879
 Amount Units: ug/ml



Manual Integration Results

RT: 17.05
 Area: 156312
 Amount: 0.385421
 Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

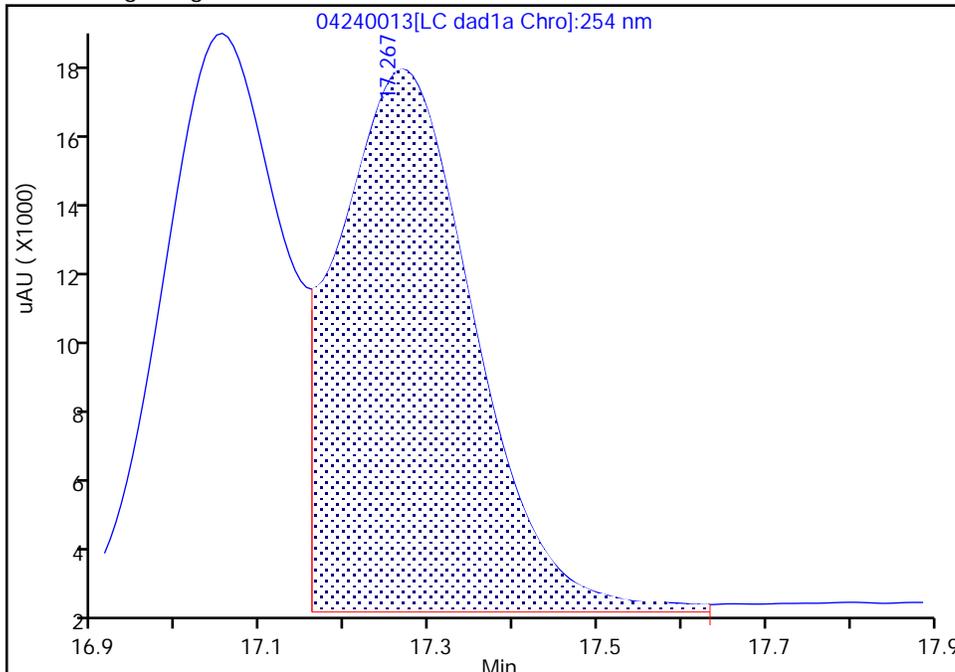
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

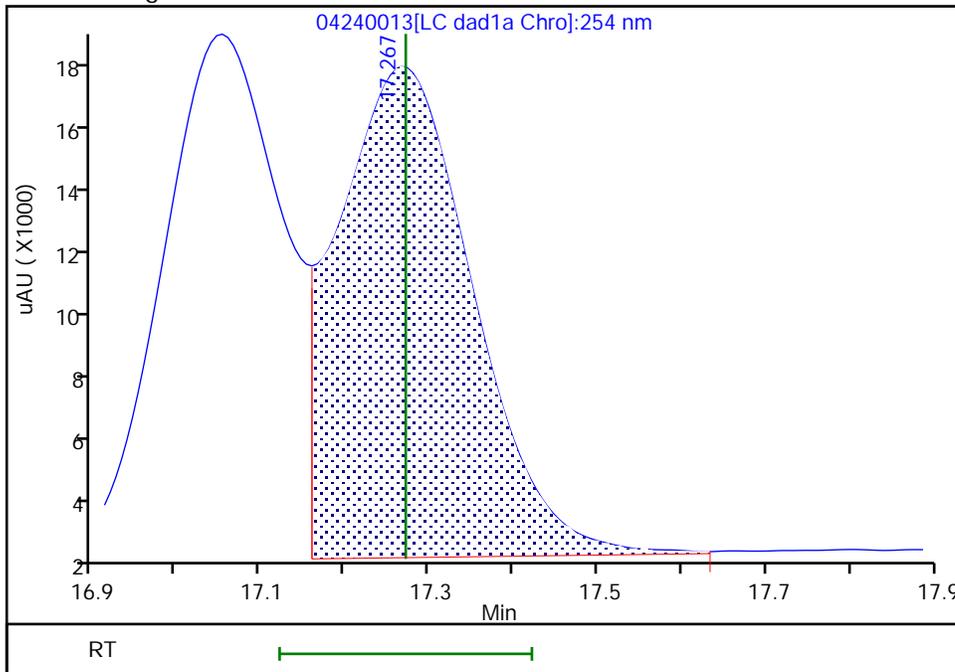
RT: 17.27
Area: 165257
Amount: 0.352733
Amount Units: ug/ml

Processing Integration Results



RT: 17.27
Area: 162815
Amount: 0.384492
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

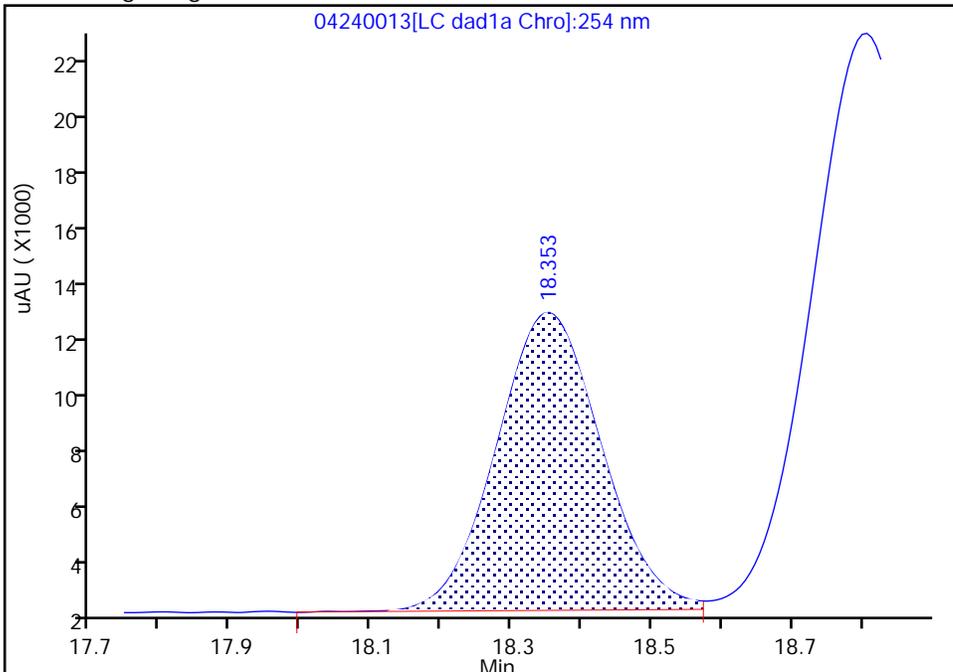
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

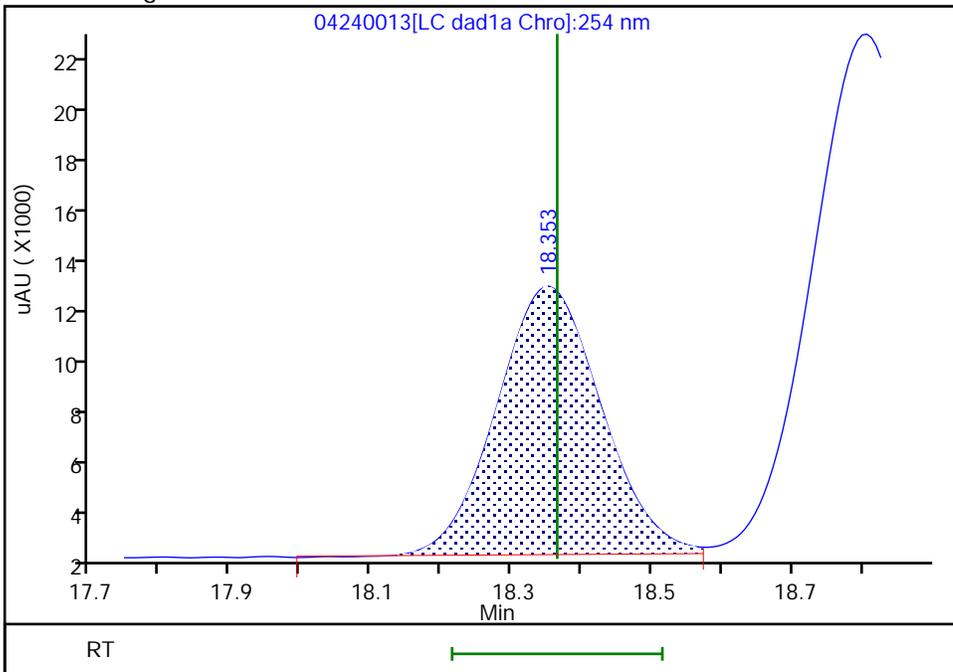
RT: 18.35
Area: 107632
Amount: 0.396872
Amount Units: ug/ml

Processing Integration Results



RT: 18.35
Area: 107267
Amount: 0.385894
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

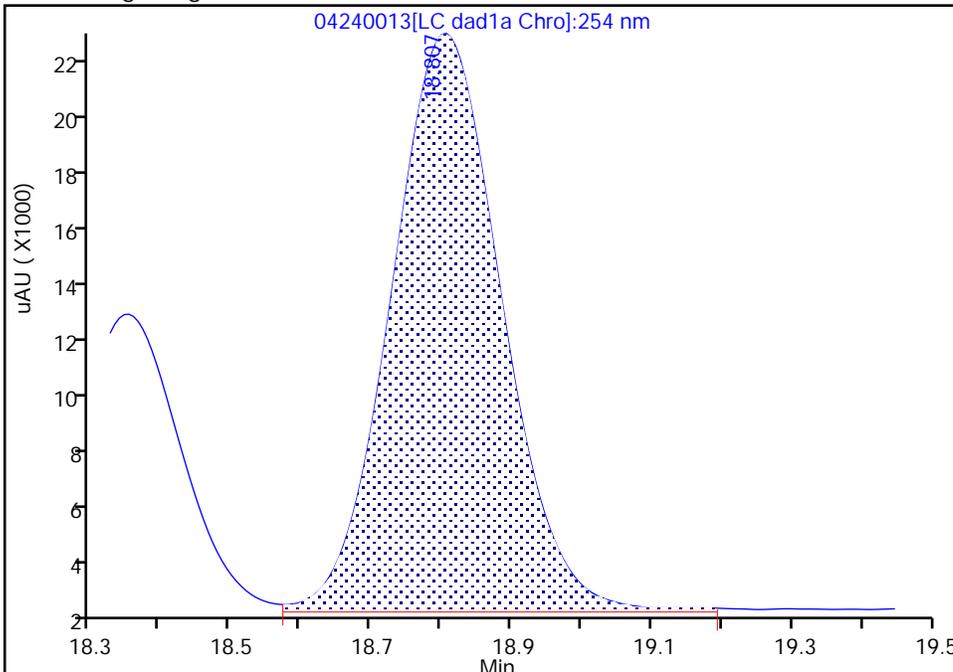
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

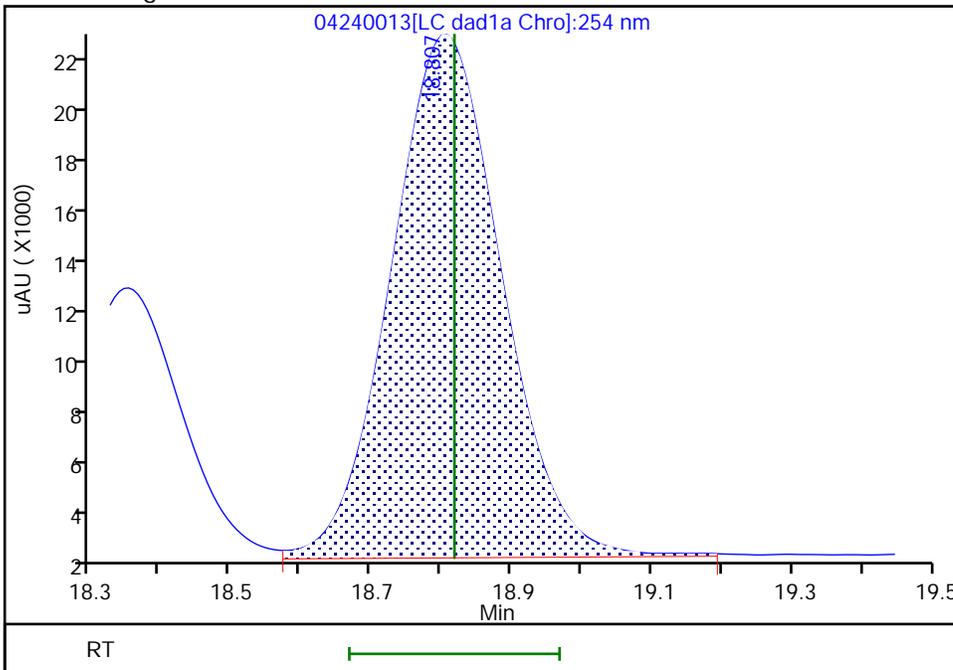
RT: 18.81
Area: 218104
Amount: 0.366137
Amount Units: ug/ml

Processing Integration Results



RT: 18.81
Area: 216895
Amount: 0.391109
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

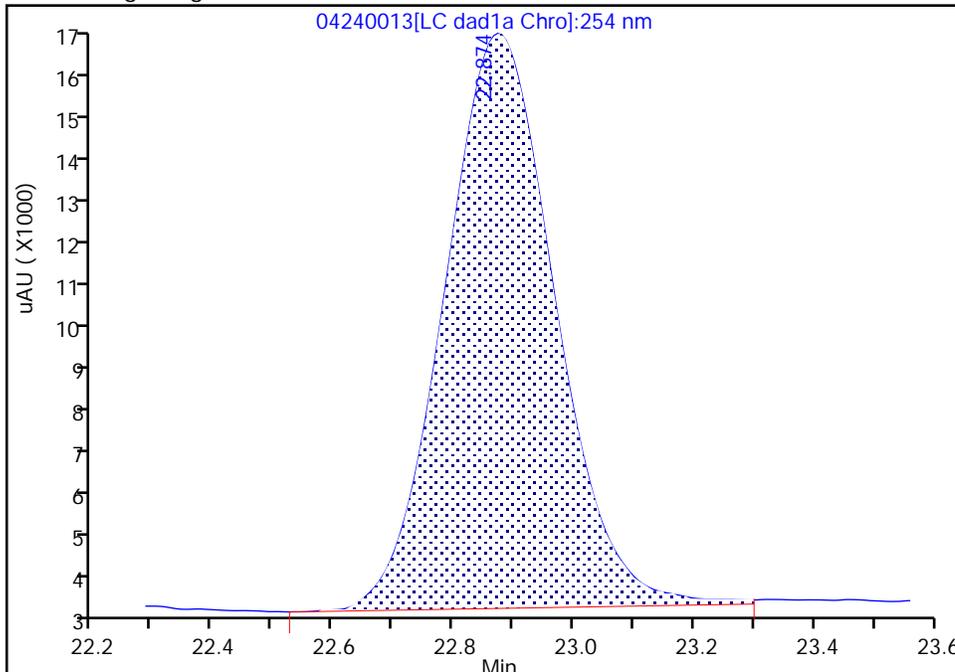
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

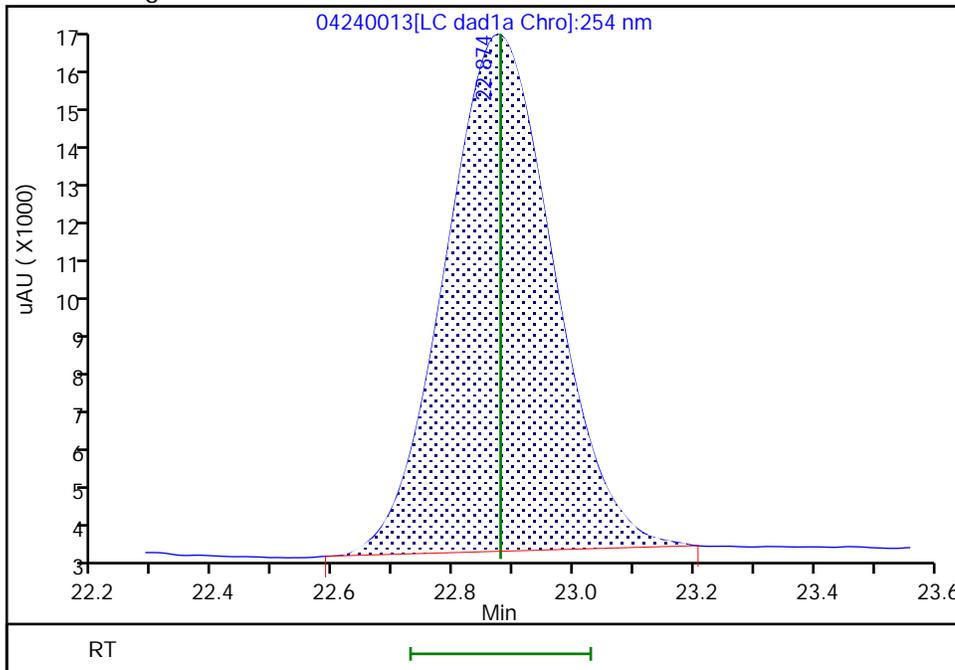
RT: 22.87
Area: 164610
Amount: 0.409165
Amount Units: ug/ml

Processing Integration Results



RT: 22.87
Area: 160072
Amount: 0.400418
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:37:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240014.D
 Lims ID: IC INT 5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 24-Apr-2024 23:51:59 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:13 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.705	6.705	0.000	43487	0.2500	0.2498	
5 2,4,6-Trinitrophenol	1	8.612	8.612	0.000	37043	0.2500	0.2447	
8 RDX	1	8.938	8.938	0.000	52707	0.2500	0.2537	
9 Nitrobenzene	1	11.425	11.425	0.000	93225	0.2500	0.2440	
\$ 10 1,2-Dinitrobenzene	1	12.345	12.345	0.000	64431	0.2500	0.2491	
11 3,5-Dinitroaniline	1	14.185	14.185	0.000	108023	0.2500	0.2487	M
12 1,3-Dinitrobenzene	1	14.478	14.478	0.000	143019	0.2500	0.2426	M
13 Nitroglycerin	2	14.918	14.918	0.000	309600	2.50	2.59	M
14 o-Nitrotoluene	1	15.505	15.505	0.000	58941	0.2500	0.2410	M
15 p-Nitrotoluene	1	15.738	15.738	0.000	54130	0.2500	0.2444	M
16 4-Amino-2,6-dinitrotoluene	1	16.245	16.245	0.000	67115	0.2500	0.2463	M
17 m-Nitrotoluene	1	16.578	16.578	0.000	68559	0.2500	0.2453	M
18 2-Amino-4,6-dinitrotoluene	1	17.058	17.058	0.000	95082	0.2500	0.2344	M
19 1,3,5-Trinitrobenzene	1	17.272	17.272	0.000	101067	0.2500	0.2387	M
20 2,6-Dinitrotoluene	1	18.365	18.365	0.000	66539	0.2500	0.2394	M
21 2,4-Dinitrotoluene	1	18.818	18.818	0.000	133579	0.2500	0.2409	M
22 Tetryl	1	22.025	22.025	0.000	79229	0.2500	0.2525	
23 2,4,6-Trinitrotoluene	1	22.878	22.878	0.000	100337	0.2500	0.2510	M
24 PETN	2	24.032	24.032	0.000	304928	2.50	2.48	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d

Injection Date: 24-Apr-2024 23:51:59

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 5

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

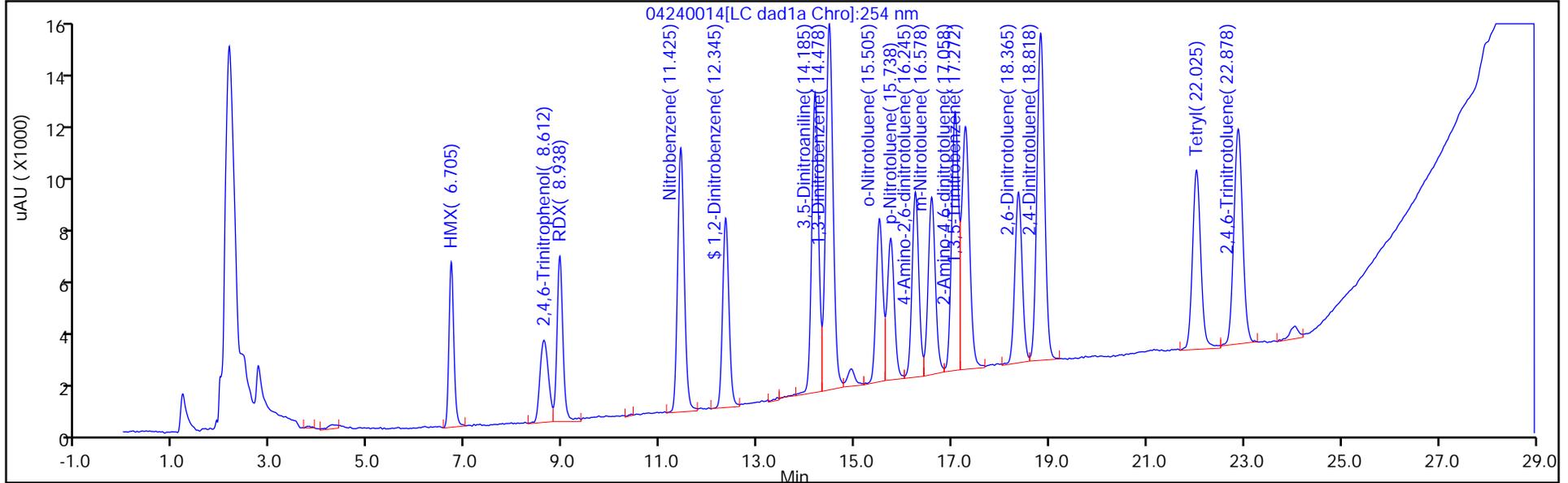
ALS Bottle#: 14

Method: G2_8330_Luna

Limit Group: GCSV - 8330

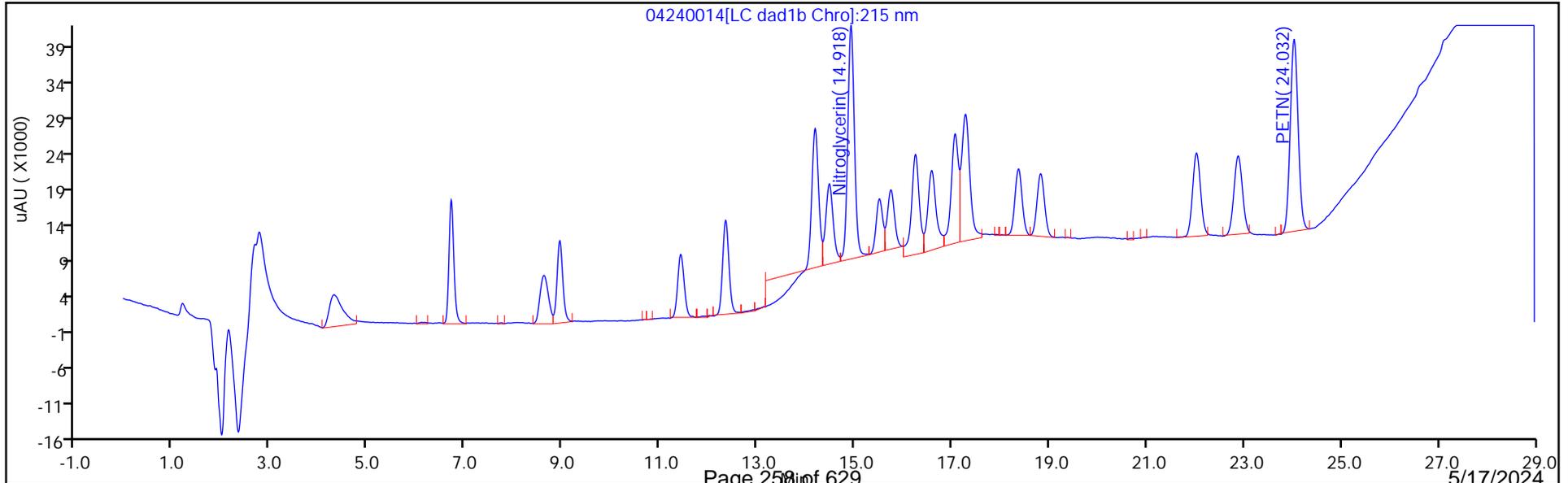
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

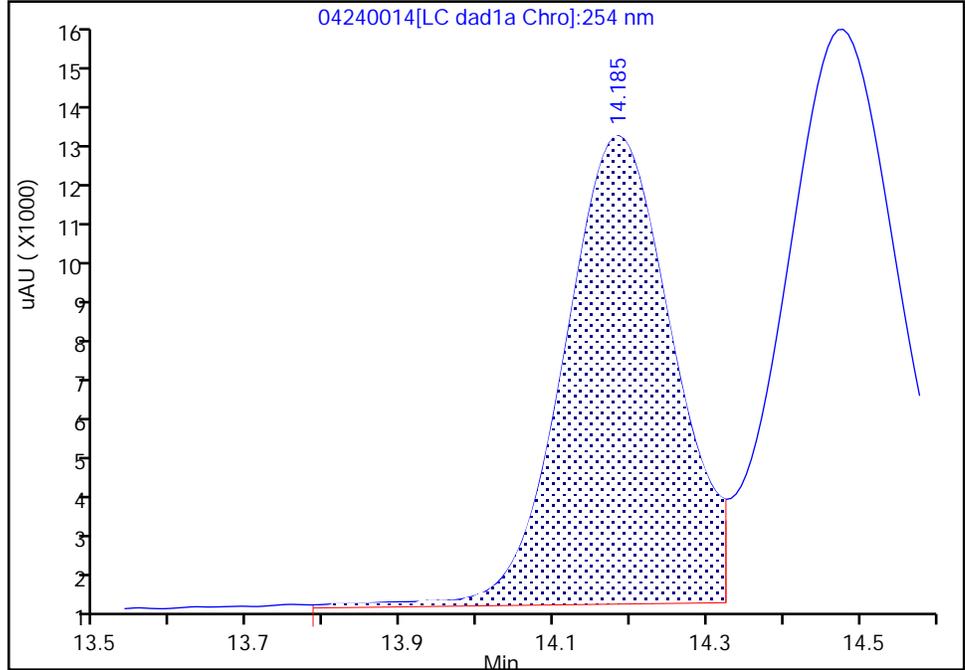
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

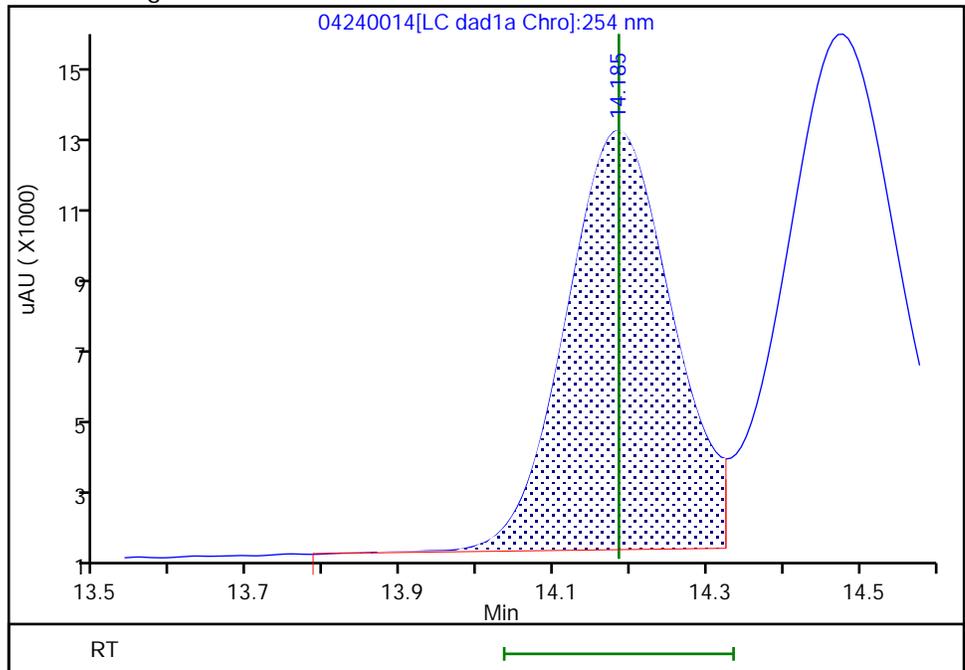
RT: 14.18
Area: 111068
Amount: 0.250808
Amount Units: ug/ml

Processing Integration Results



RT: 14.18
Area: 108023
Amount: 0.248660
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

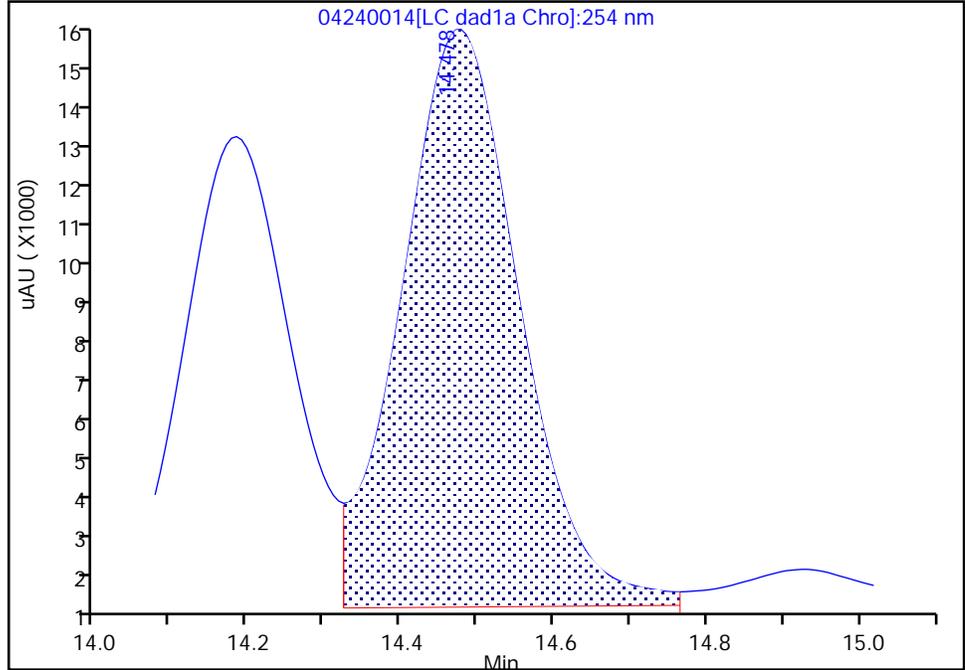
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

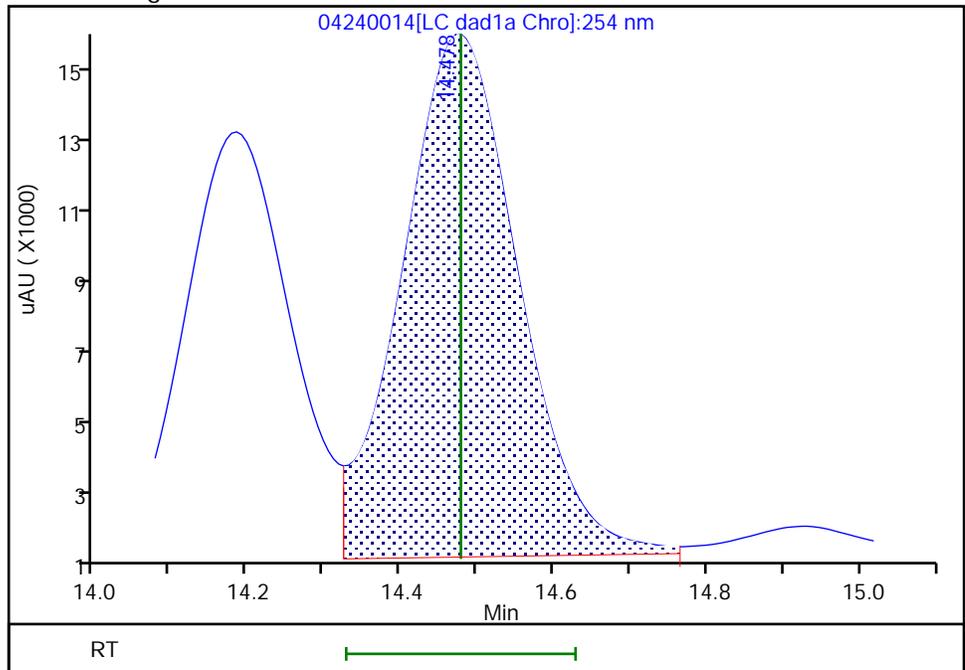
RT: 14.48
Area: 146583
Amount: 0.231371
Amount Units: ug/ml

Processing Integration Results



RT: 14.48
Area: 143019
Amount: 0.242644
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

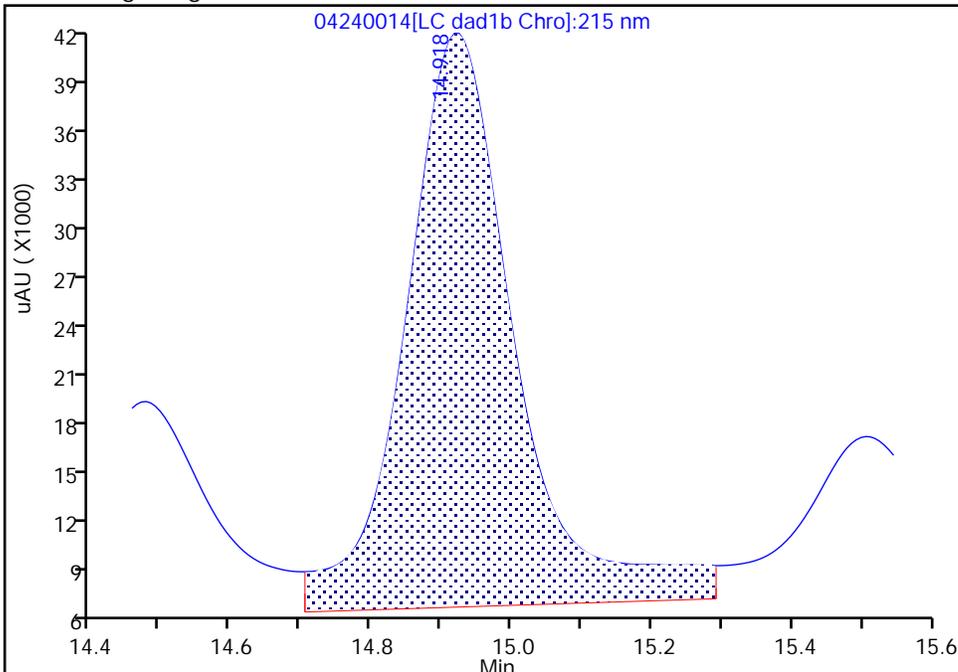
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

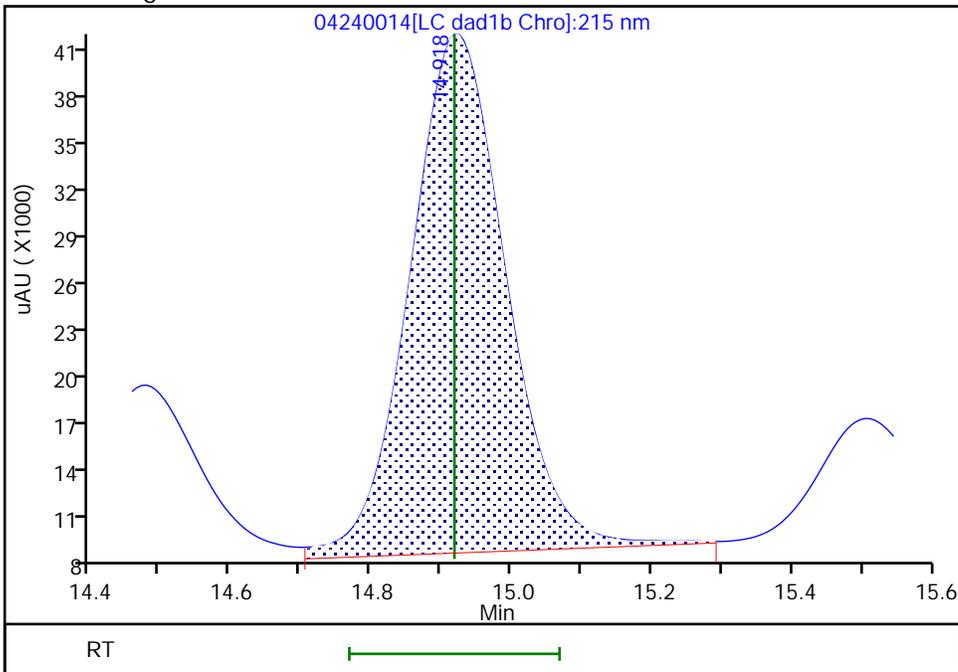
RT: 14.92
Area: 374650
Amount: 1.464903
Amount Units: ug/ml

Processing Integration Results



RT: 14.92
Area: 309600
Amount: 2.590692
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

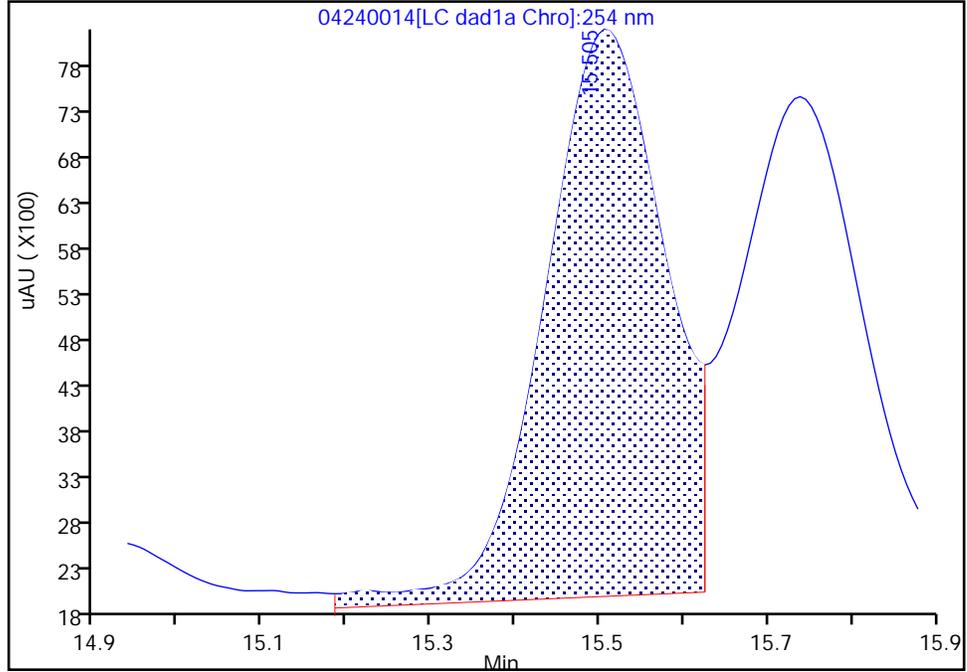
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

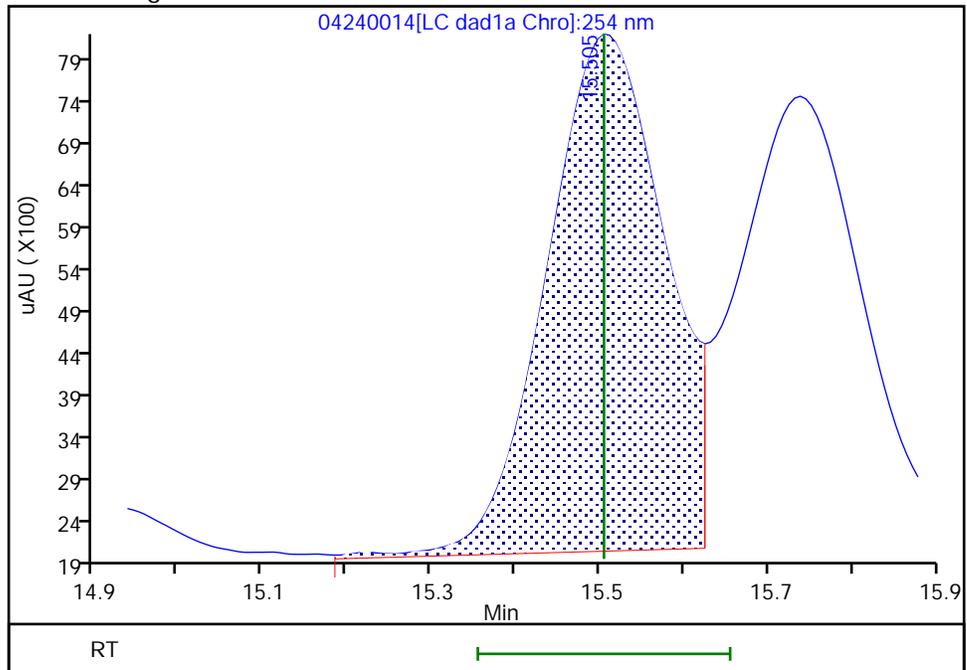
RT: 15.50
Area: 61475
Amount: 0.222767
Amount Units: ug/ml

Processing Integration Results



RT: 15.50
Area: 58941
Amount: 0.240974
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

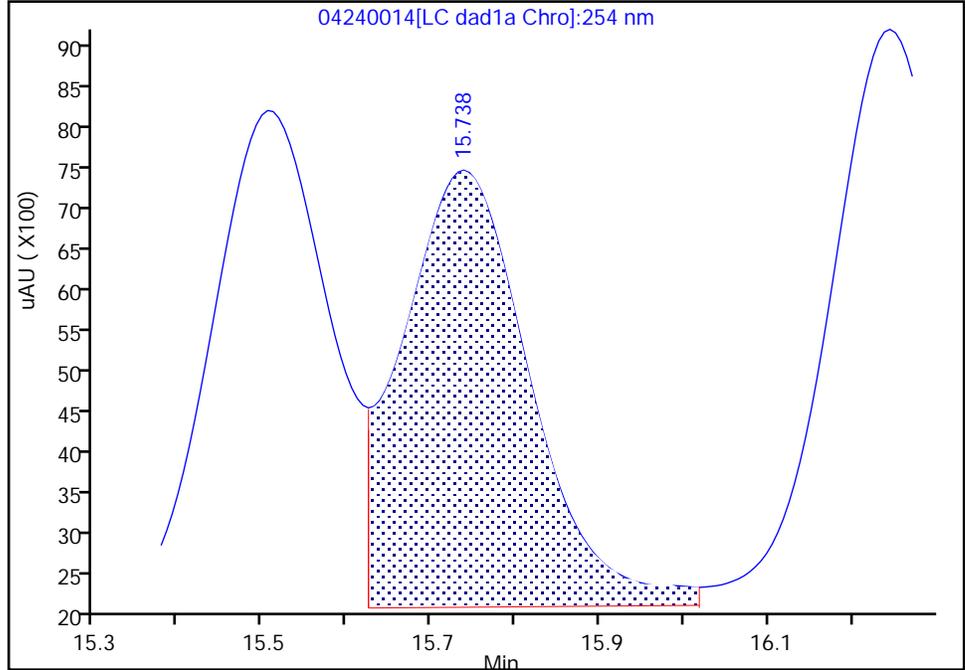
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

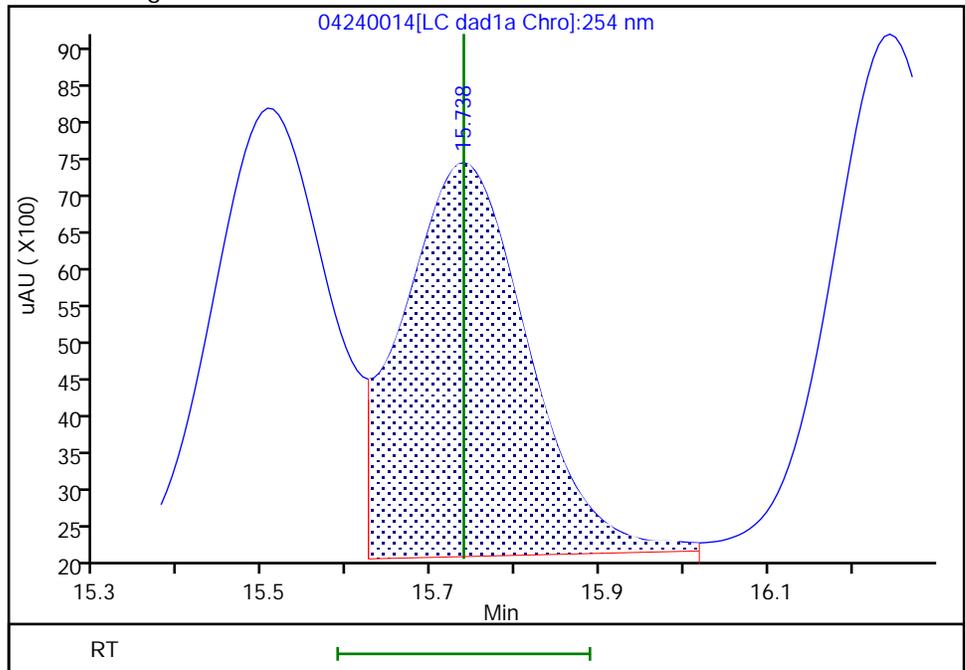
RT: 15.74
Area: 56218
Amount: 0.248629
Amount Units: ug/ml

Processing Integration Results



RT: 15.74
Area: 54130
Amount: 0.244405
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

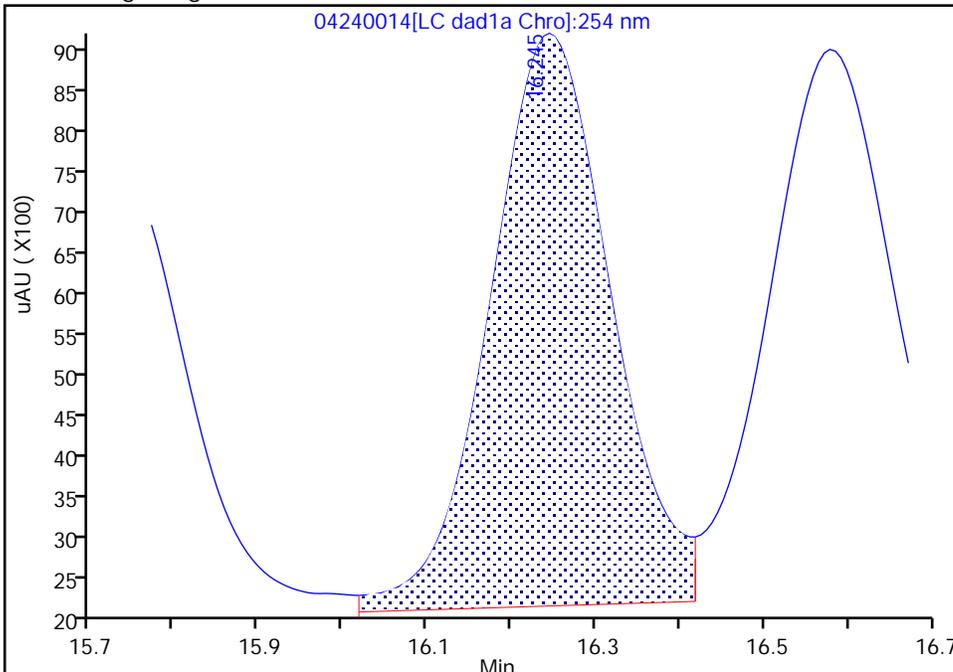
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
 Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 5
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

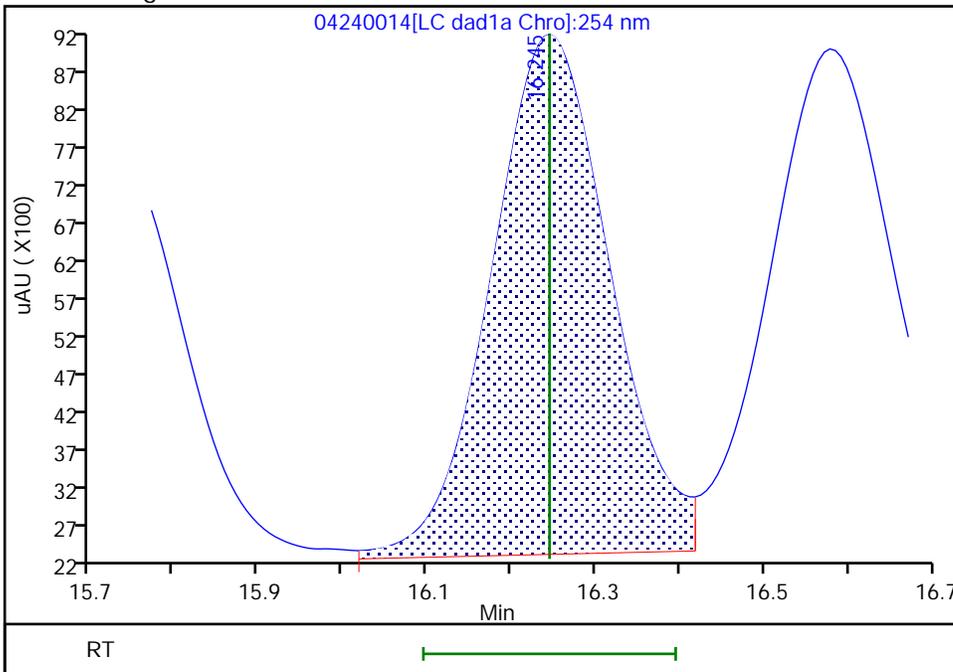
Processing Integration Results

RT: 16.24
 Area: 69455
 Amount: 0.247954
 Amount Units: ug/ml



Manual Integration Results

RT: 16.24
 Area: 67115
 Amount: 0.246270
 Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

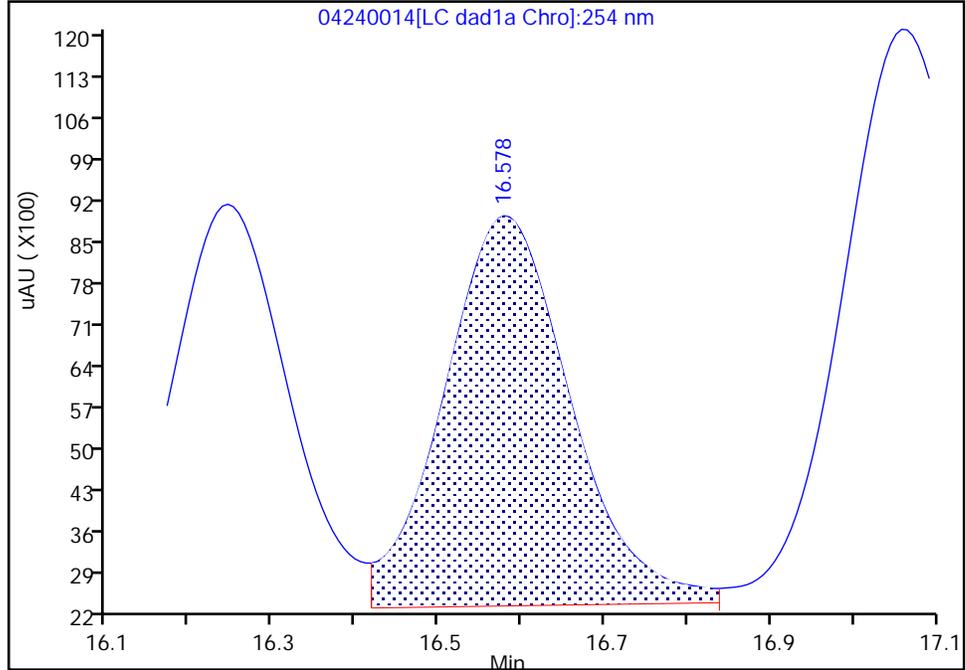
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

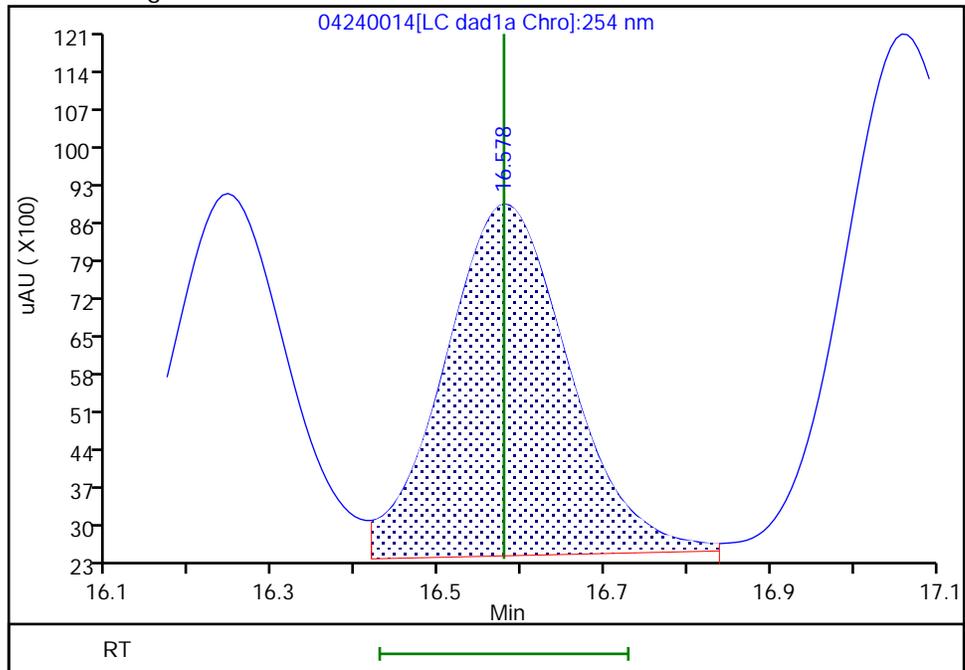
RT: 16.58
Area: 70537
Amount: 0.242628
Amount Units: ug/ml

Processing Integration Results



RT: 16.58
Area: 68559
Amount: 0.245258
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

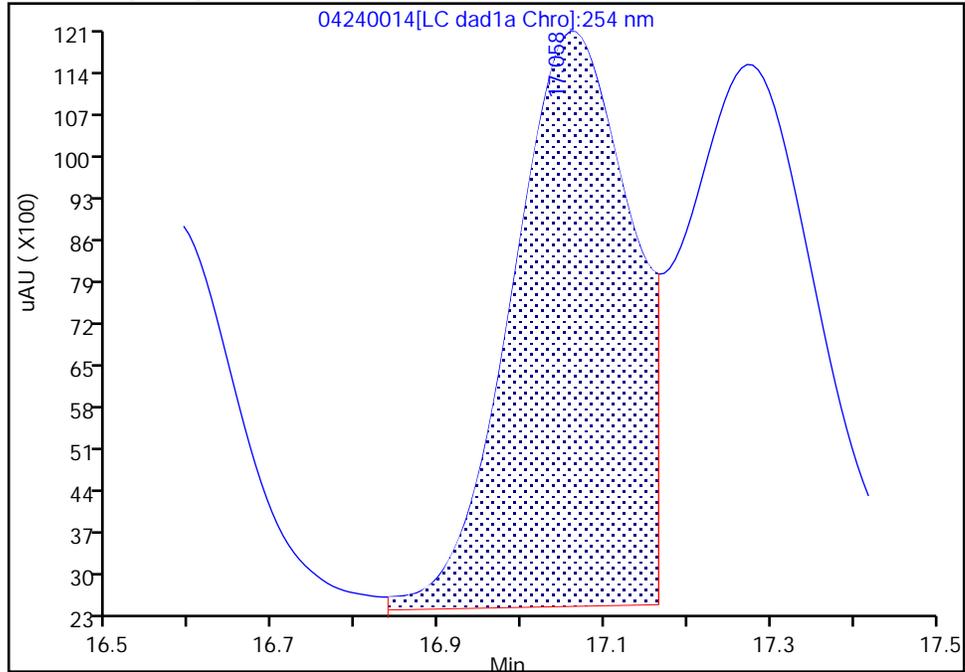
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

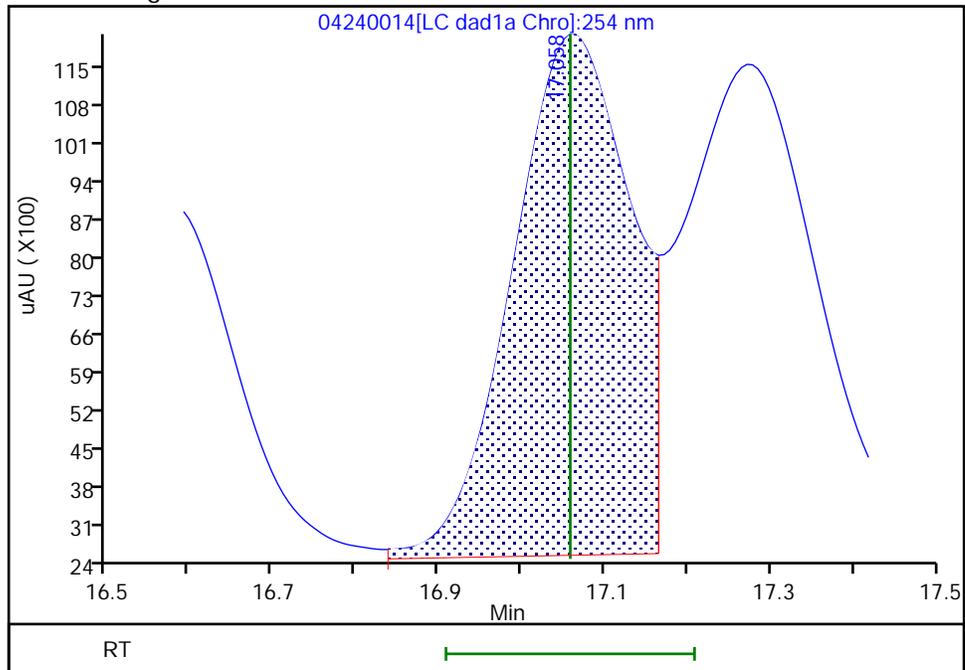
Processing Integration Results

RT: 17.06
Area: 96415
Amount: 0.246197
Amount Units: ug/ml



Manual Integration Results

RT: 17.06
Area: 95082
Amount: 0.234445
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

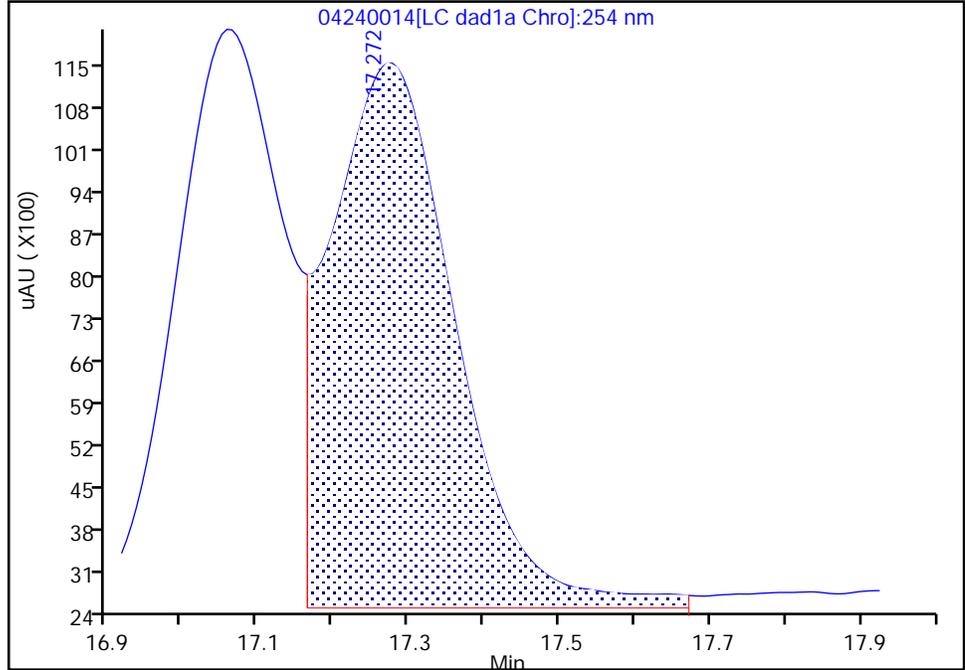
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

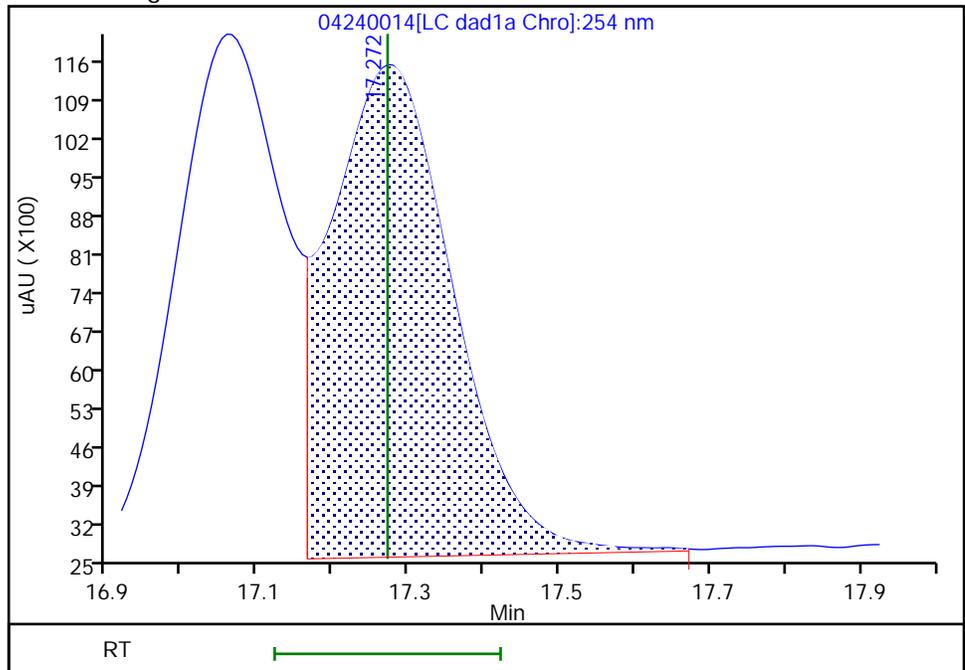
RT: 17.27
Area: 104518
Amount: 0.223412
Amount Units: ug/ml

Processing Integration Results



RT: 17.27
Area: 101067
Amount: 0.238673
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

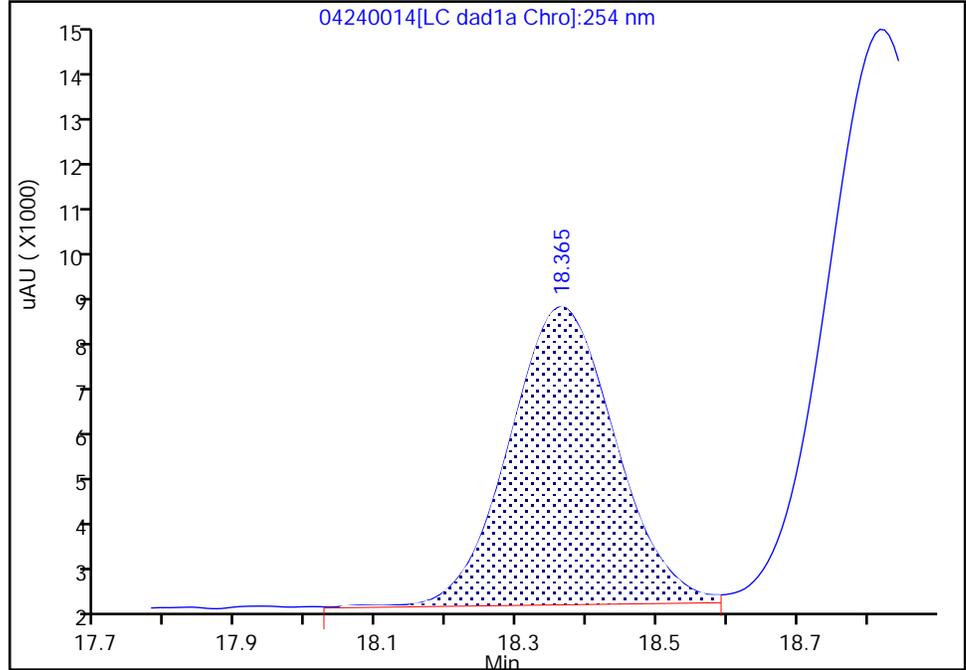
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

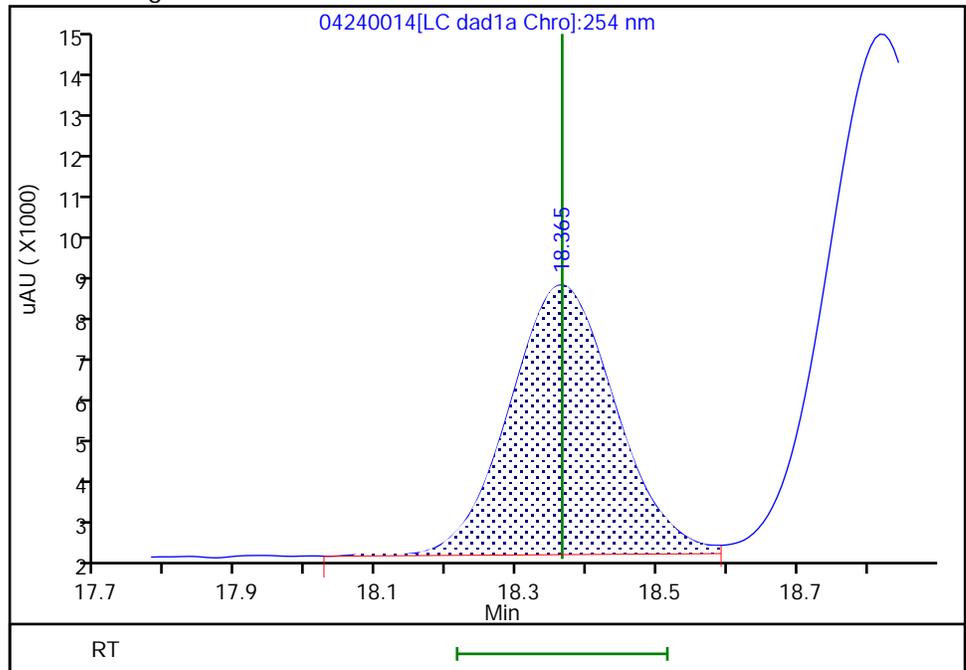
RT: 18.36
Area: 66386
Amount: 0.242219
Amount Units: ug/ml

Processing Integration Results



RT: 18.36
Area: 66539
Amount: 0.239375
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

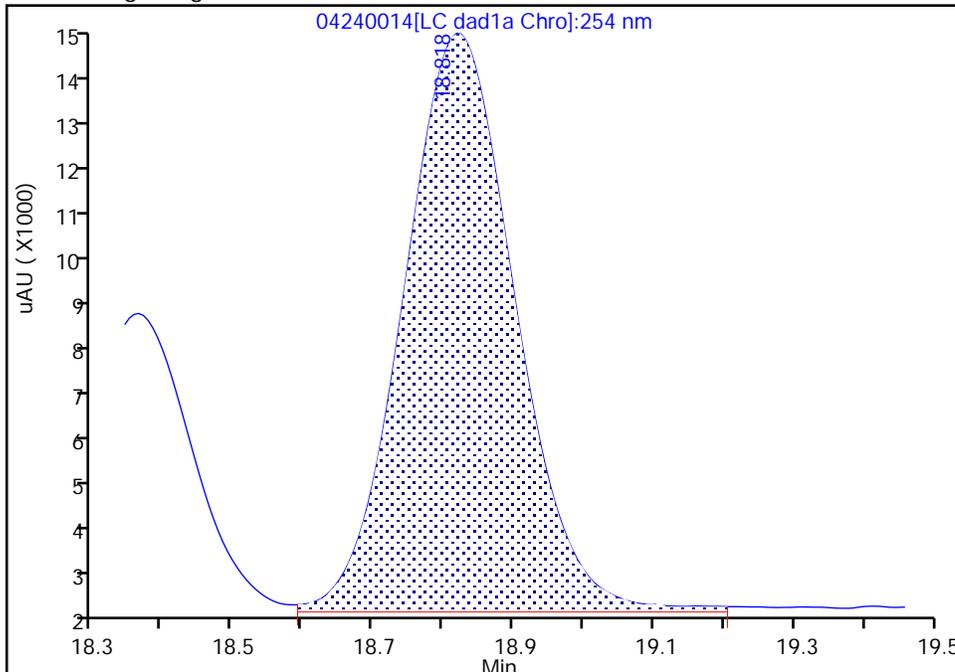
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

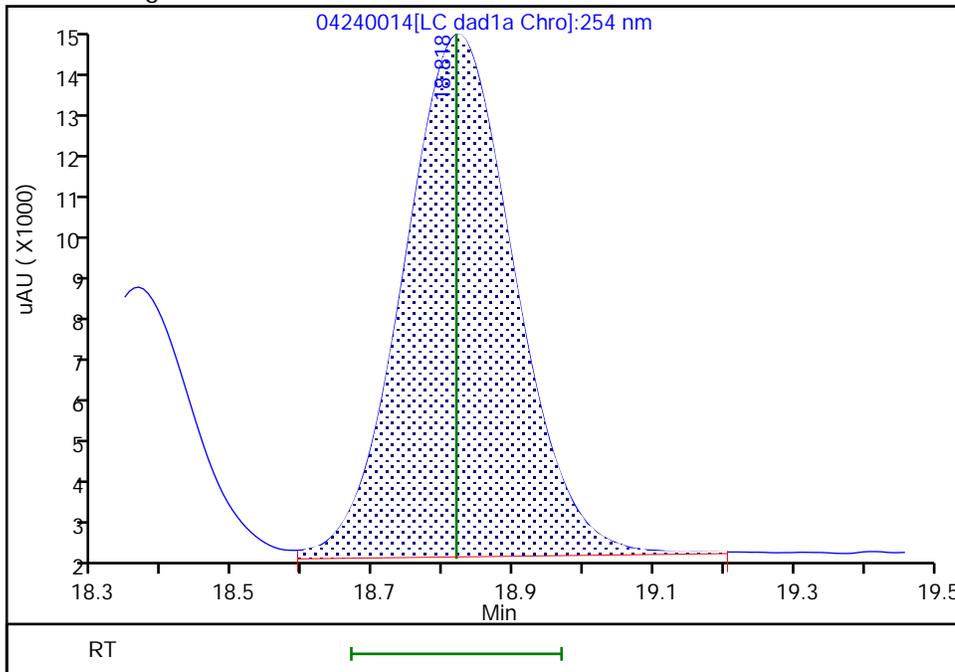
RT: 18.82
Area: 134462
Amount: 0.225853
Amount Units: ug/ml

Processing Integration Results



RT: 18.82
Area: 133579
Amount: 0.240872
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

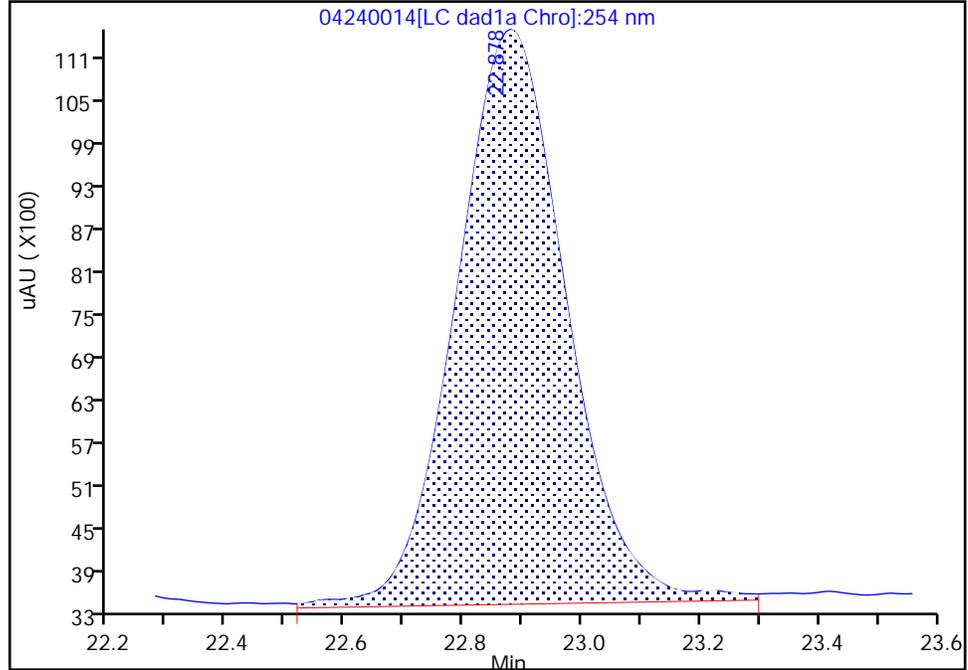
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

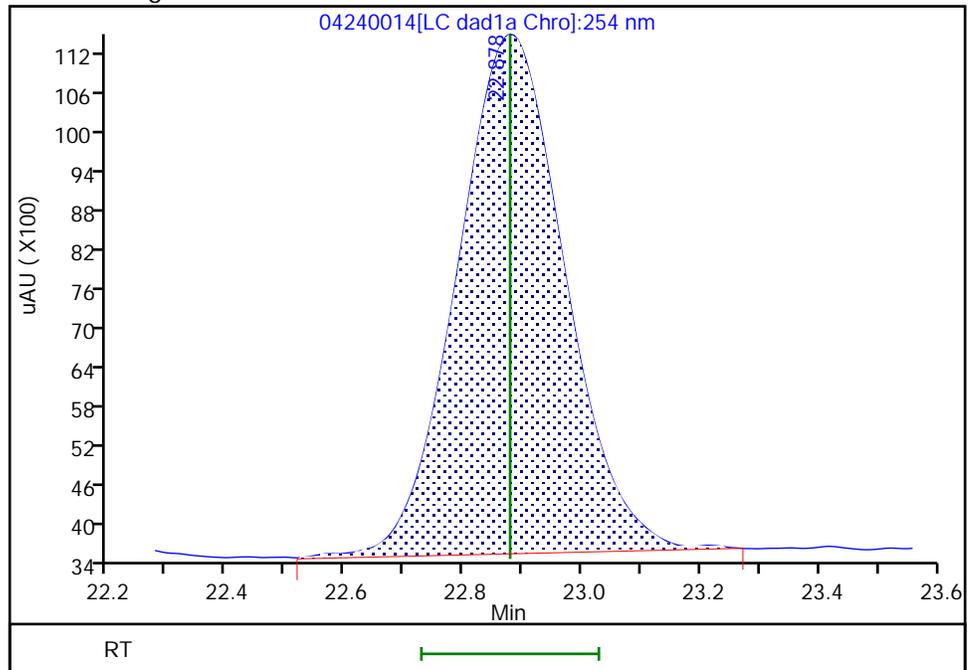
RT: 22.88
Area: 104402
Amount: 0.260324
Amount Units: ug/ml

Processing Integration Results



RT: 22.88
Area: 100337
Amount: 0.250991
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:37:49 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

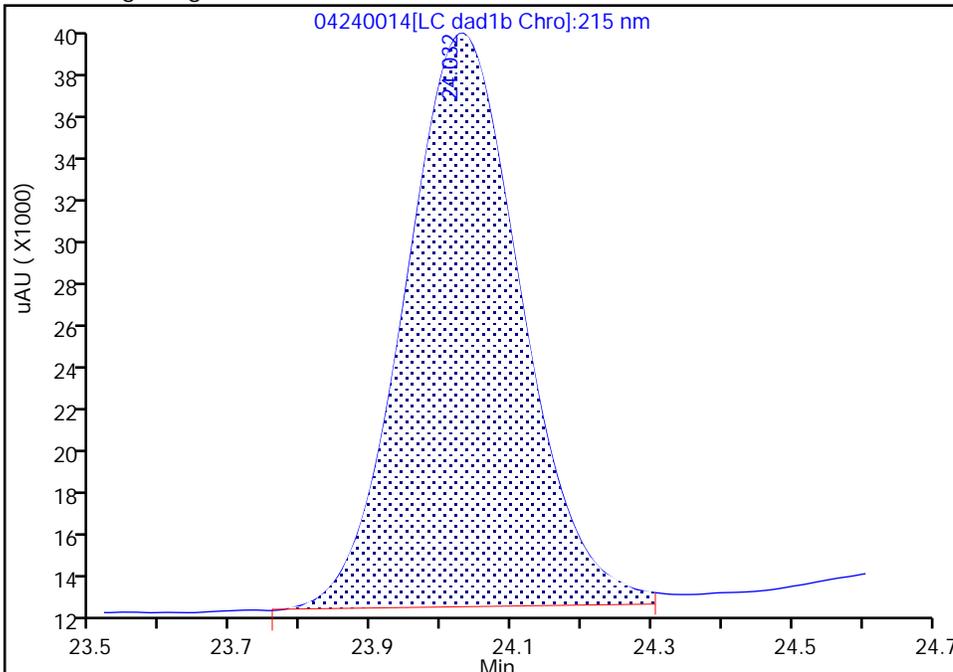
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

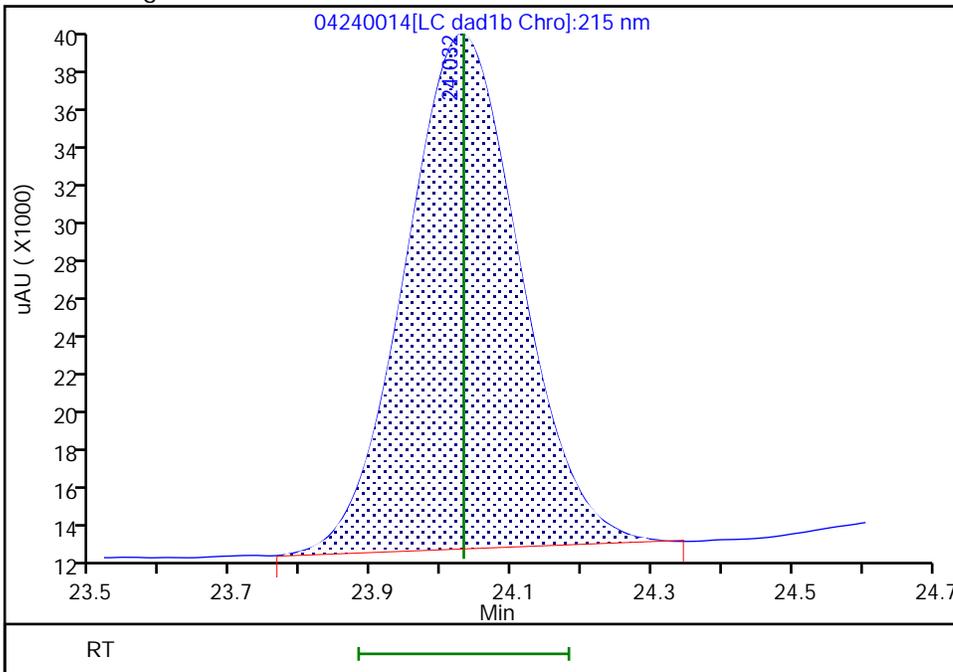
RT: 24.03
Area: 310832
Amount: 2.589148
Amount Units: ug/ml

Processing Integration Results



RT: 24.03
Area: 304928
Amount: 2.482849
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:39:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240015.D
 Lims ID: IC INT 4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 25-Apr-2024 00:27:59 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:14 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.706	6.705	0.001	17977	0.1000	0.1033	
5 2,4,6-Trinitrophenol	1	8.659	8.612	0.047	14859	0.1000	0.0981	
8 RDX	1	8.946	8.938	0.008	21609	0.1000	0.1025	
9 Nitrobenzene	1	11.452	11.425	0.027	39489	0.1000	0.1033	
\$ 10 1,2-Dinitrobenzene	1	12.372	12.345	0.027	27370	0.1000	0.1058	
11 3,5-Dinitroaniline	1	14.205	14.185	0.020	43670	0.1000	0.0993	M
12 1,3-Dinitrobenzene	1	14.492	14.478	0.014	57592	0.1000	0.0977	M
13 Nitroglycerin	2	14.945	14.918	0.027	126558	1.00	1.06	M
14 o-Nitrotoluene	1	15.532	15.505	0.027	23799	0.1000	0.0973	M
15 p-Nitrotoluene	1	15.759	15.738	0.021	22549	0.1000	0.0994	M
16 4-Amino-2,6-dinitrotoluene	1	16.265	16.245	0.020	27449	0.1000	0.0991	M
17 m-Nitrotoluene	1	16.599	16.578	0.021	28103	0.1000	0.0985	M
18 2-Amino-4,6-dinitrotoluene	1	17.079	17.058	0.021	39853	0.1000	0.0983	M
19 1,3,5-Trinitrobenzene	1	17.285	17.272	0.013	41177	0.1000	0.0972	M
20 2,6-Dinitrotoluene	1	18.379	18.365	0.014	27487	0.1000	0.0989	M
21 2,4-Dinitrotoluene	1	18.839	18.818	0.021	54294	0.1000	0.0979	M
22 Tetryl	1	22.052	22.025	0.027	32920	0.1000	0.1041	
23 2,4,6-Trinitrotoluene	1	22.912	22.878	0.034	41861	0.1000	0.1047	M
24 PETN	2	24.046	24.032	0.014	121831	1.00	1.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 10.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d

Injection Date: 25-Apr-2024 00:27:59

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 4

Worklist Smp#: 15

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

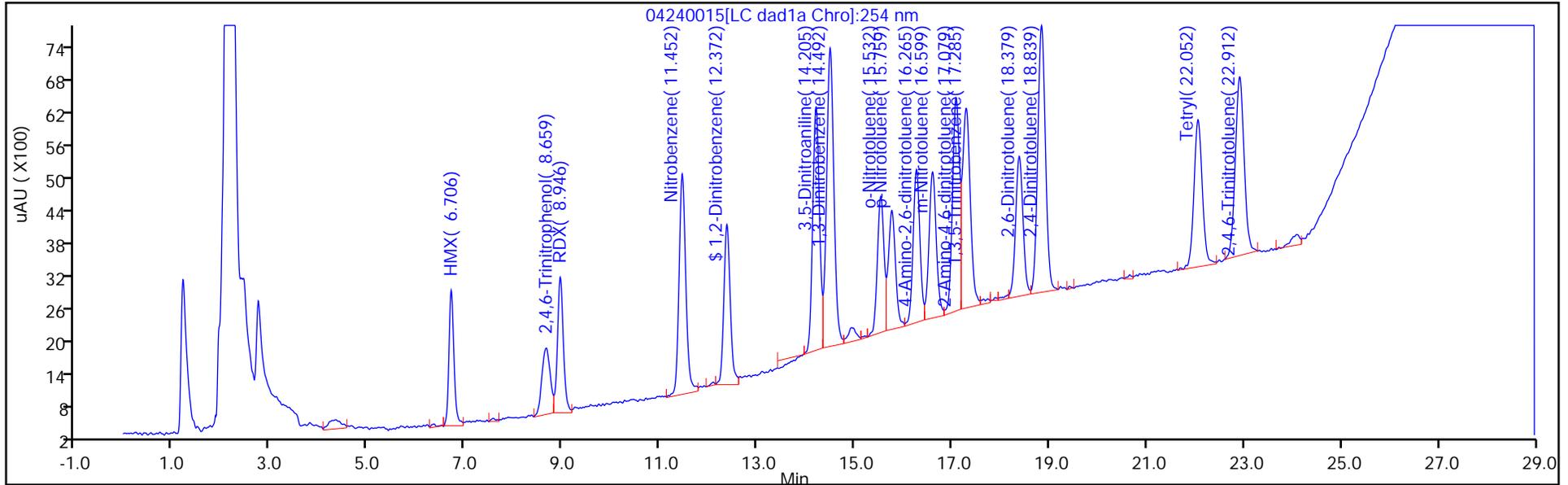
ALS Bottle#: 15

Method: G2_8330_Luna

Limit Group: GCSV - 8330

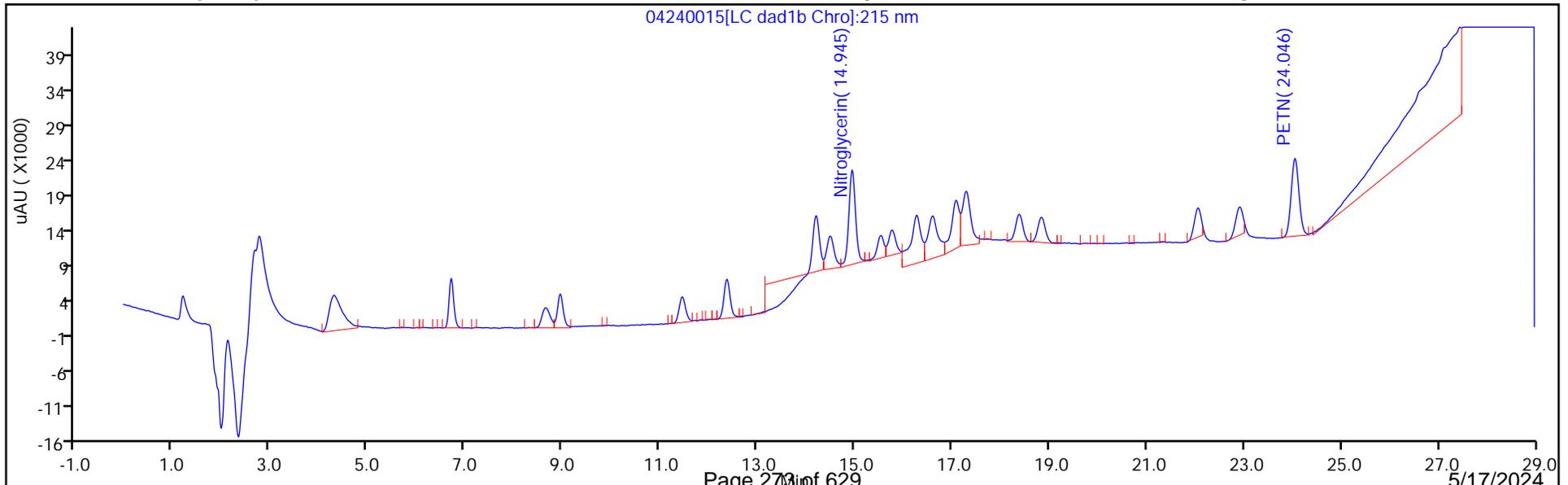
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

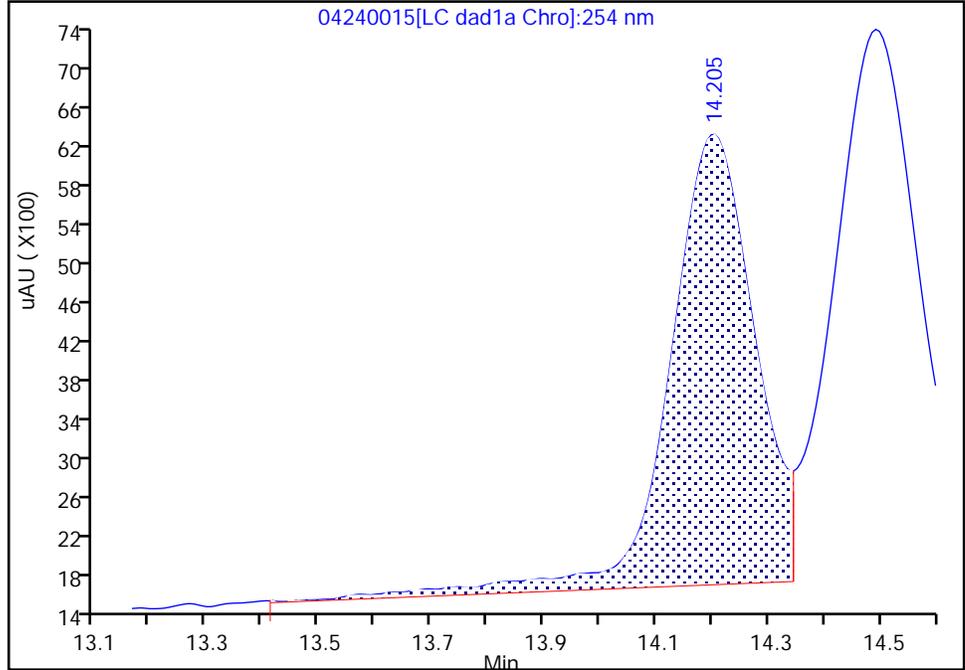
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

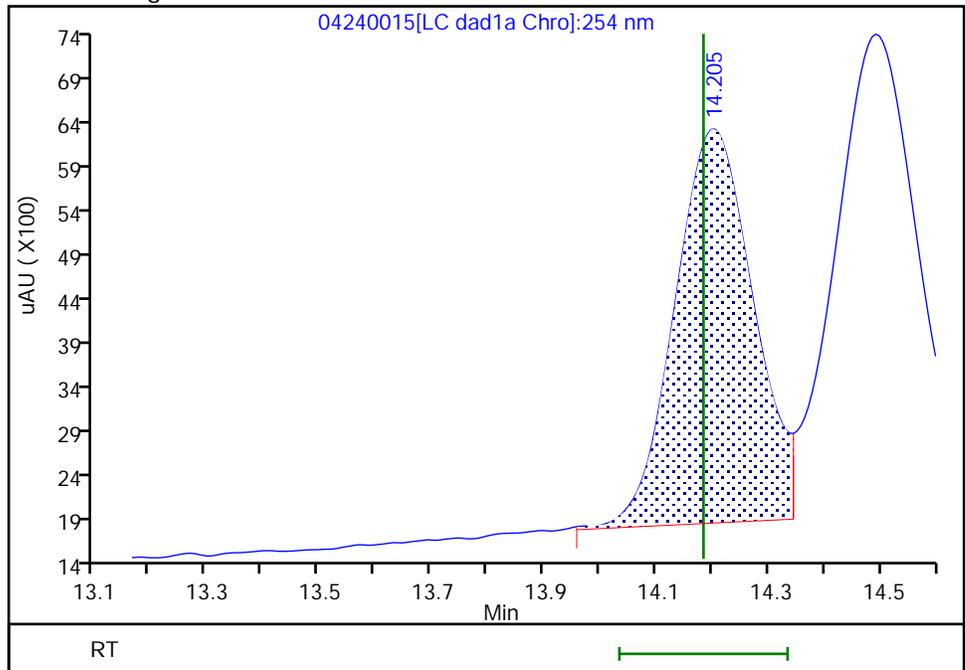
RT: 14.21
Area: 48990
Amount: 0.107916
Amount Units: ug/ml

Processing Integration Results



RT: 14.21
Area: 43670
Amount: 0.099254
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

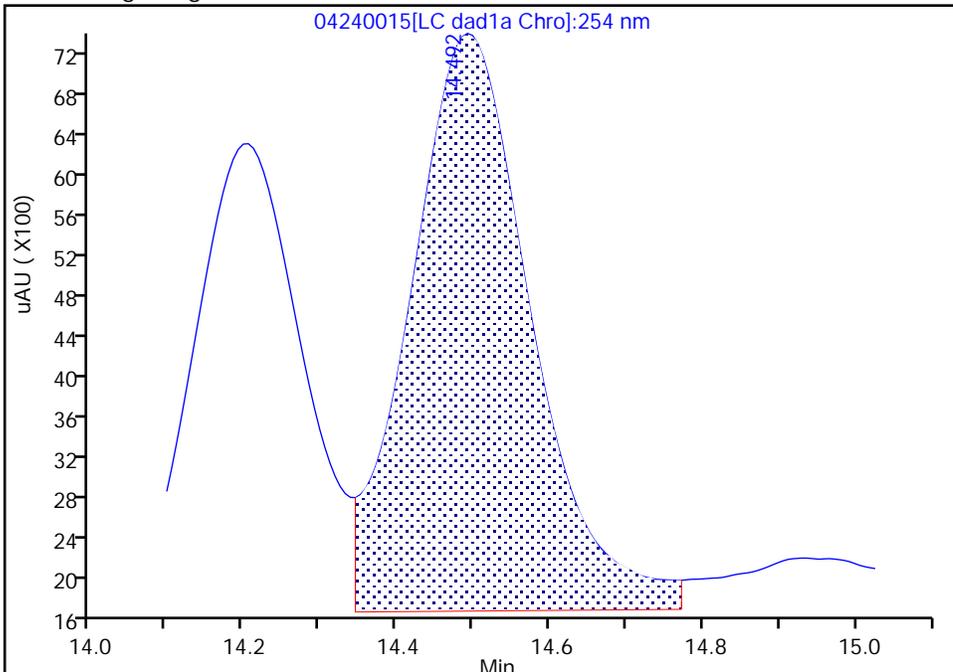
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

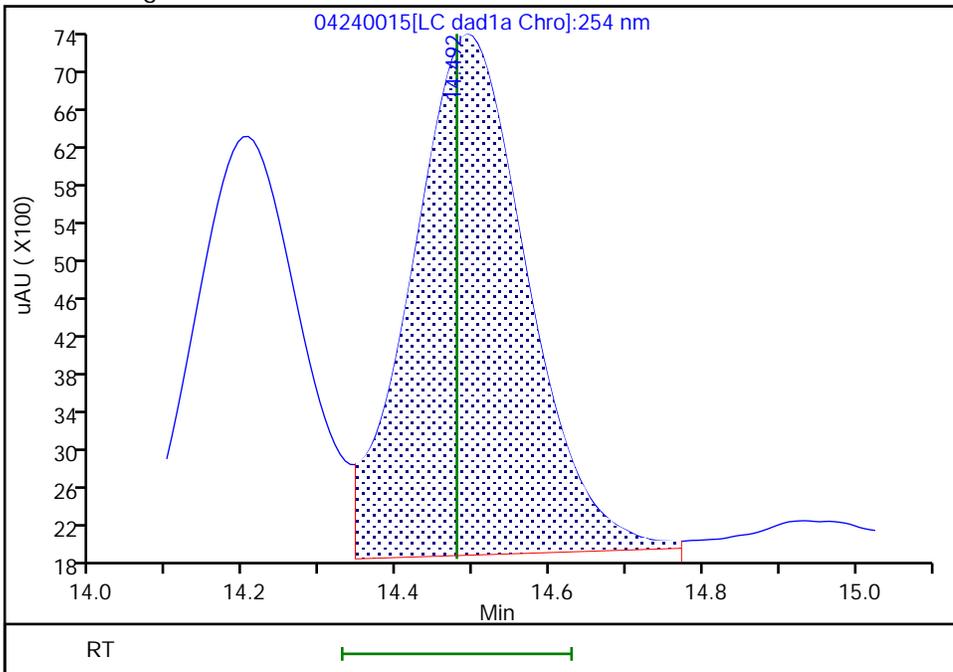
RT: 14.49
Area: 62136
Amount: 0.098323
Amount Units: ug/ml

Processing Integration Results



RT: 14.49
Area: 57592
Amount: 0.097710
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

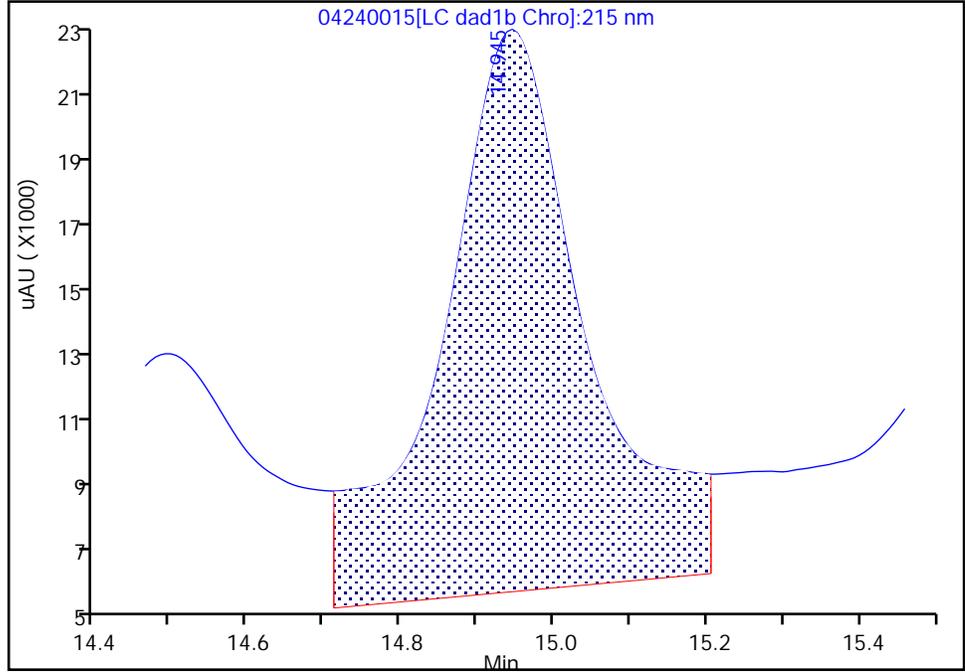
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

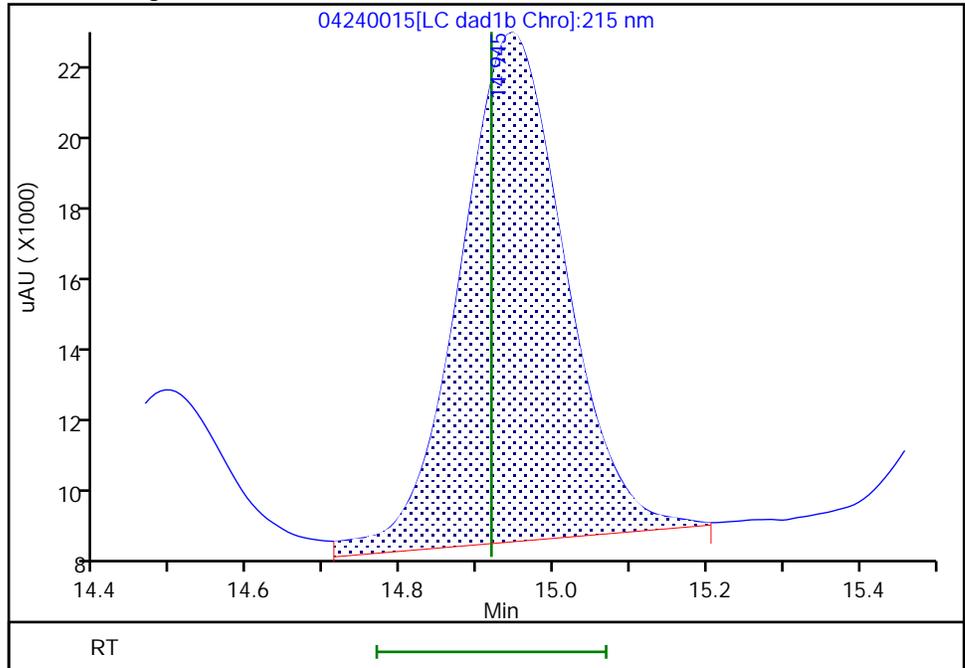
RT: 14.95
Area: 211924
Amount: 0.838110
Amount Units: ug/ml

Processing Integration Results



RT: 14.95
Area: 126558
Amount: 1.059021
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:05 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

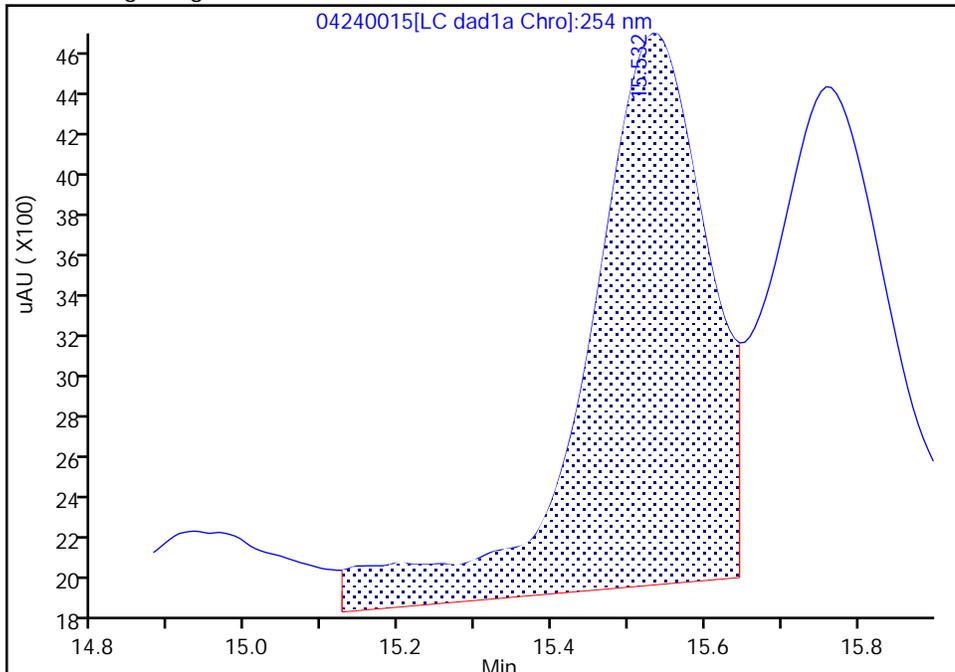
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

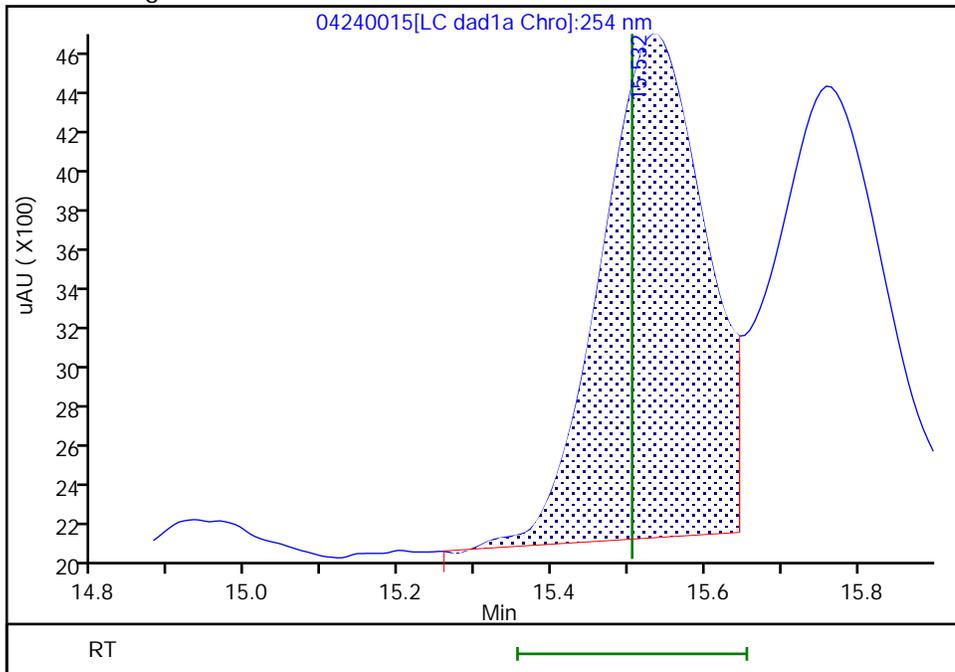
RT: 15.53
Area: 29559
Amount: 0.107552
Amount Units: ug/ml

Processing Integration Results



RT: 15.53
Area: 23799
Amount: 0.097300
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

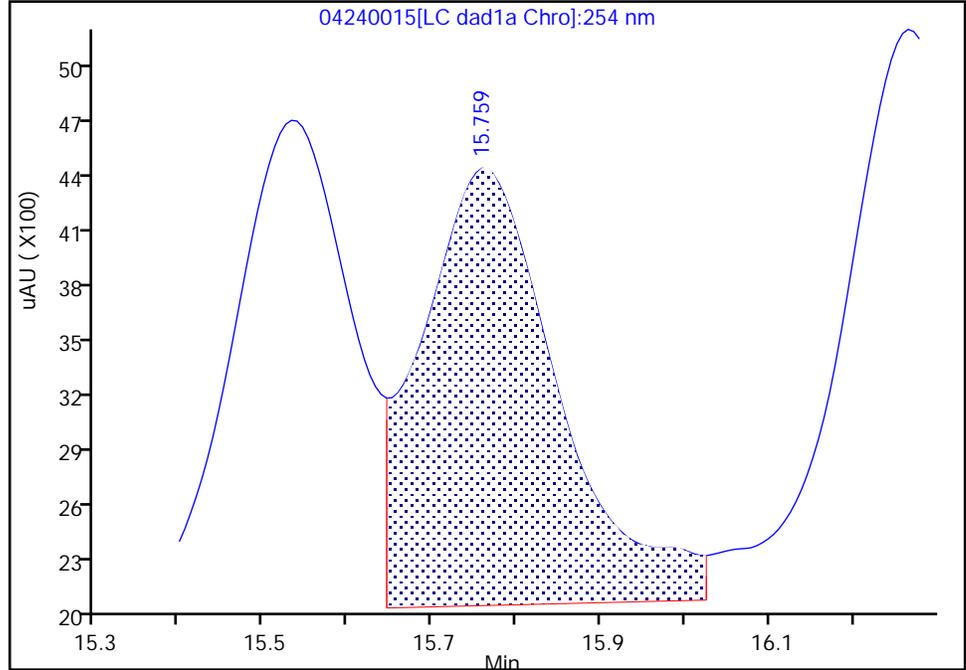
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

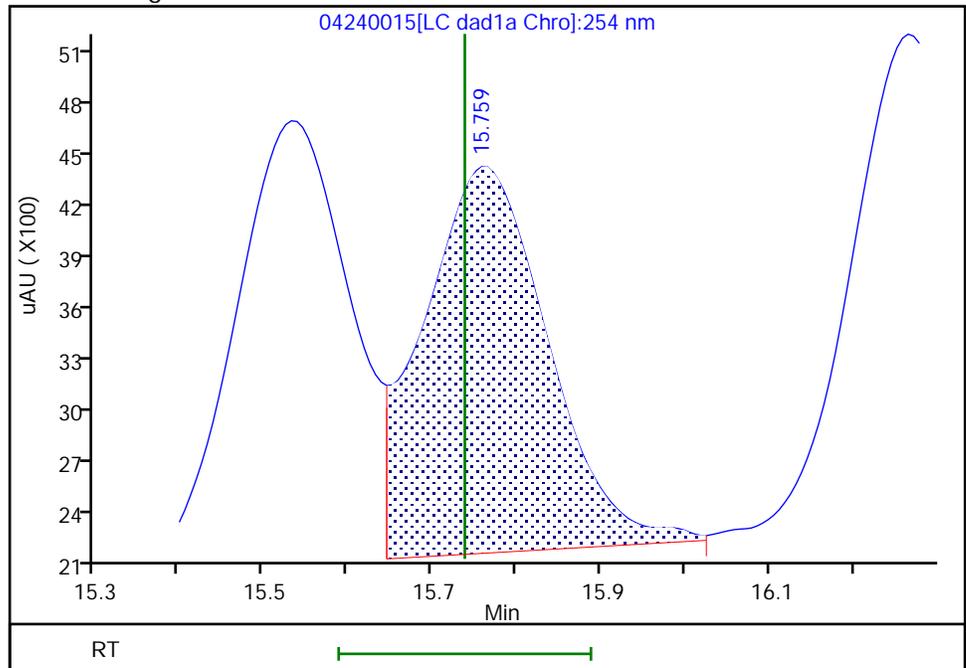
RT: 15.76
Area: 26801
Amount: 0.114371
Amount Units: ug/ml

Processing Integration Results



RT: 15.76
Area: 22549
Amount: 0.099353
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

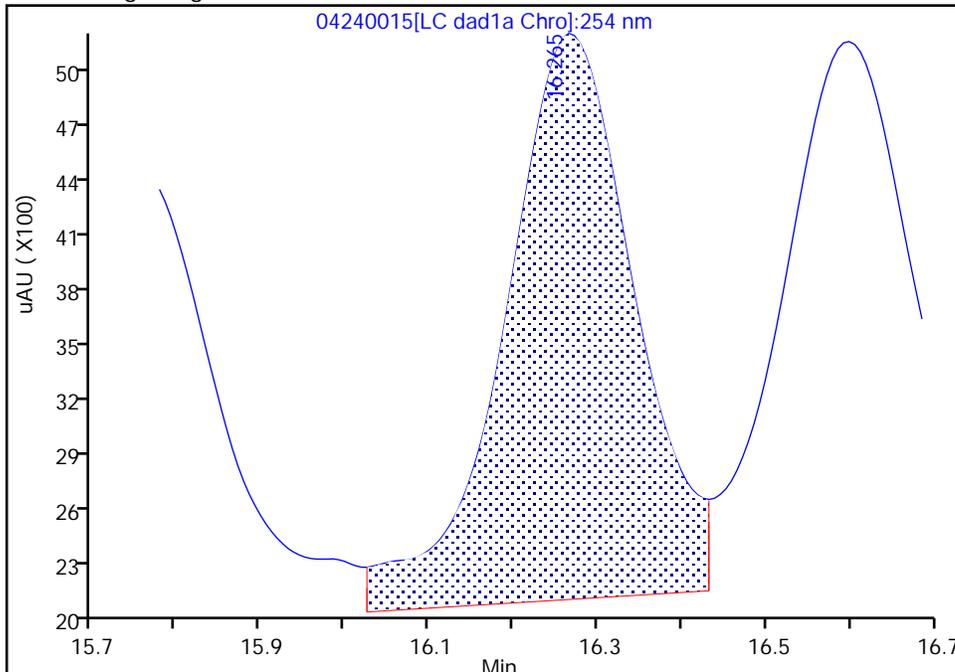
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

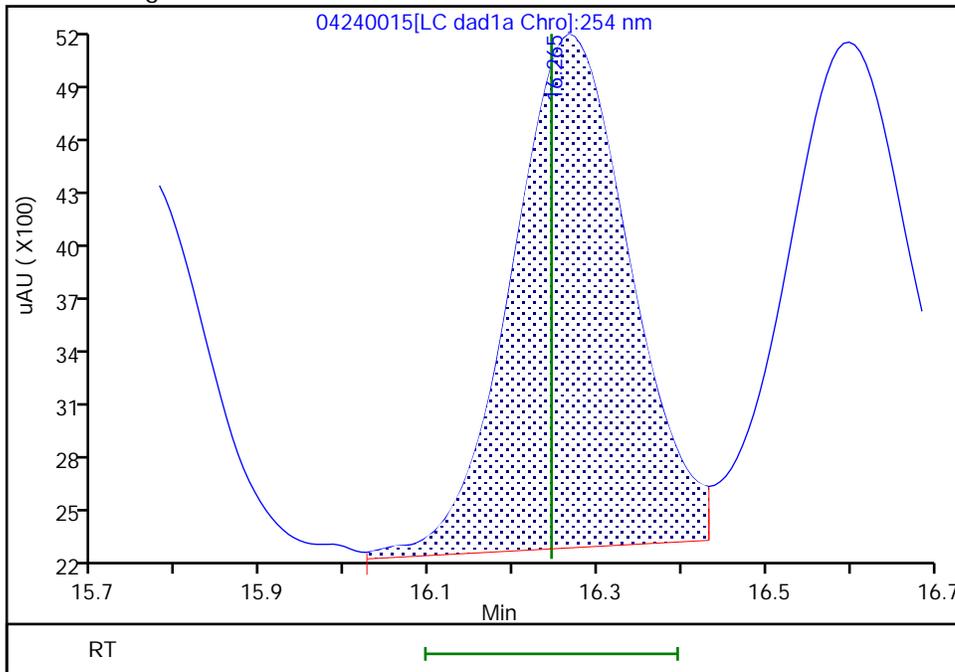
RT: 16.27
Area: 32402
Amount: 0.109550
Amount Units: ug/ml

Processing Integration Results



RT: 16.27
Area: 27449
Amount: 0.099093
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

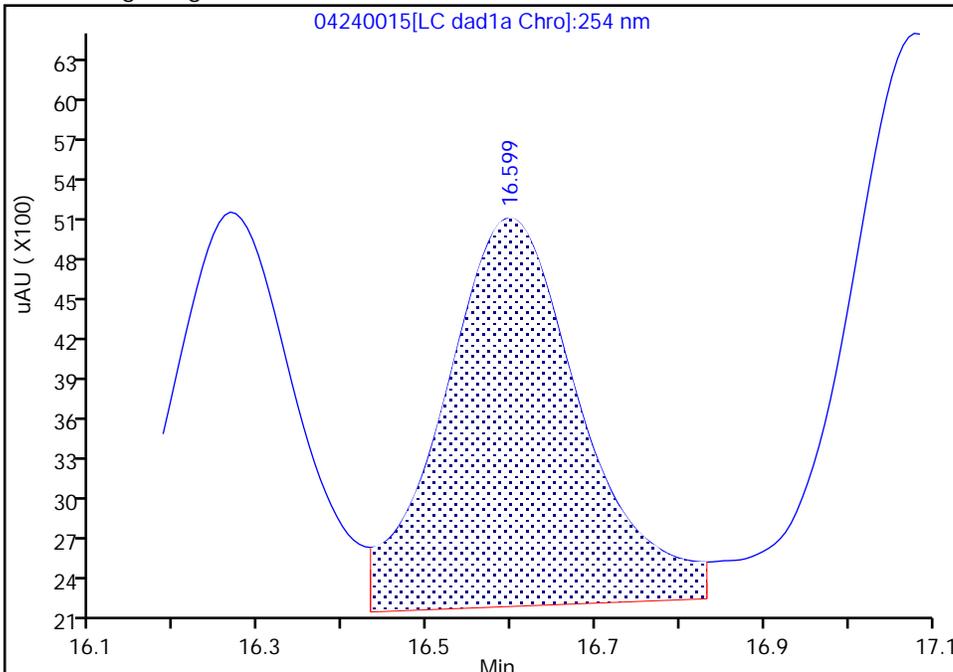
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

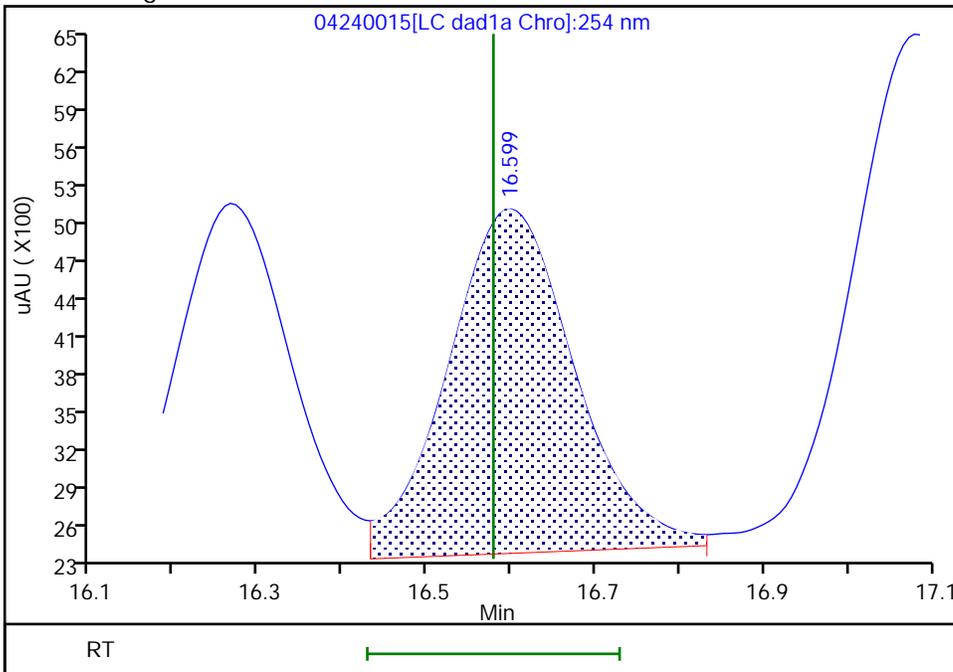
RT: 16.60
Area: 32735
Amount: 0.108622
Amount Units: ug/ml

Processing Integration Results



RT: 16.60
Area: 28103
Amount: 0.098459
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

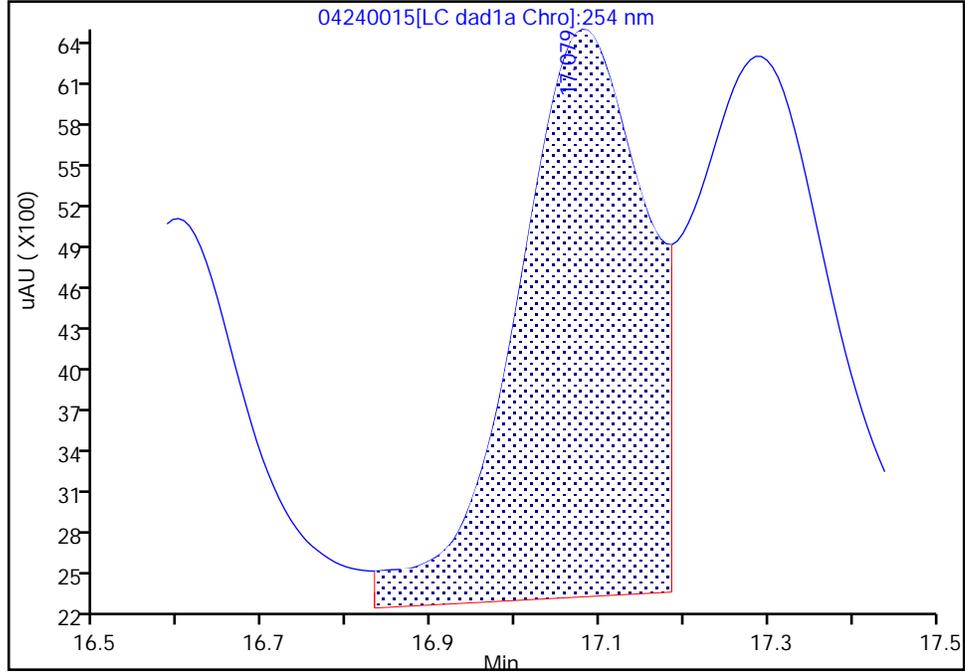
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

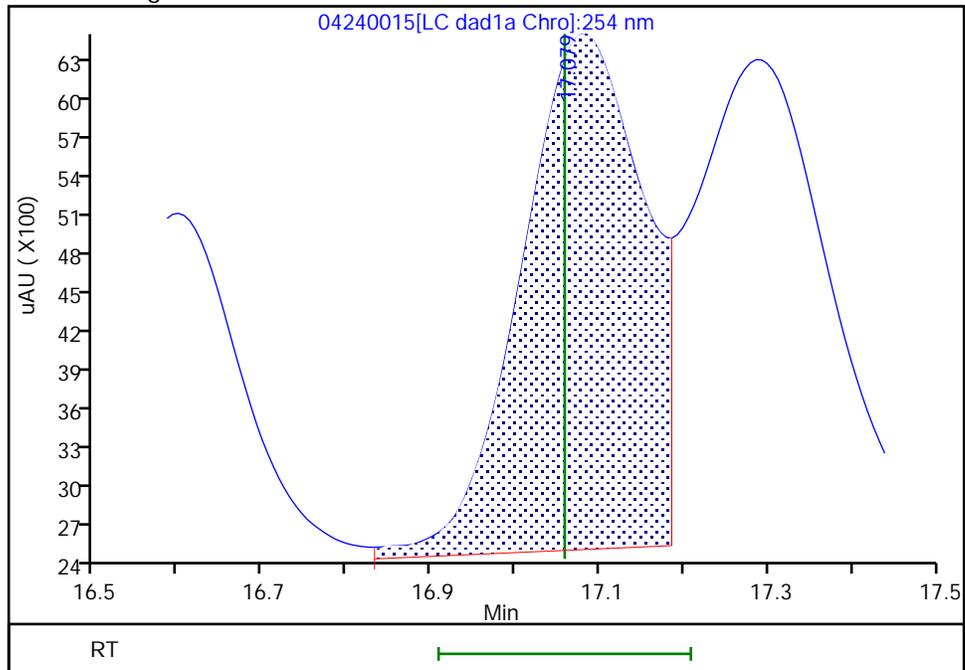
RT: 17.08
Area: 43679
Amount: 0.107499
Amount Units: ug/ml

Processing Integration Results



RT: 17.08
Area: 39853
Amount: 0.098266
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

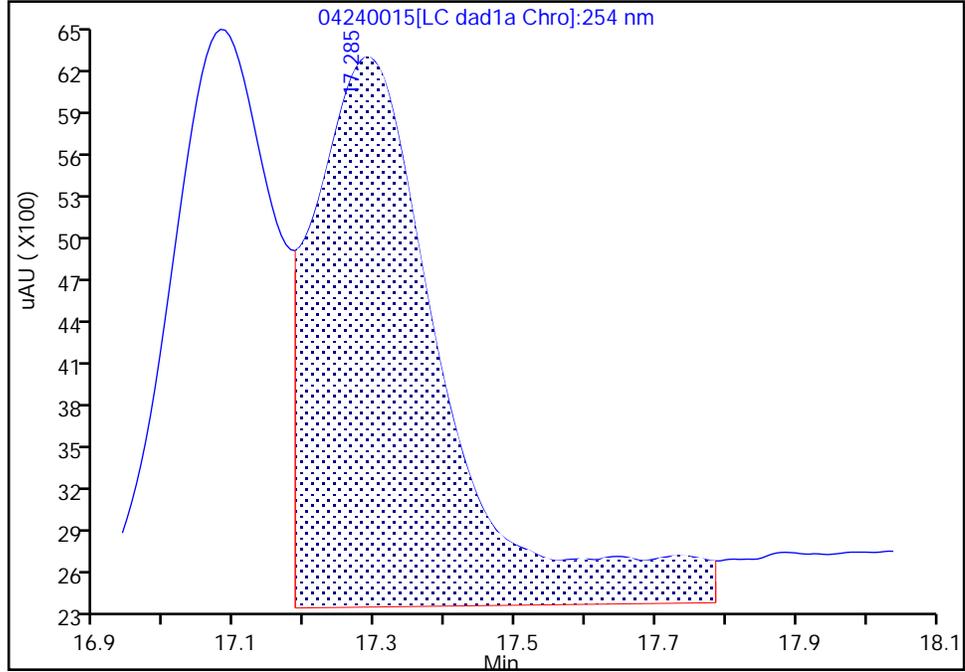
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

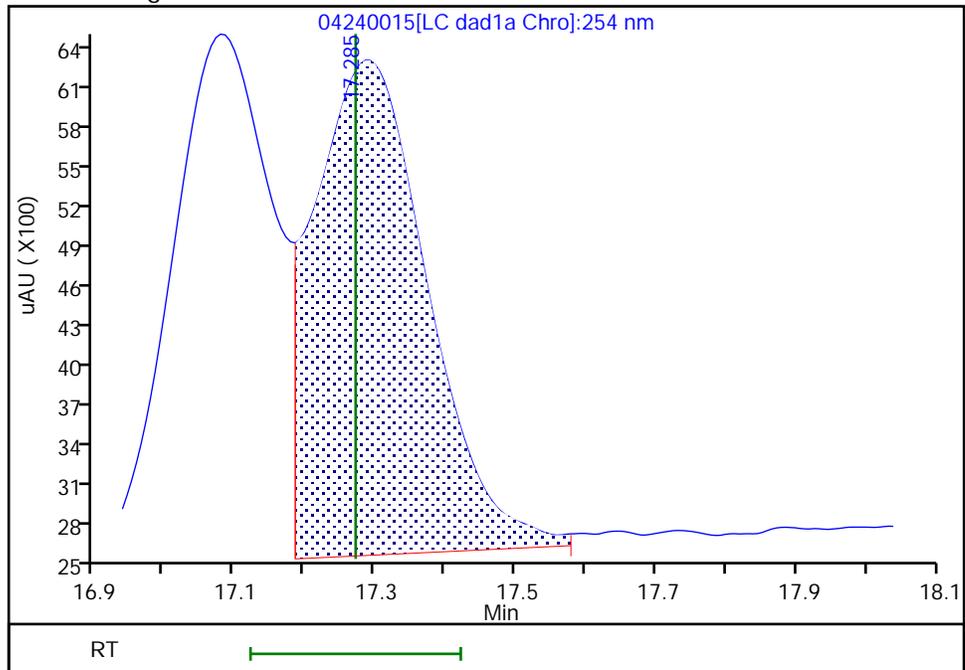
RT: 17.29
Area: 49937
Amount: 0.107094
Amount Units: ug/ml

Processing Integration Results



RT: 17.29
Area: 41177
Amount: 0.097241
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

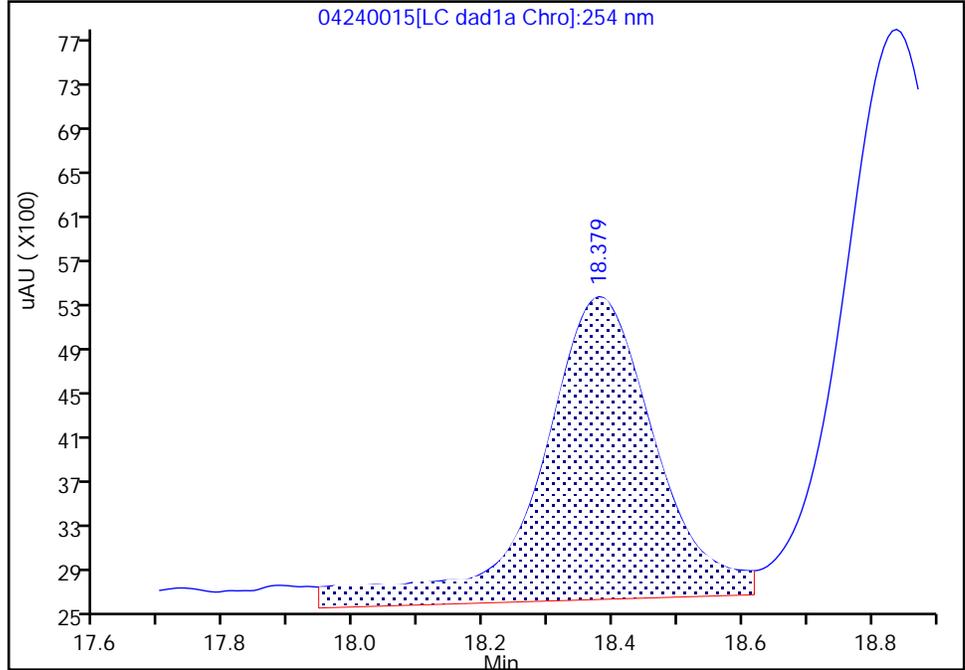
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

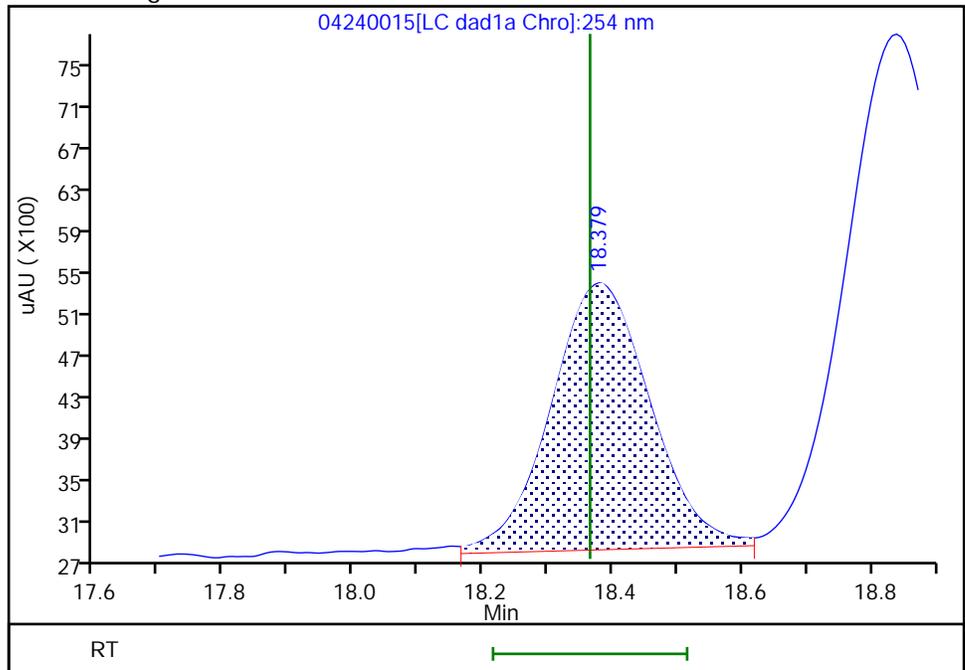
RT: 18.38
Area: 34293
Amount: 0.121780
Amount Units: ug/ml

Processing Integration Results



RT: 18.38
Area: 27487
Amount: 0.098885
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

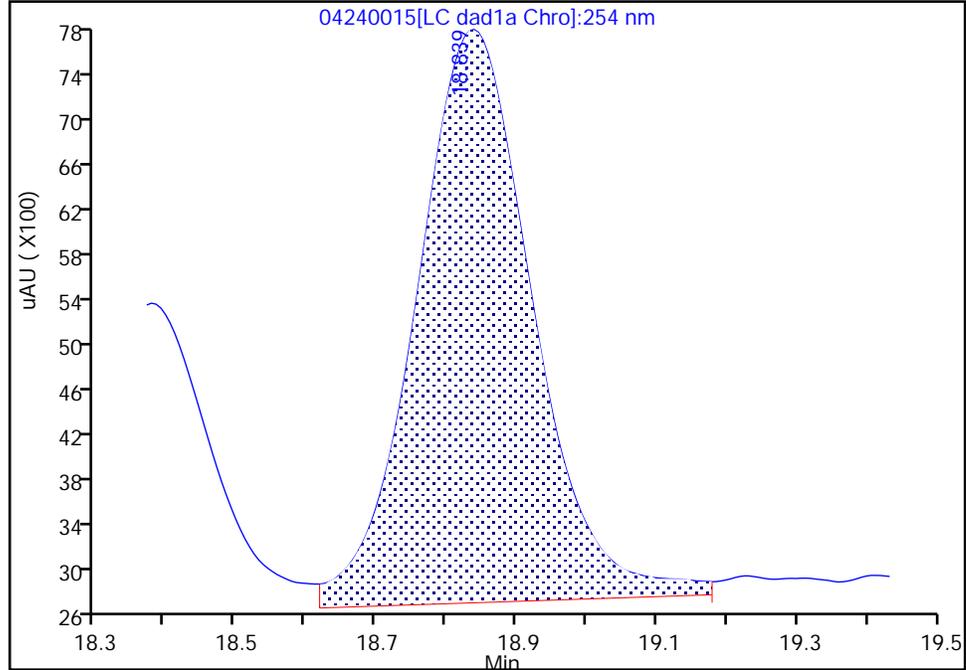
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

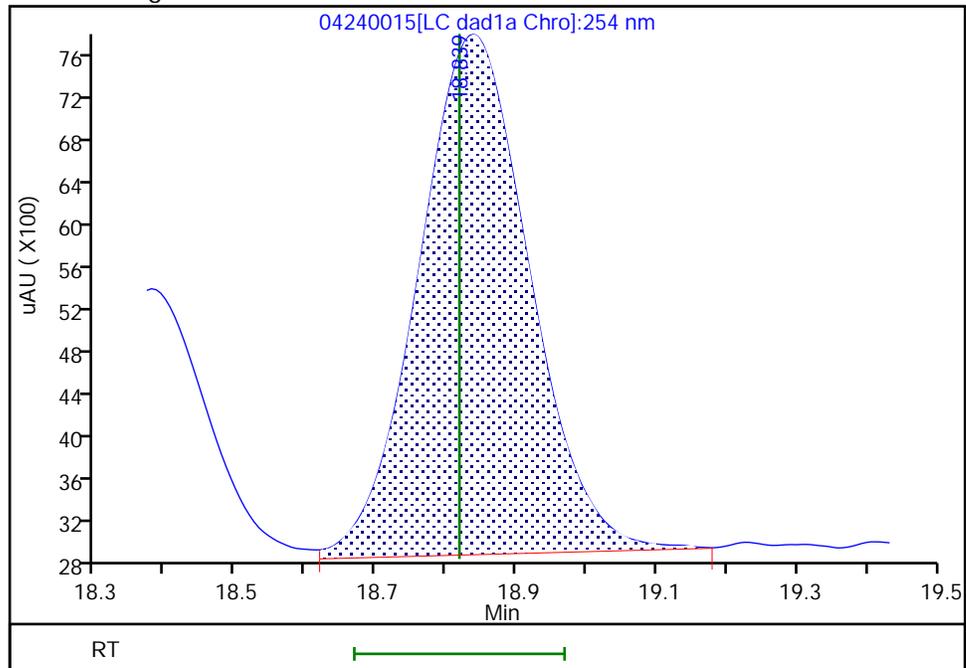
RT: 18.84
Area: 58511
Amount: 0.098344
Amount Units: ug/ml

Processing Integration Results



RT: 18.84
Area: 54294
Amount: 0.097904
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:54 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

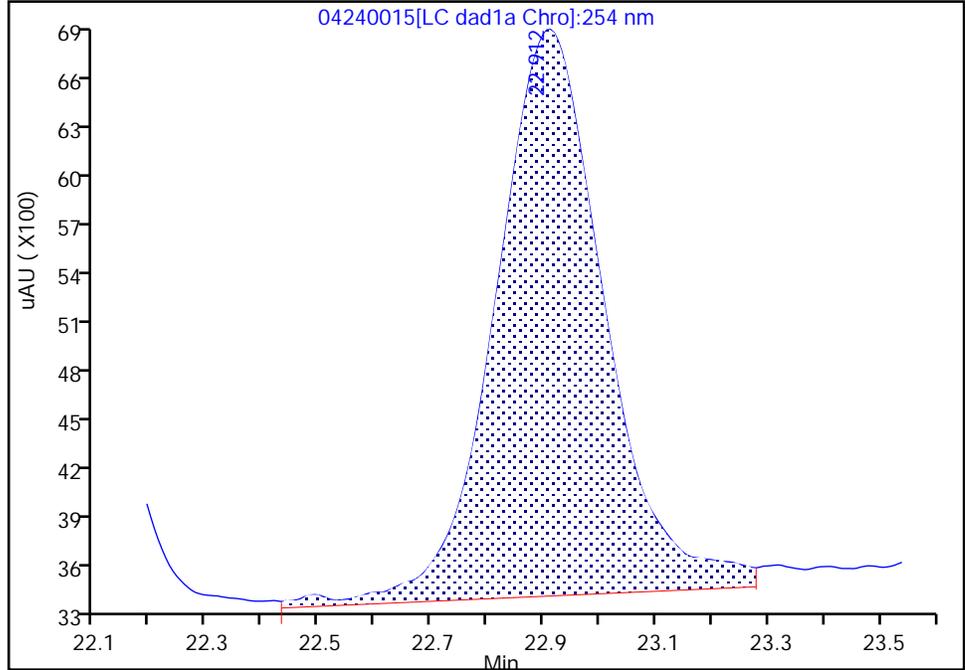
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

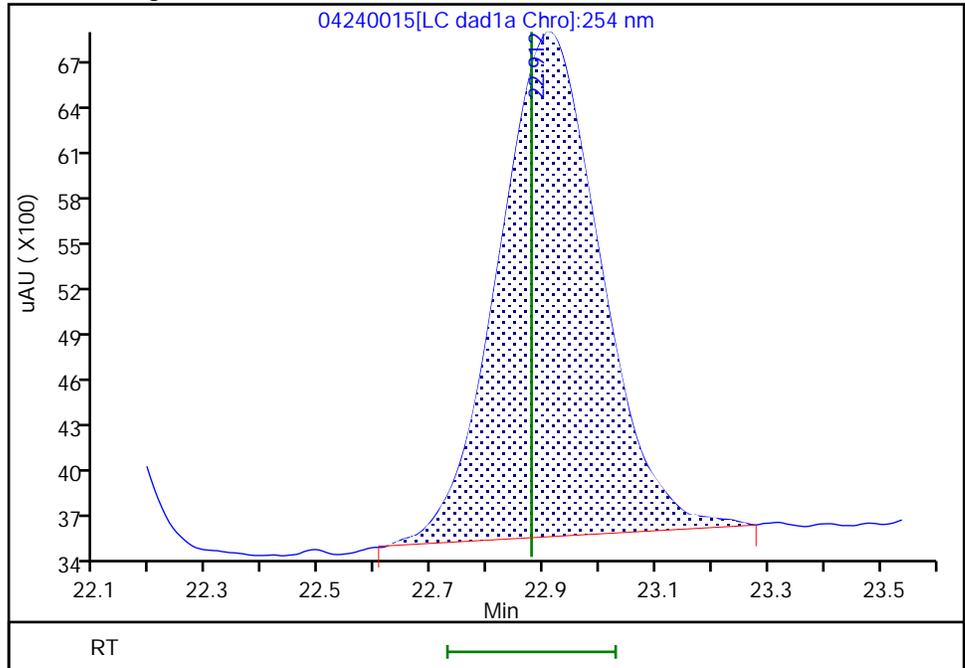
RT: 22.91
Area: 46193
Amount: 0.112953
Amount Units: ug/ml

Processing Integration Results



RT: 22.91
Area: 41861
Amount: 0.104715
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:36:56 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240016.D
 Lims ID: IC INT 3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 25-Apr-2024 01:03:56 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:16 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D

Date: 25-Apr-2024 13:20:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.709	6.705	0.004	8509	0.0500	0.0489	M
5 2,4,6-Trinitrophenol	1	8.663	8.612	0.051	7014	0.0500	0.0463	
8 RDX	1	8.943	8.938	0.005	10654	0.0500	0.0492	
9 Nitrobenzene	1	11.436	11.425	0.011	18193	0.0500	0.0476	
\$ 10 1,2-Dinitrobenzene	1	12.356	12.345	0.011	13324	0.0500	0.0515	
11 3,5-Dinitroaniline	1	14.203	14.185	0.018	22481	0.0500	0.0501	M
12 1,3-Dinitrobenzene	1	14.496	14.478	0.018	30596	0.0500	0.0519	M
13 Nitroglycerin	2	14.943	14.918	0.025	59130	0.5000	0.4948	M
14 o-Nitrotoluene	1	15.523	15.505	0.018	13247	0.0500	0.0542	M
15 p-Nitrotoluene	1	15.743	15.738	0.005	11825	0.0500	0.0501	M
16 4-Amino-2,6-dinitrotoluene	1	16.249	16.245	0.004	13955	0.0500	0.0490	M
17 m-Nitrotoluene	1	16.583	16.578	0.005	14941	0.0500	0.0507	M
18 2-Amino-4,6-dinitrotoluene	1	17.063	17.058	0.005	19735	0.0500	0.0487	M
19 1,3,5-Trinitrobenzene	1	17.283	17.272	0.011	19358	0.0500	0.0457	M
20 2,6-Dinitrotoluene	1	18.369	18.365	0.004	14197	0.0500	0.0511	
21 2,4-Dinitrotoluene	1	18.823	18.818	0.005	28589	0.0500	0.0516	
22 Tetryl	1	22.023	22.025	-0.002	15630	0.0500	0.0487	M
23 2,4,6-Trinitrotoluene	1	22.876	22.878	-0.002	20131	0.0500	0.0504	M
24 PETN	2	24.016	24.032	-0.016	60616	0.5000	0.5056	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 5.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d

Injection Date: 25-Apr-2024 01:03:56

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 3

Worklist Smp#: 16

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

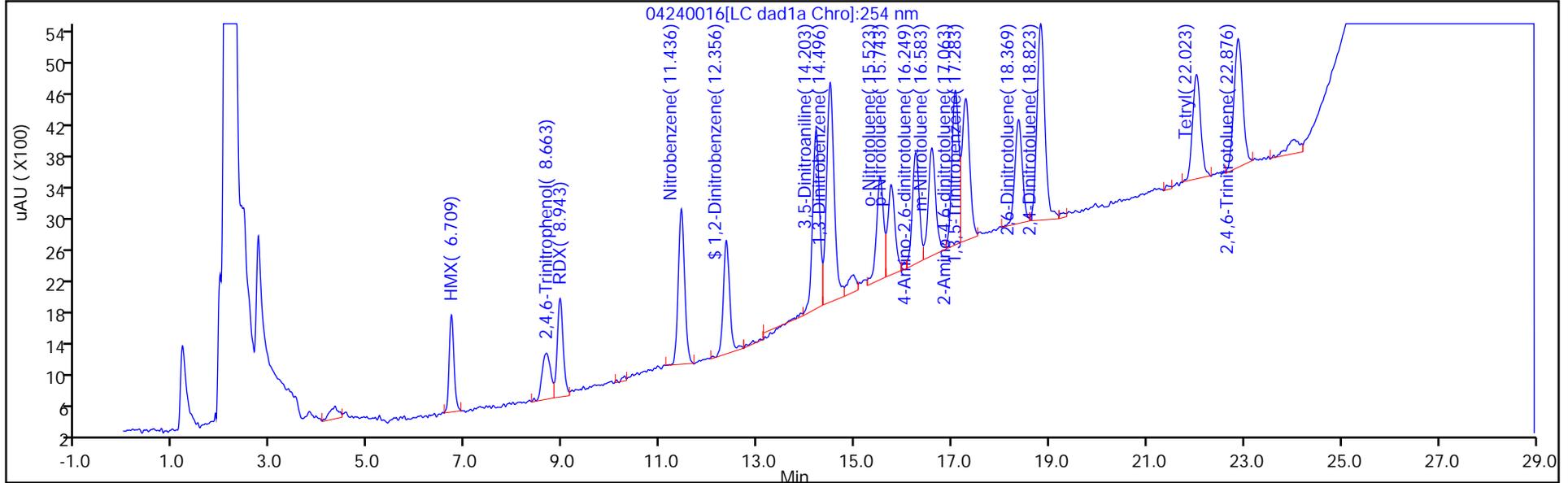
ALS Bottle#: 16

Method: G2_8330_Luna

Limit Group: GCSV - 8330

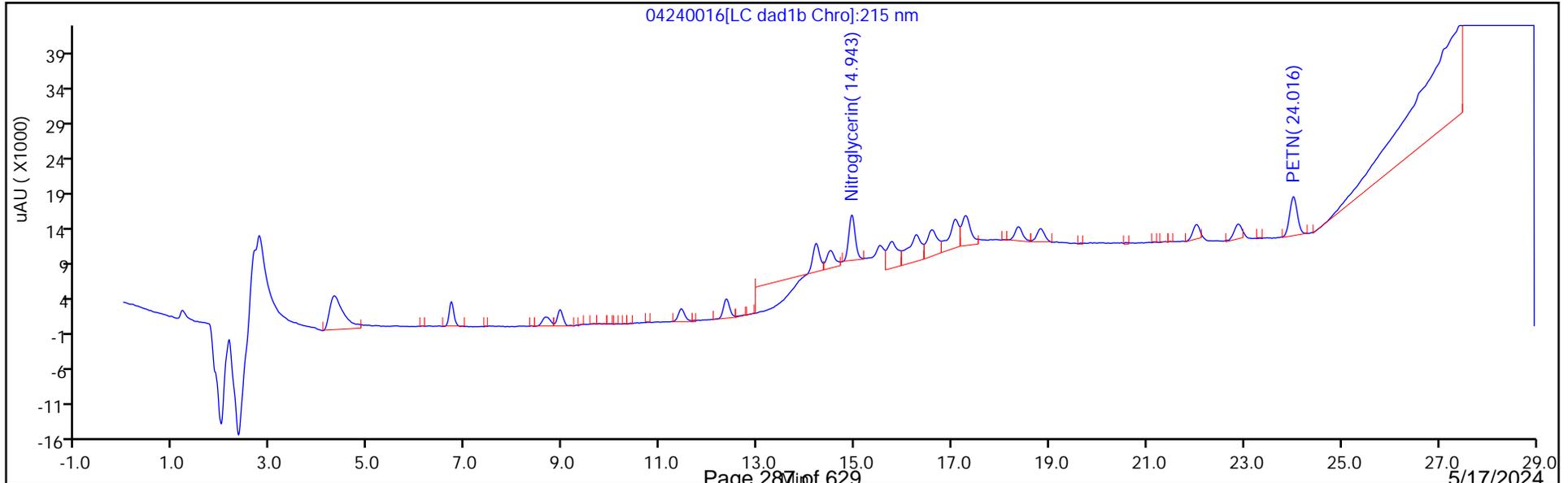
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

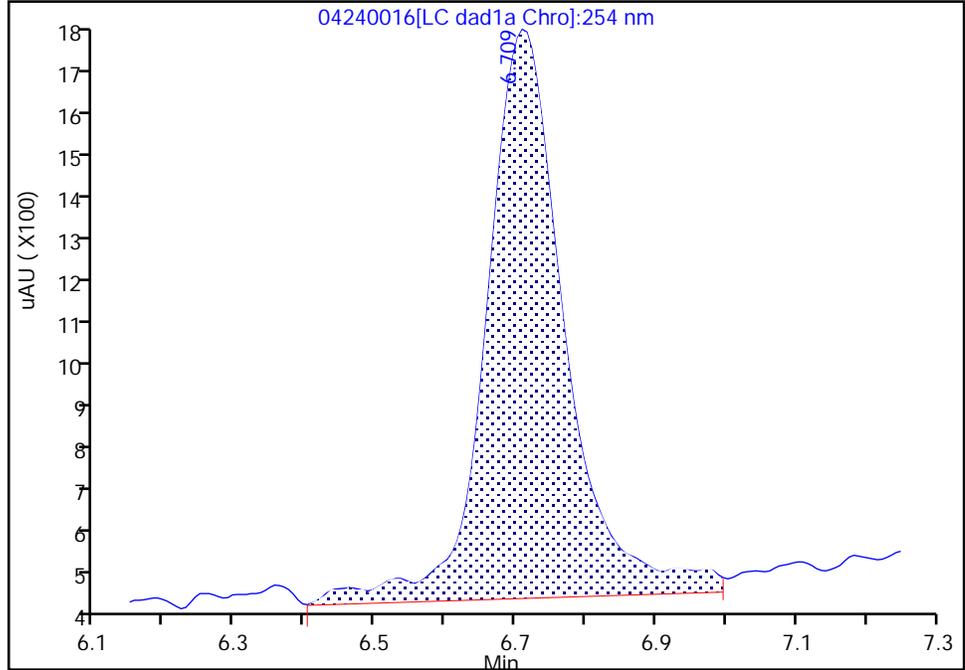
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

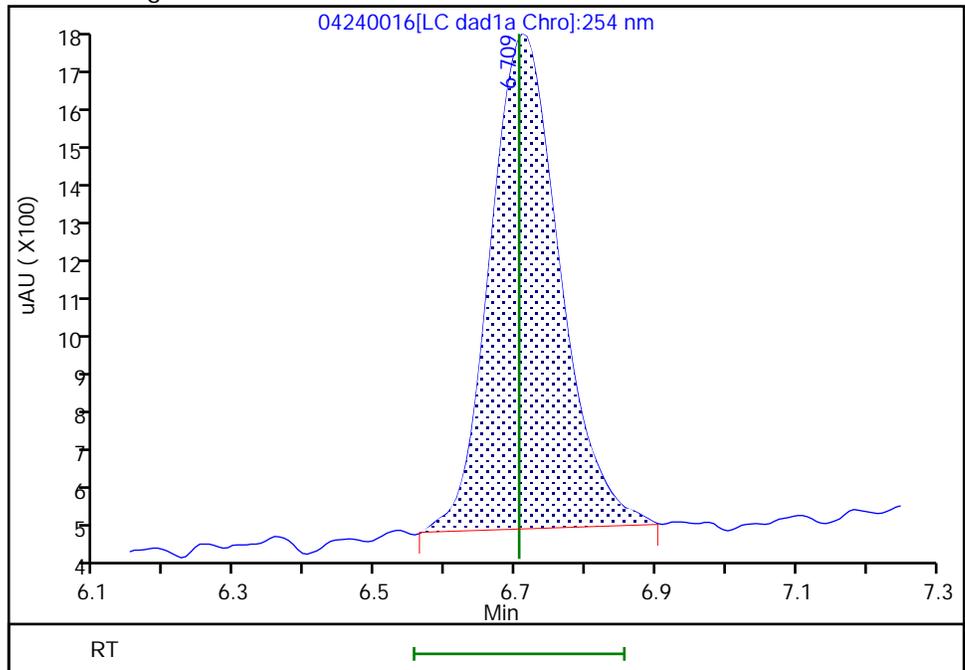
RT: 6.71
Area: 10052
Amount: 0.056576
Amount Units: ug/ml

Processing Integration Results



RT: 6.71
Area: 8509
Amount: 0.048881
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:05 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

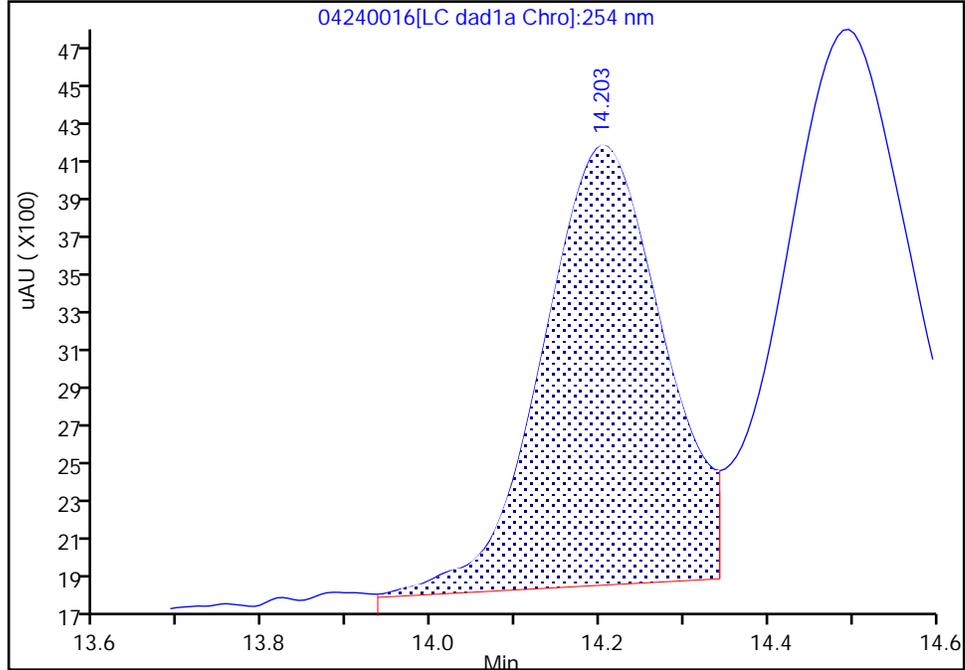
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

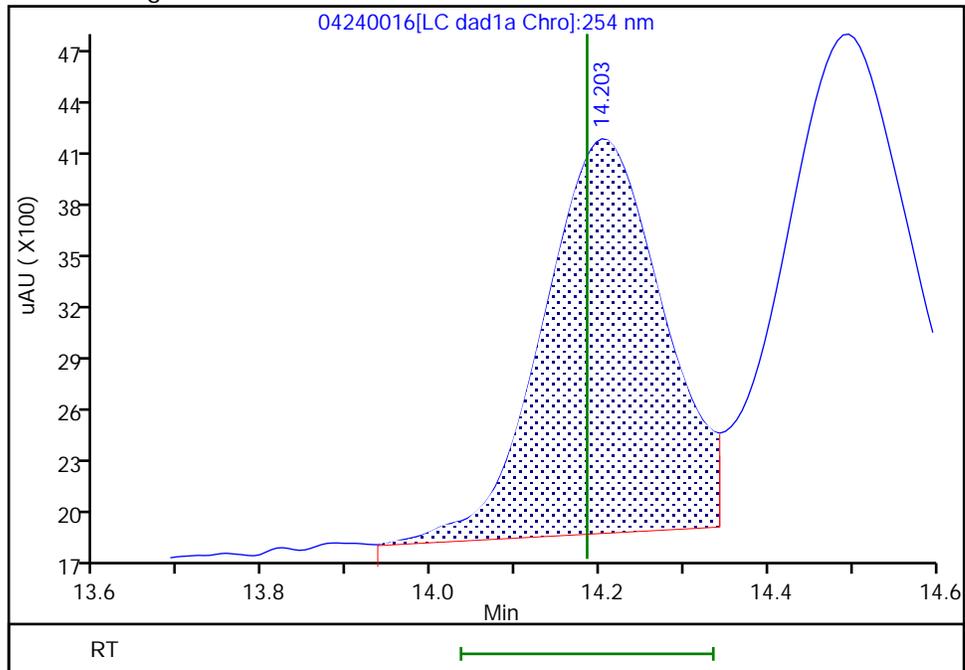
RT: 14.20
Area: 22811
Amount: 0.047887
Amount Units: ug/ml

Processing Integration Results



RT: 14.20
Area: 22481
Amount: 0.050060
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

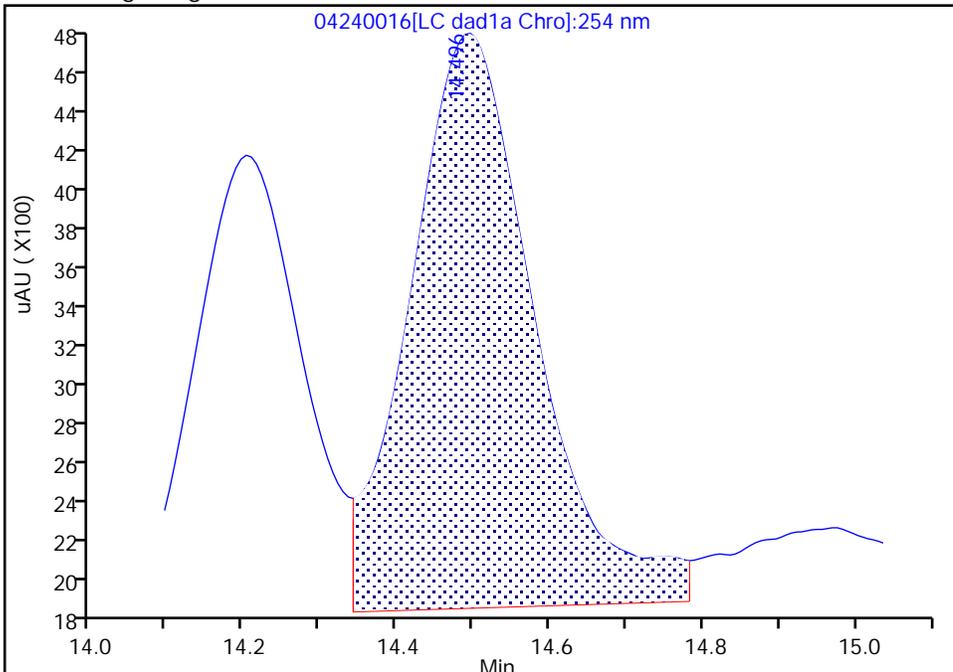
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

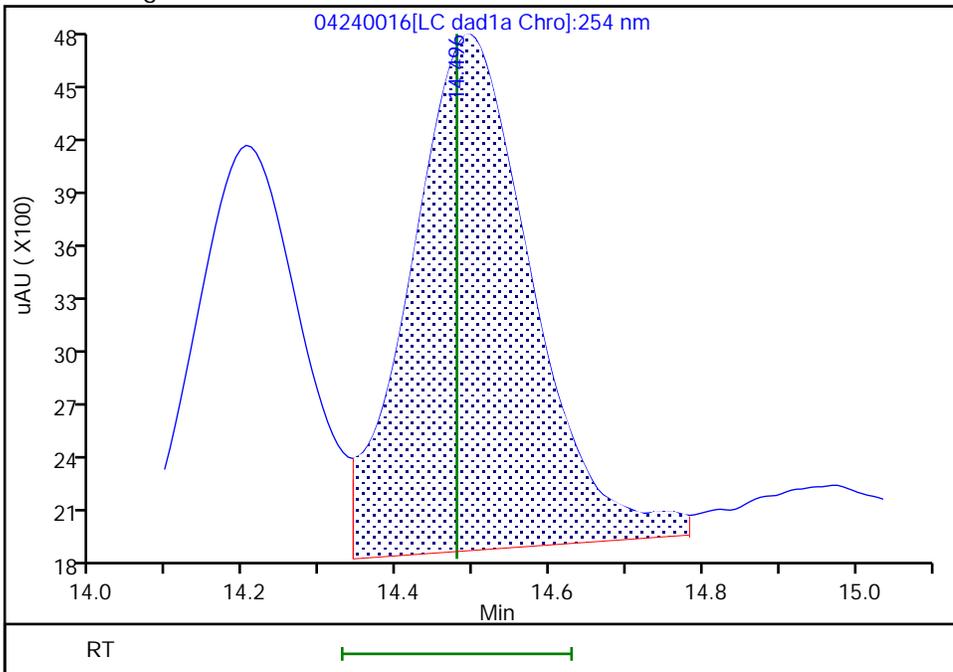
RT: 14.50
Area: 32206
Amount: 0.051373
Amount Units: ug/ml

Processing Integration Results



RT: 14.50
Area: 30596
Amount: 0.051909
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

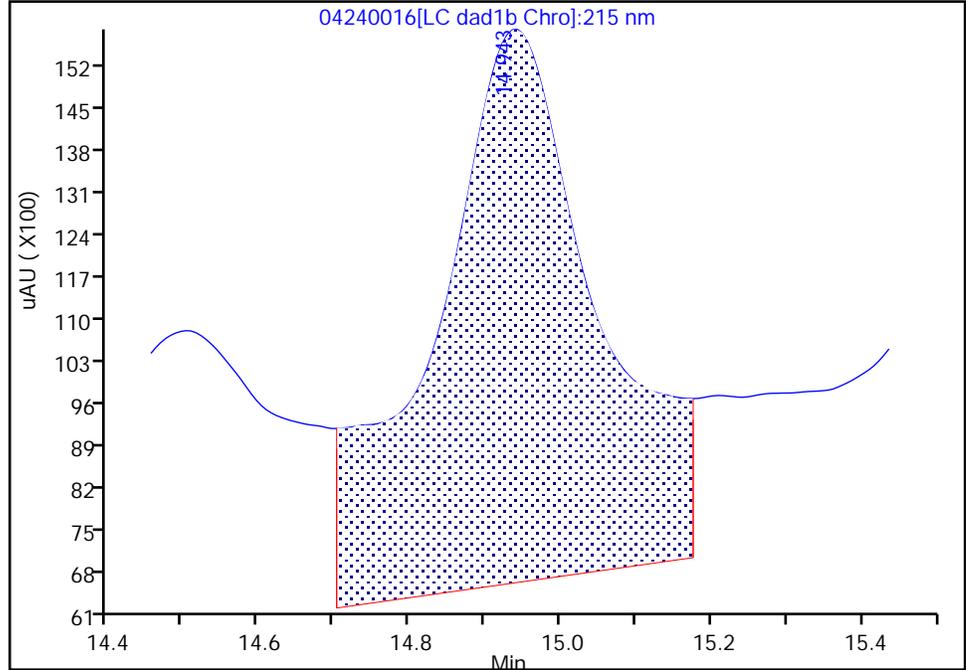
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

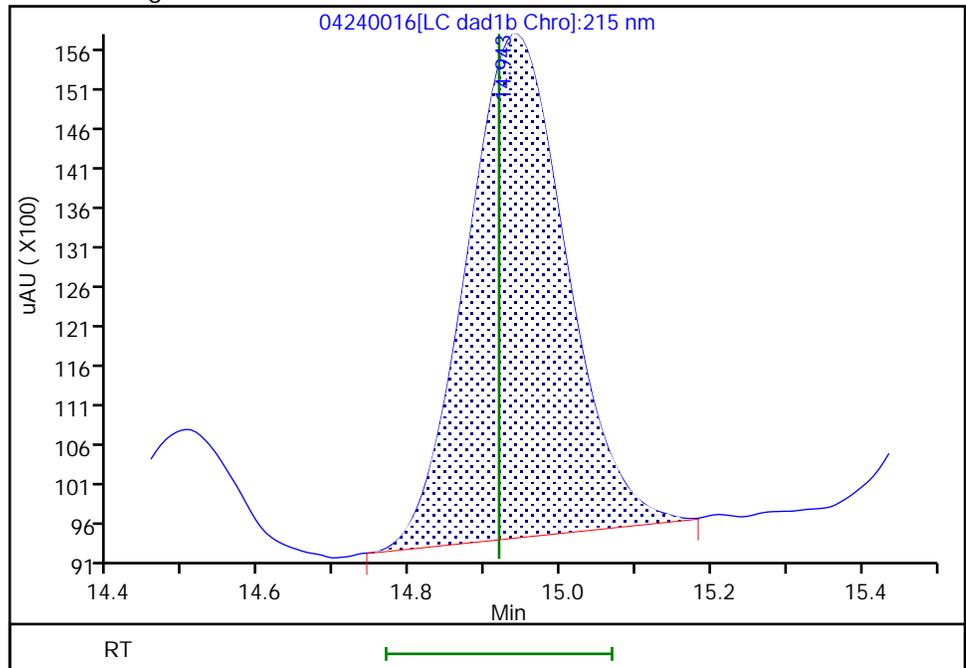
RT: 14.94
Area: 139941
Amount: 0.575003
Amount Units: ug/ml

Processing Integration Results



RT: 14.94
Area: 59130
Amount: 0.494792
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:51 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

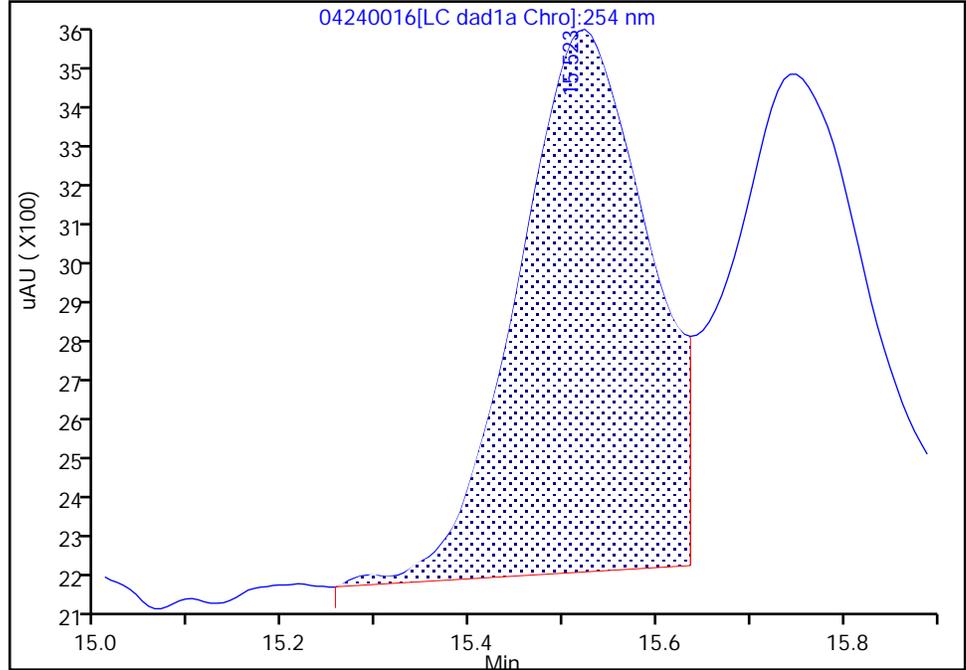
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

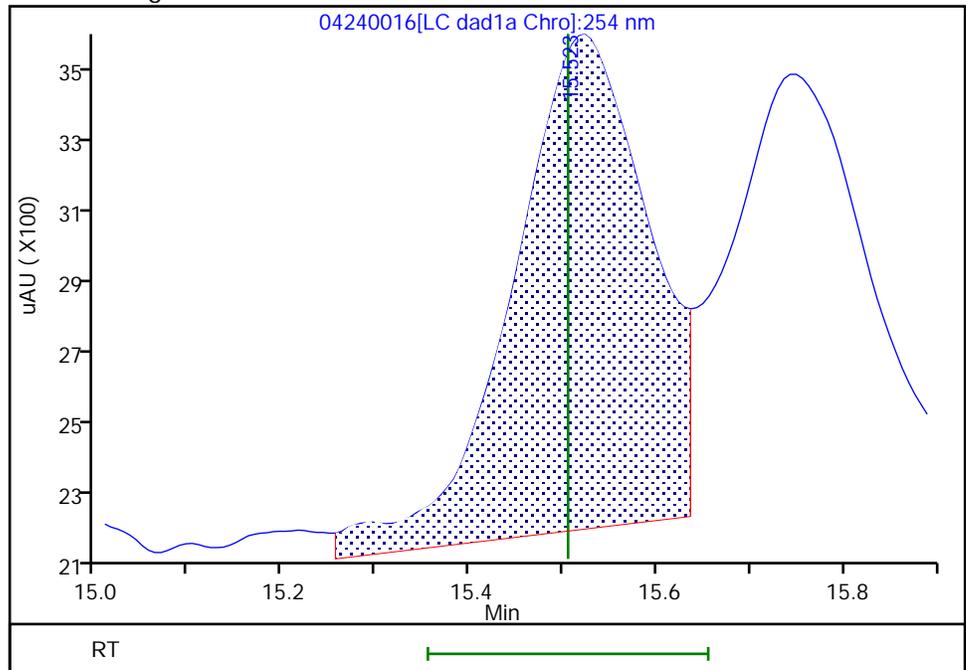
RT: 15.52
Area: 12415
Amount: 0.046079
Amount Units: ug/ml

Processing Integration Results



RT: 15.52
Area: 13247
Amount: 0.054159
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

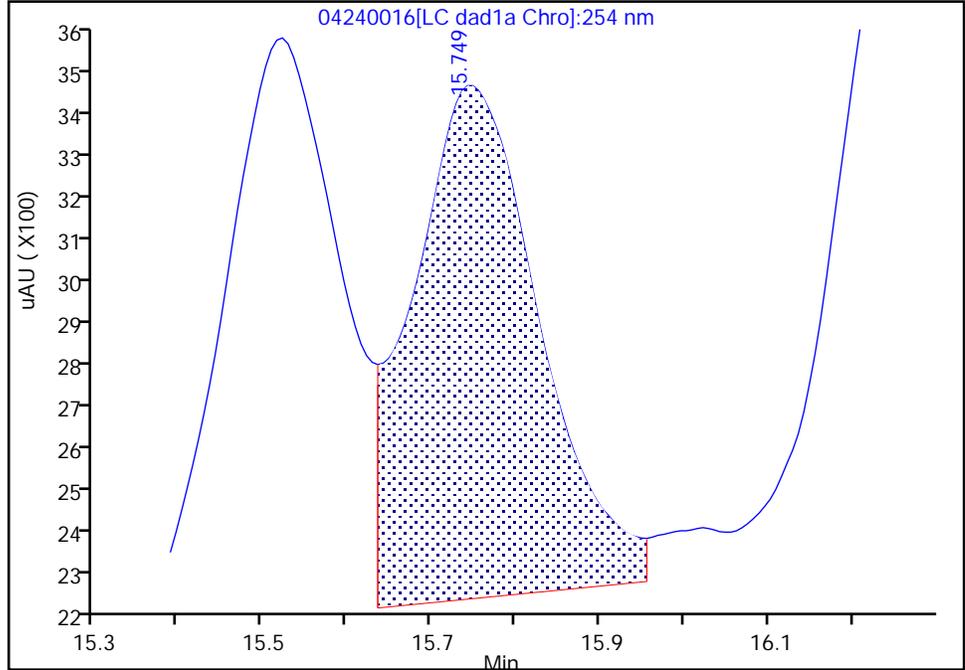
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

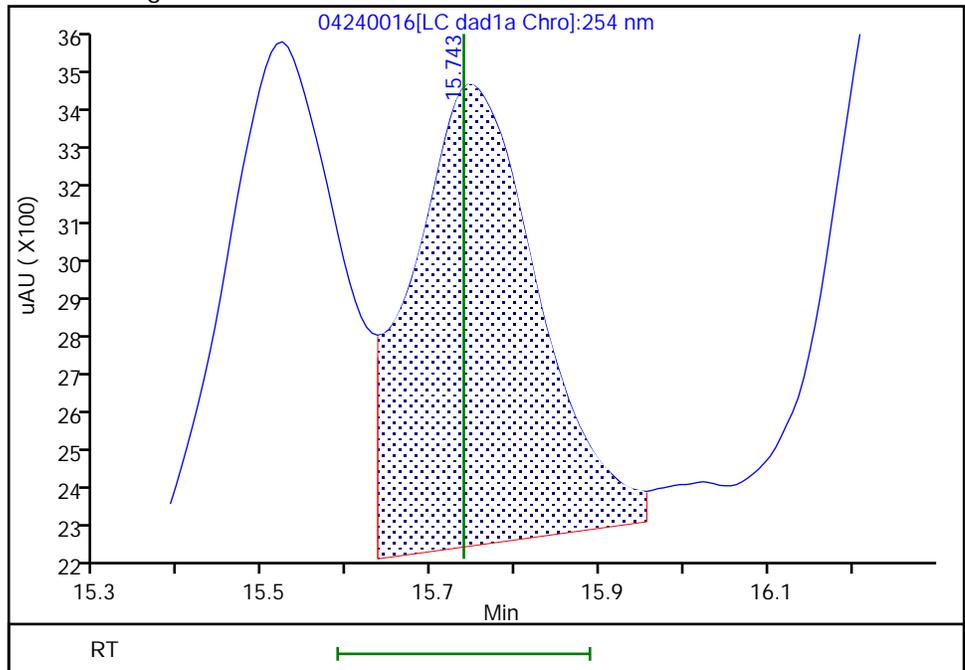
RT: 15.75
Area: 11979
Amount: 0.047481
Amount Units: ug/ml

Processing Integration Results



RT: 15.74
Area: 11825
Amount: 0.050097
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

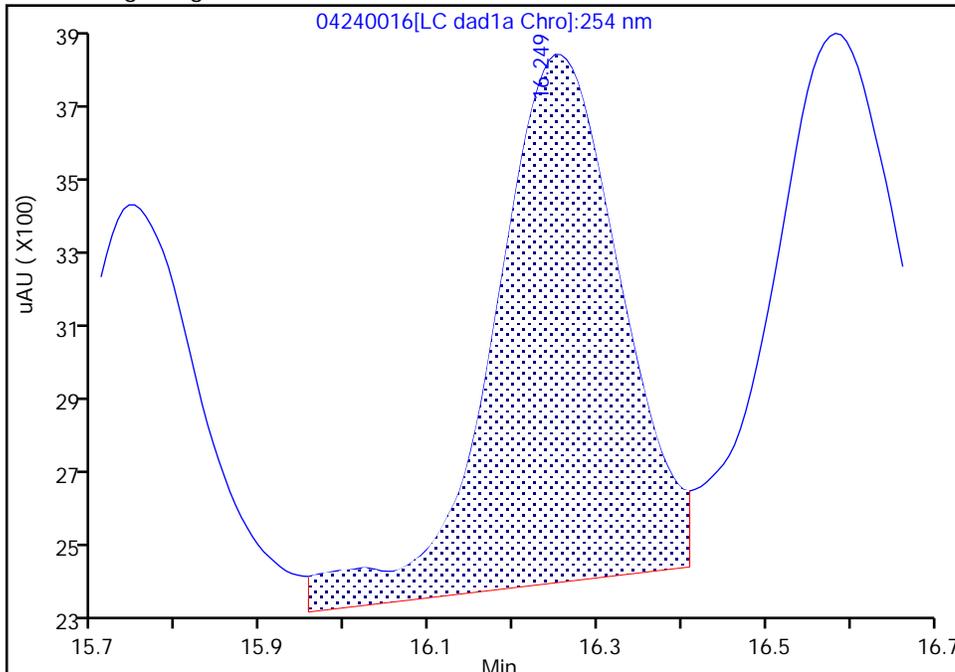
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

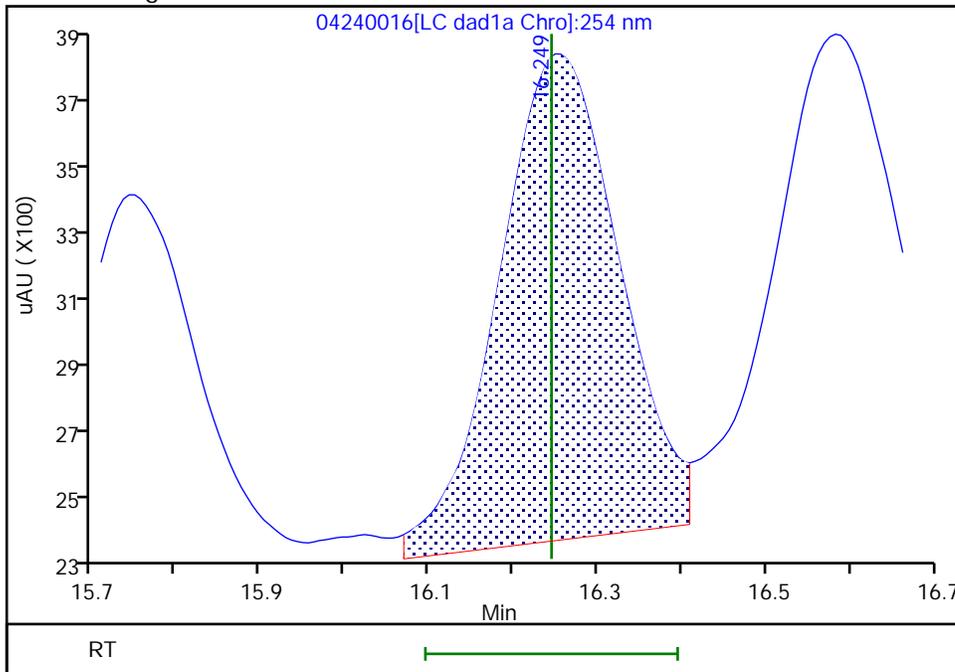
RT: 16.25
Area: 15163
Amount: 0.045904
Amount Units: ug/ml

Processing Integration Results



RT: 16.25
Area: 13955
Amount: 0.049024
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:16 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

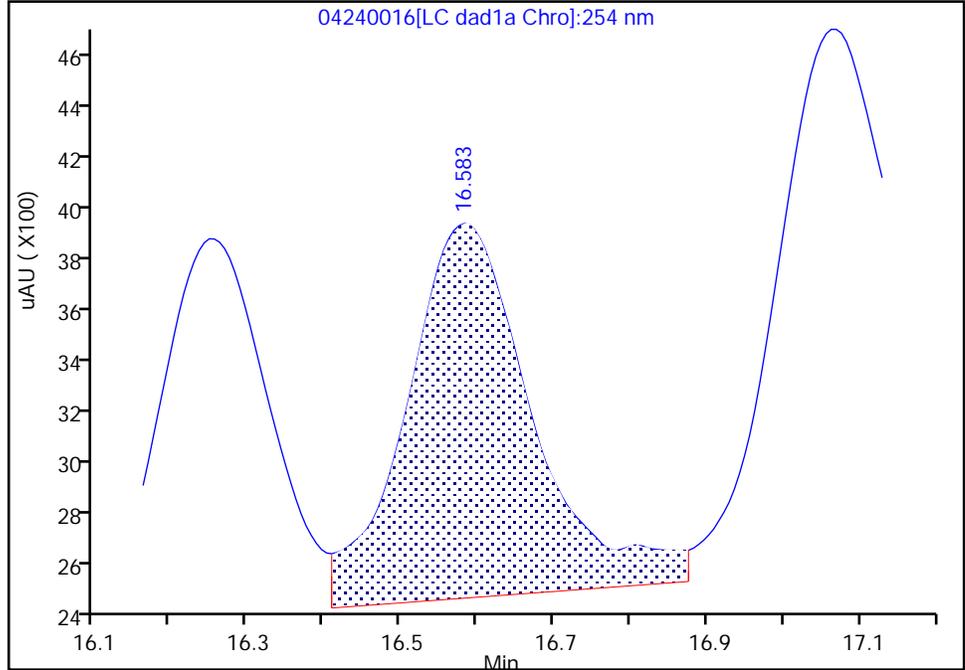
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

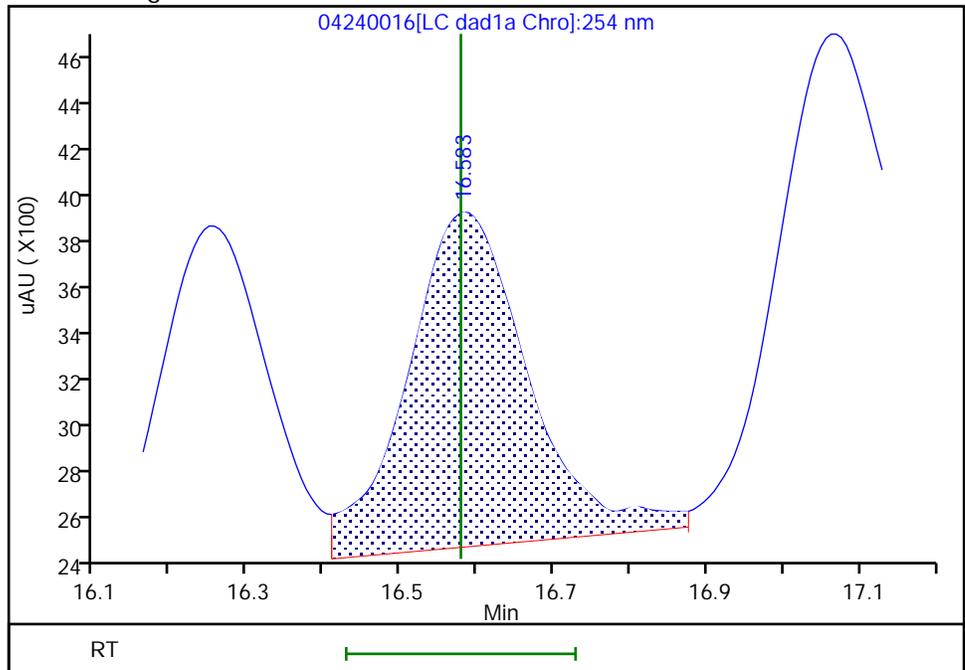
RT: 16.58
Area: 16173
Amount: 0.050420
Amount Units: ug/ml

Processing Integration Results



RT: 16.58
Area: 14941
Amount: 0.050699
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

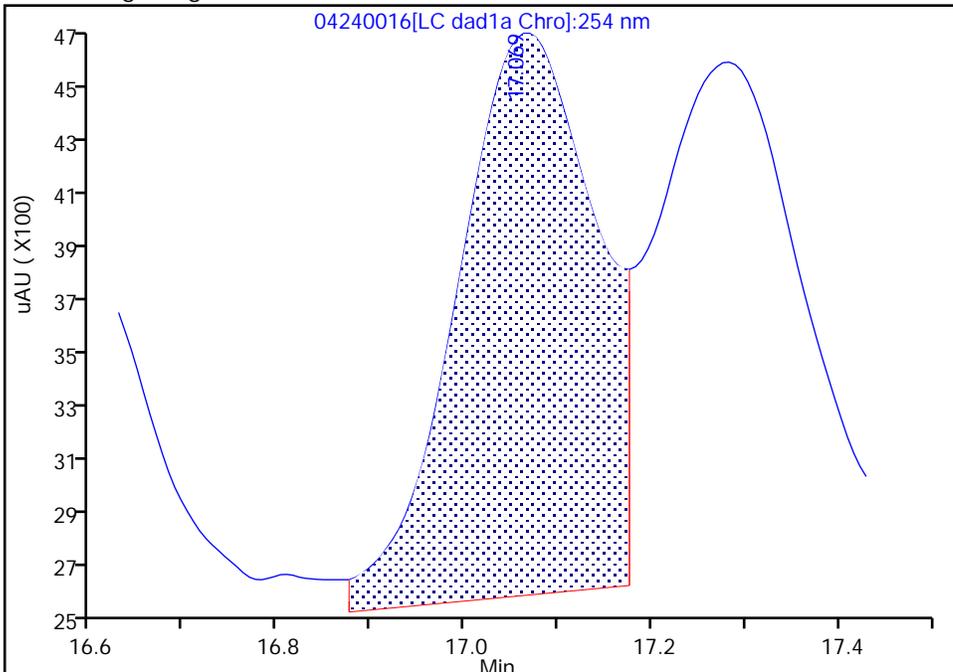
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

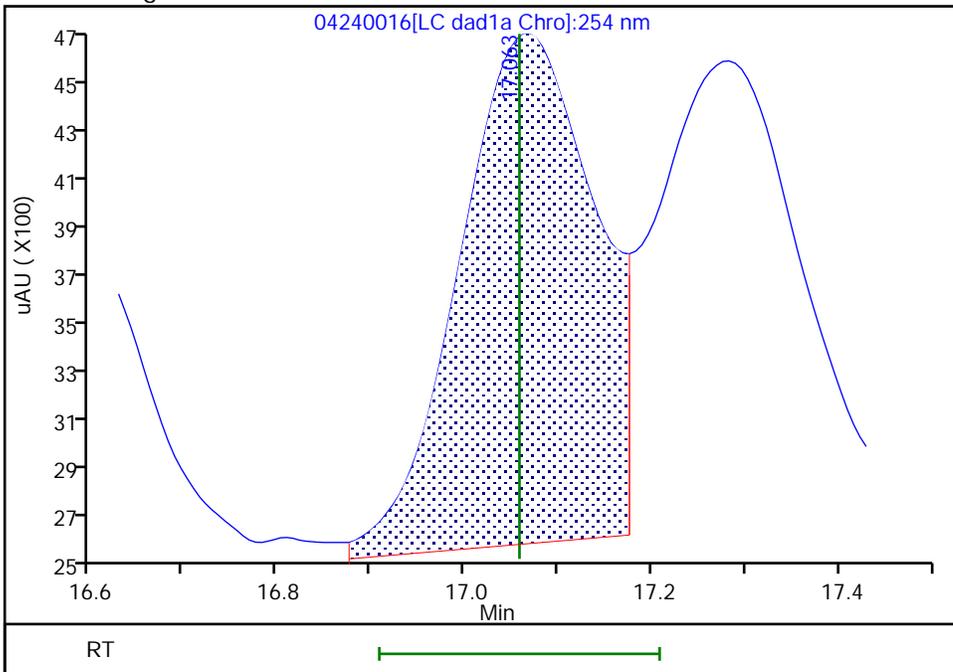
RT: 17.07
Area: 20716
Amount: 0.047421
Amount Units: ug/ml

Processing Integration Results



RT: 17.06
Area: 19735
Amount: 0.048661
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

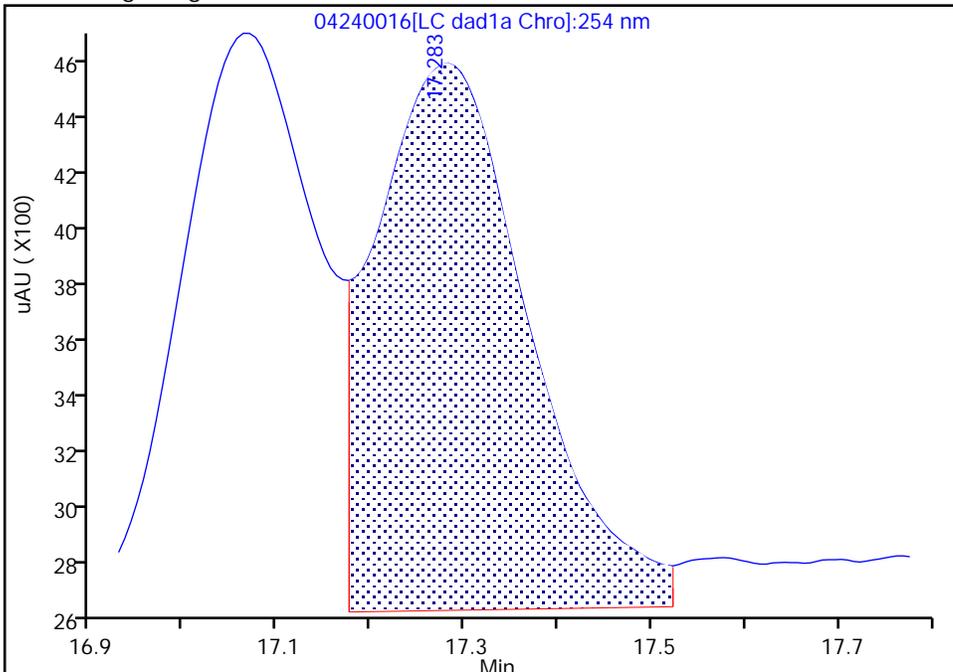
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
 Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 3
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

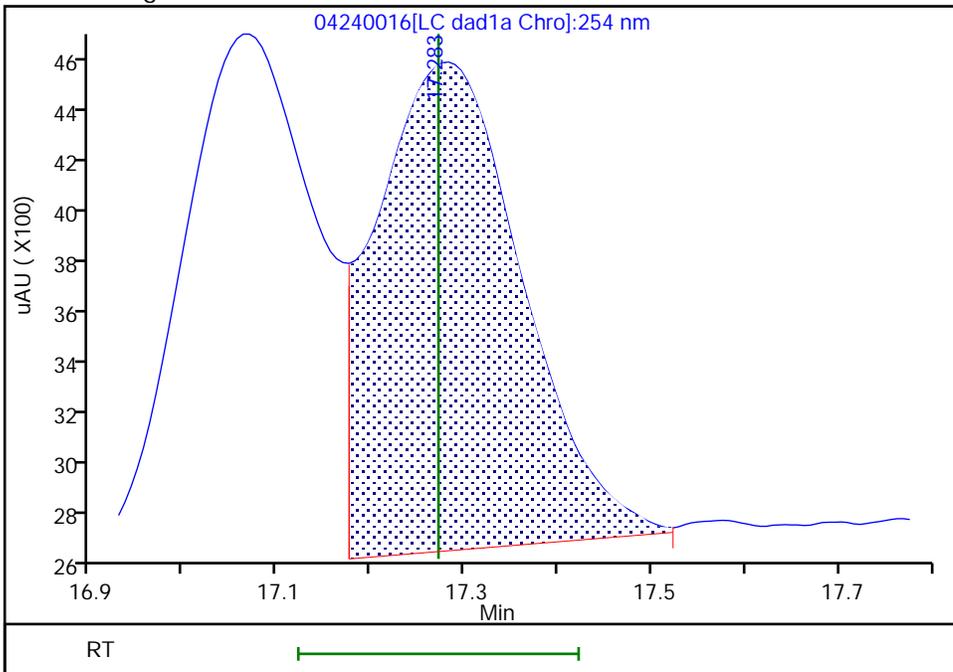
RT: 17.28
 Area: 21240
 Amount: 0.046378
 Amount Units: ug/ml

Processing Integration Results



RT: 17.28
 Area: 19358
 Amount: 0.045714
 Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

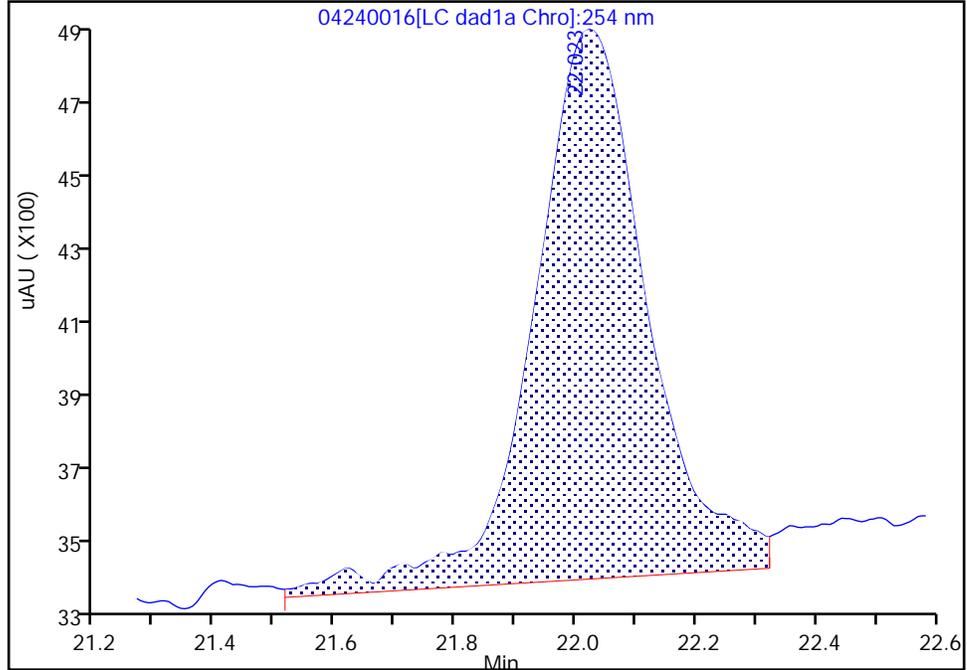
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

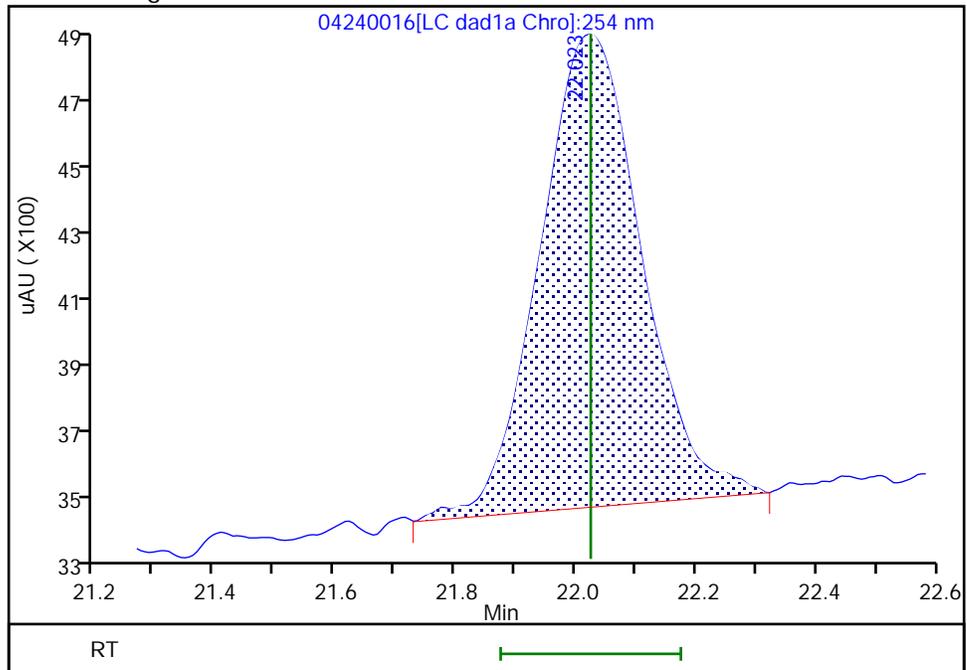
RT: 22.02
Area: 18537
Amount: 0.055520
Amount Units: ug/ml

Processing Integration Results



RT: 22.02
Area: 15630
Amount: 0.048664
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

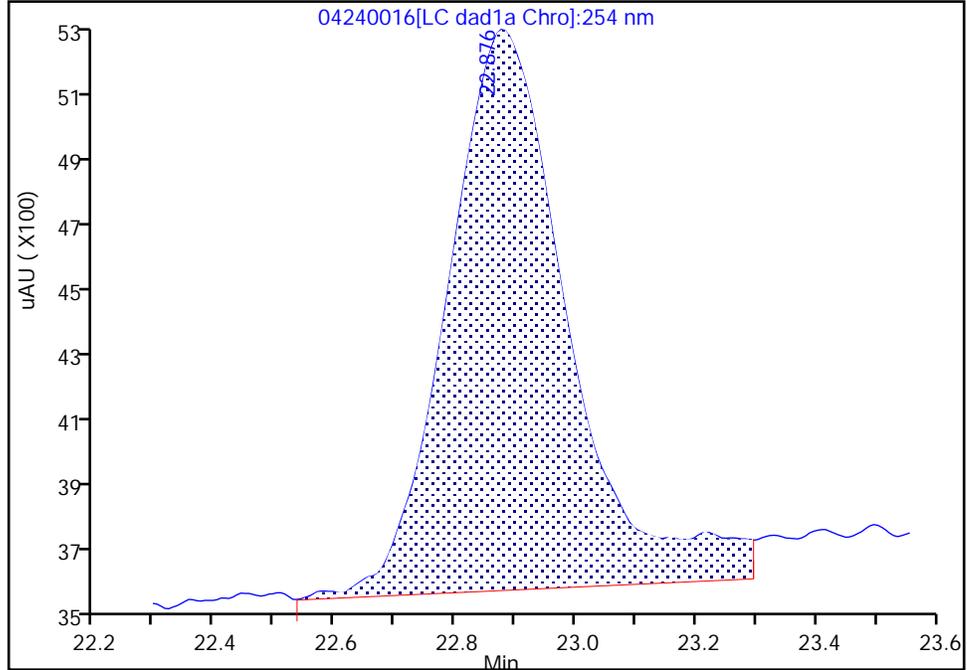
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

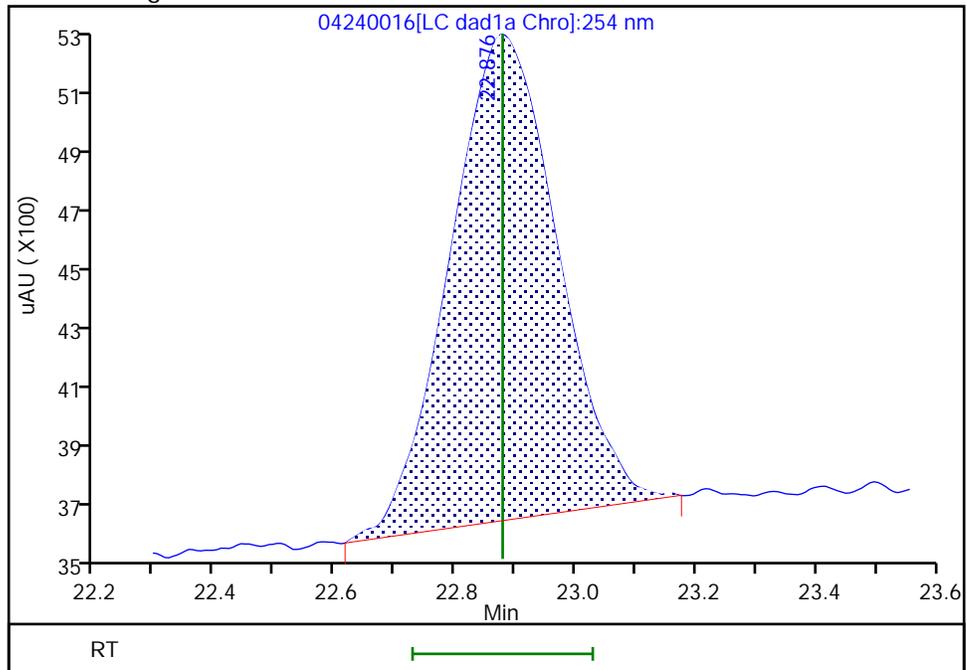
RT: 22.88
Area: 23576
Amount: 0.051829
Amount Units: ug/ml

Processing Integration Results



RT: 22.88
Area: 20131
Amount: 0.050357
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

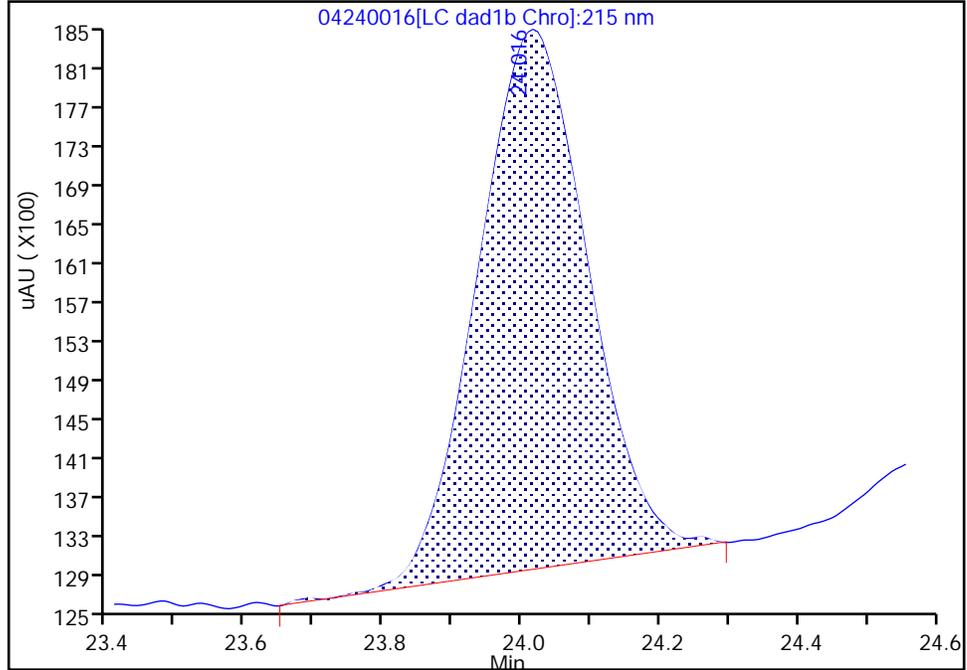
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

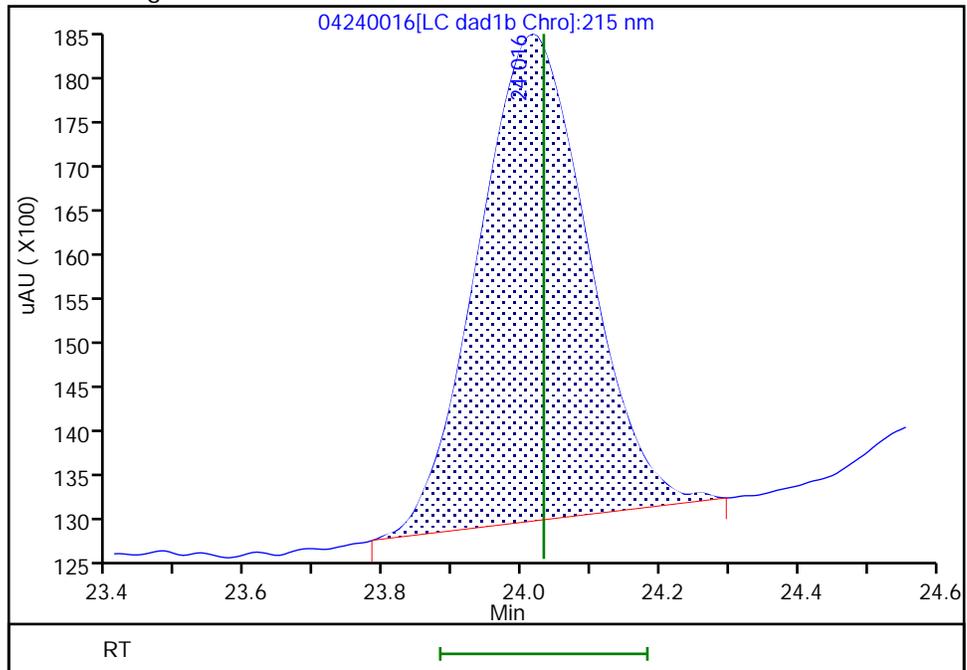
RT: 24.02
Area: 61268
Amount: 0.511464
Amount Units: ug/ml

Processing Integration Results



RT: 24.02
Area: 60616
Amount: 0.505642
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:39:12 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240017.D
 Lims ID: IC INT 2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 25-Apr-2024 01:39:50 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:17 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.712	6.705	0.007	3578	0.0200	0.0206	M
5 2,4,6-Trinitrophenol	1	8.726	8.612	0.114	3302	0.0200	0.0218	M
8 RDX	1	8.952	8.938	0.014	4791	0.0200	0.0207	M
9 Nitrobenzene	1	11.459	11.425	0.034	8101	0.0200	0.0212	M
\$ 10 1,2-Dinitrobenzene	1	12.392	12.345	0.047	5474	0.0200	0.0212	M
11 3,5-Dinitroaniline	1	14.232	14.185	0.047	9463	0.0200	0.0198	M
12 1,3-Dinitrobenzene	1	14.519	14.478	0.041	12318	0.0200	0.0209	M
13 Nitroglycerin	2	14.979	14.918	0.061	23877	0.2000	0.1998	M
14 o-Nitrotoluene	1	15.559	15.505	0.054	5024	0.0200	0.0205	M
15 p-Nitrotoluene	1	15.772	15.738	0.034	5278	0.0200	0.0200	M
16 4-Amino-2,6-dinitrotoluene	1	16.286	16.245	0.041	6474	0.0200	0.0213	M
17 m-Nitrotoluene	1	16.619	16.578	0.041	6685	0.0200	0.0207	M
18 2-Amino-4,6-dinitrotoluene	1	17.099	17.058	0.041	8733	0.0200	0.0215	M
19 1,3,5-Trinitrobenzene	1	17.306	17.272	0.034	9167	0.0200	0.0216	M
20 2,6-Dinitrotoluene	1	18.386	18.365	0.021	6113	0.0200	0.0220	M
21 2,4-Dinitrotoluene	1	18.846	18.818	0.028	12005	0.0200	0.0216	M
22 Tetryl	1	22.072	22.025	0.047	6268	0.0200	0.0187	M
23 2,4,6-Trinitrotoluene	1	22.926	22.878	0.048	7969	0.0200	0.0199	M
24 PETN	2	24.046	24.032	0.014	22594	0.2000	0.1979	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 2.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d

Injection Date: 25-Apr-2024 01:39:50

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 2

Worklist Smp#: 17

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

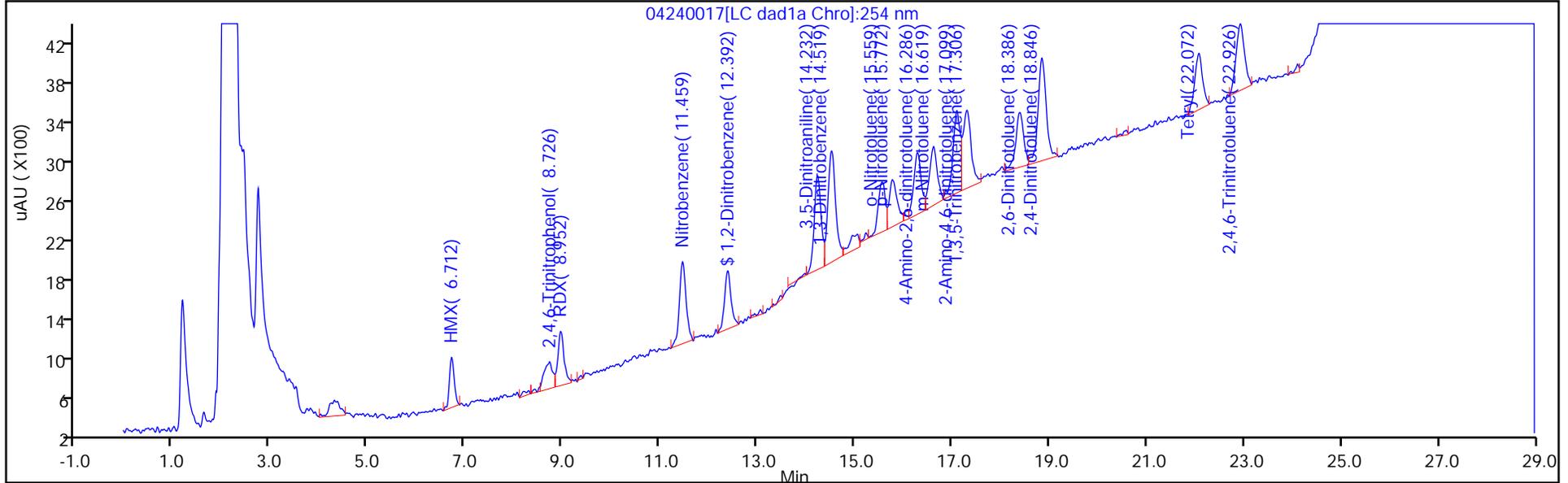
ALS Bottle#: 17

Method: G2_8330_Luna

Limit Group: GCSV - 8330

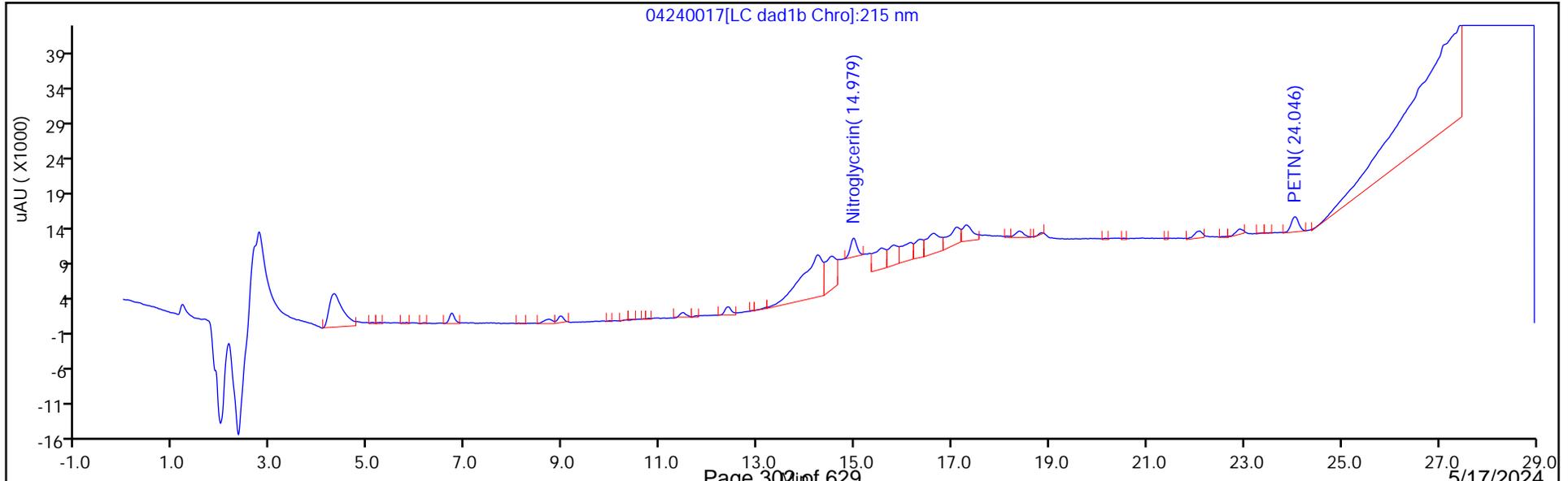
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

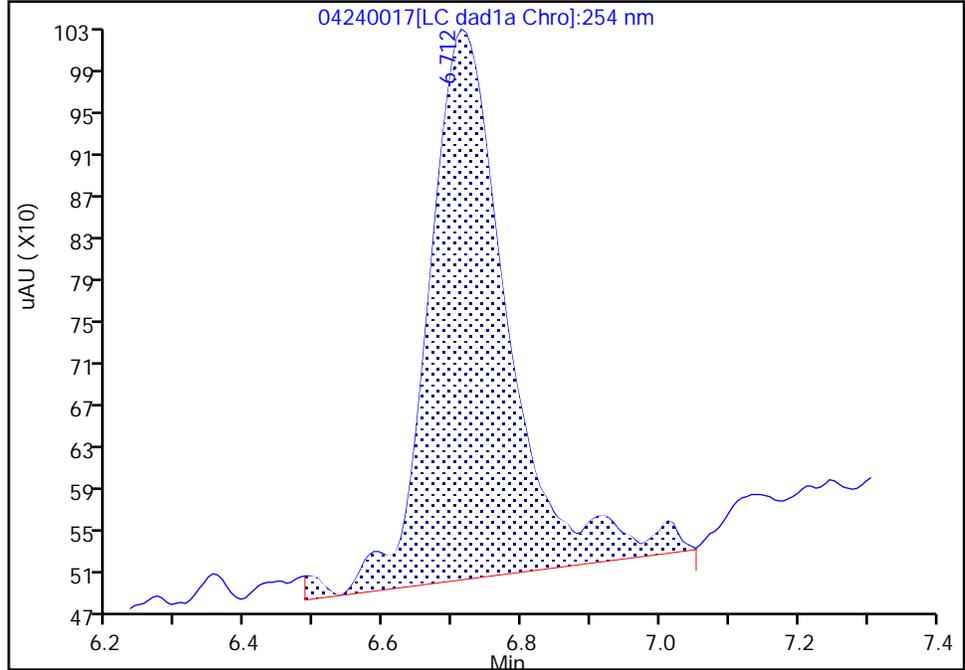
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

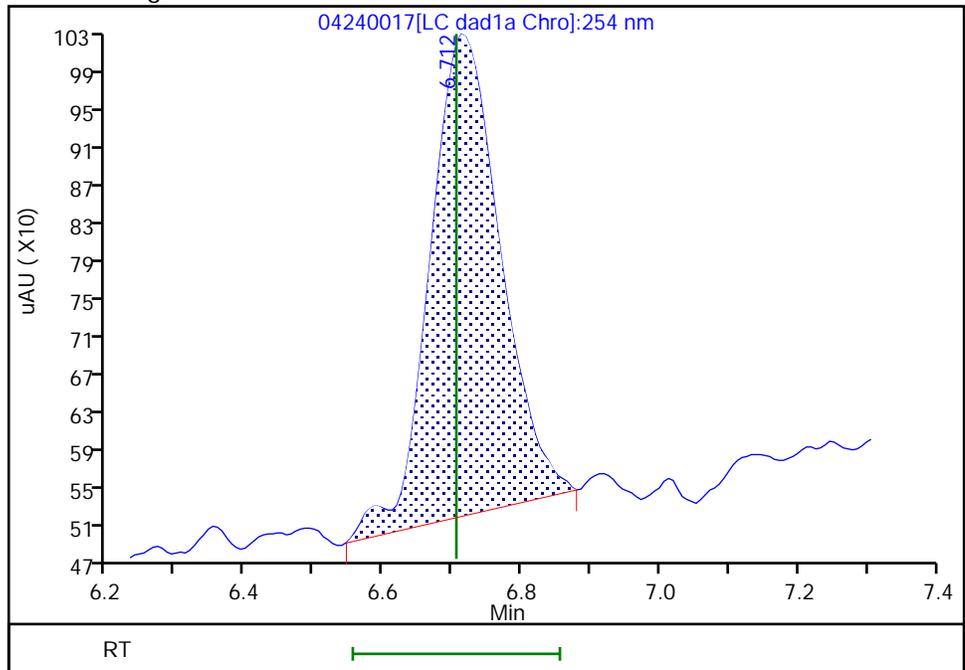
RT: 6.71
Area: 4168
Amount: 0.022927
Amount Units: ug/ml

Processing Integration Results



RT: 6.71
Area: 3578
Amount: 0.020554
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:31:57 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

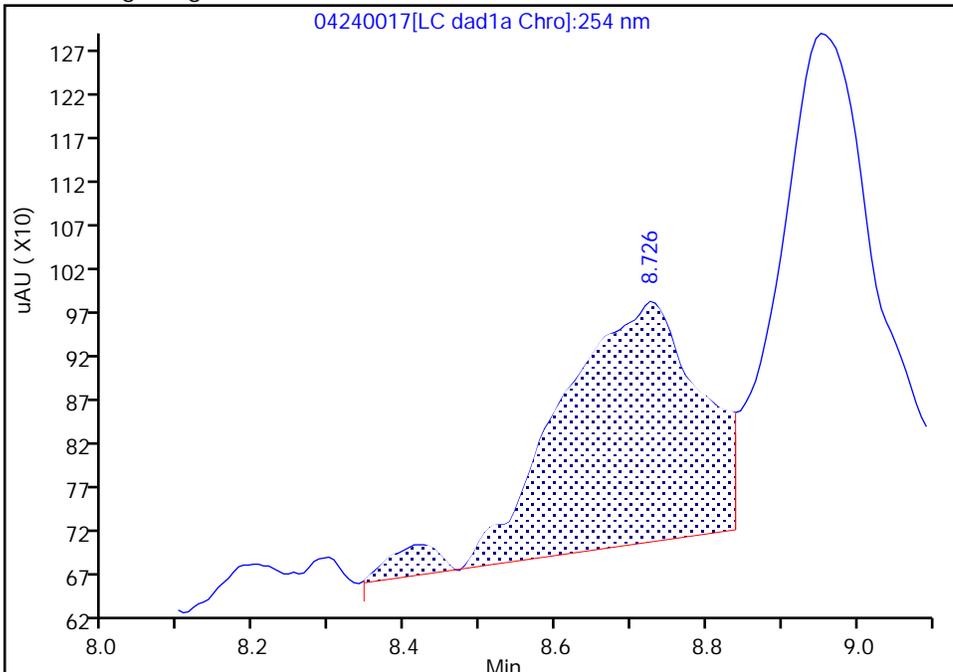
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

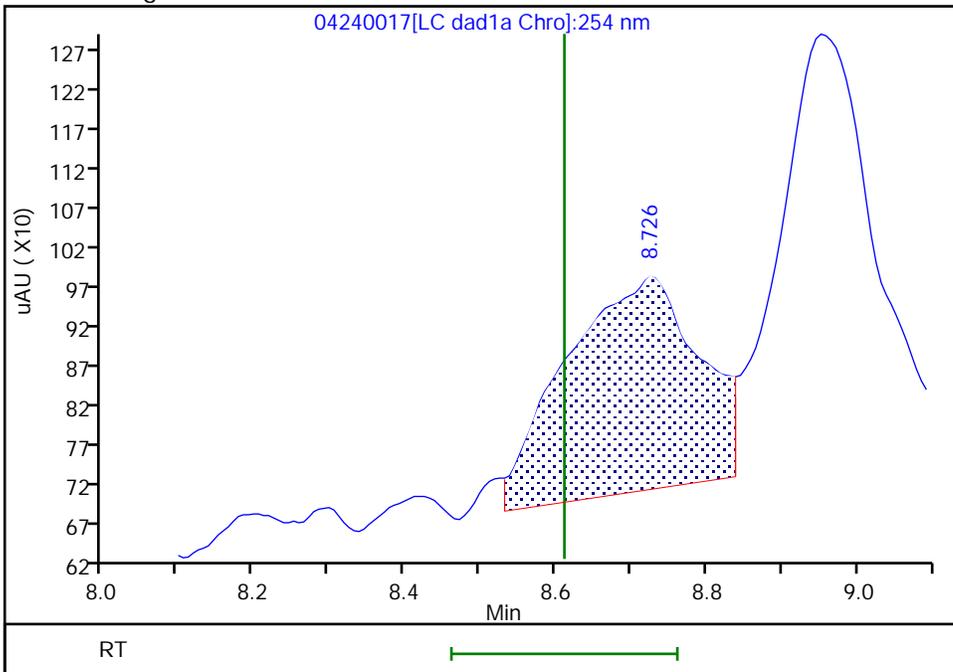
RT: 8.73
Area: 3653
Amount: 0.023822
Amount Units: ug/ml

Processing Integration Results



RT: 8.73
Area: 3302
Amount: 0.021810
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

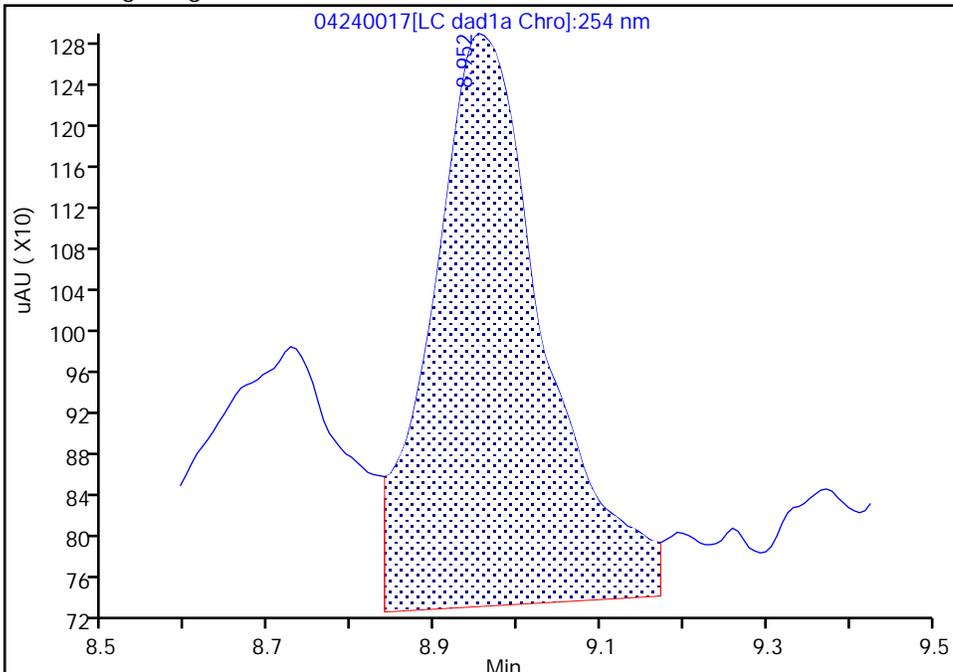
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
 Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 2
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

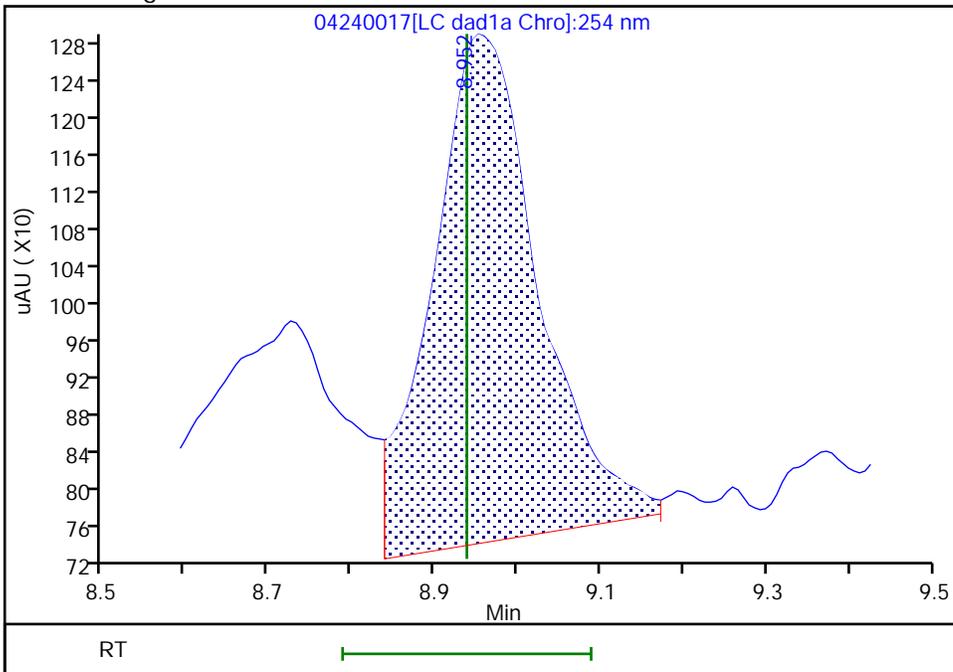
RT: 8.95
 Area: 5221
 Amount: 0.023799
 Amount Units: ug/ml

Processing Integration Results



RT: 8.95
 Area: 4791
 Amount: 0.020676
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:43 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

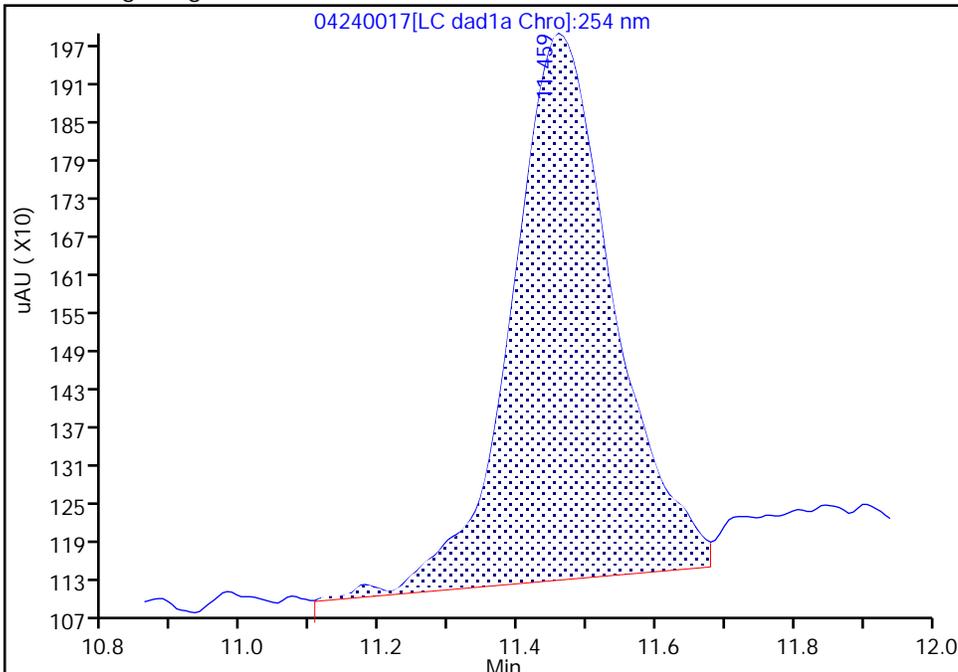
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

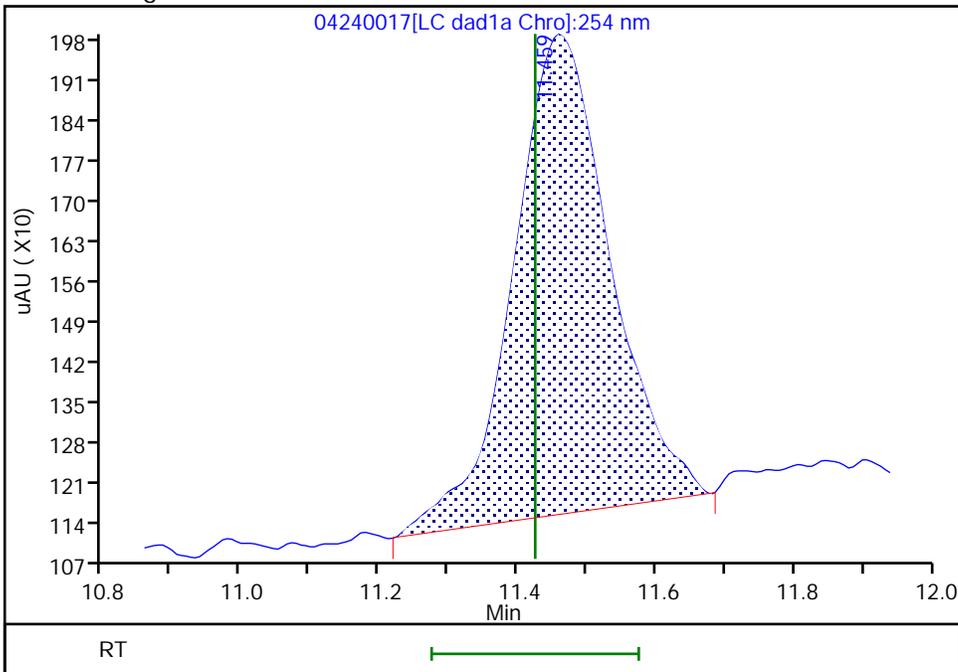
RT: 11.46
Area: 8748
Amount: 0.022033
Amount Units: ug/ml

Processing Integration Results



RT: 11.46
Area: 8101
Amount: 0.021200
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:13 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

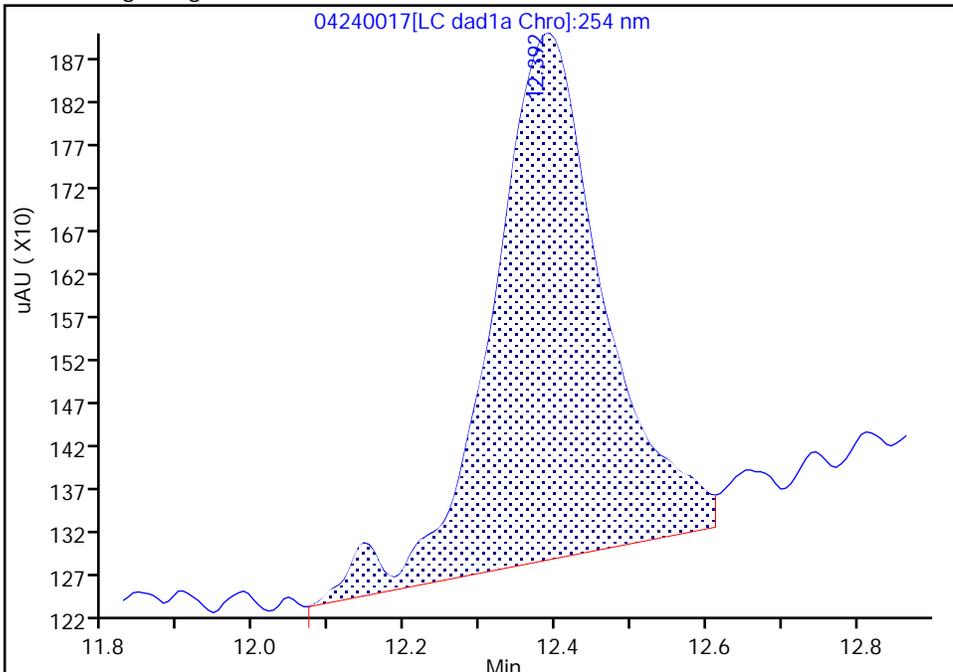
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

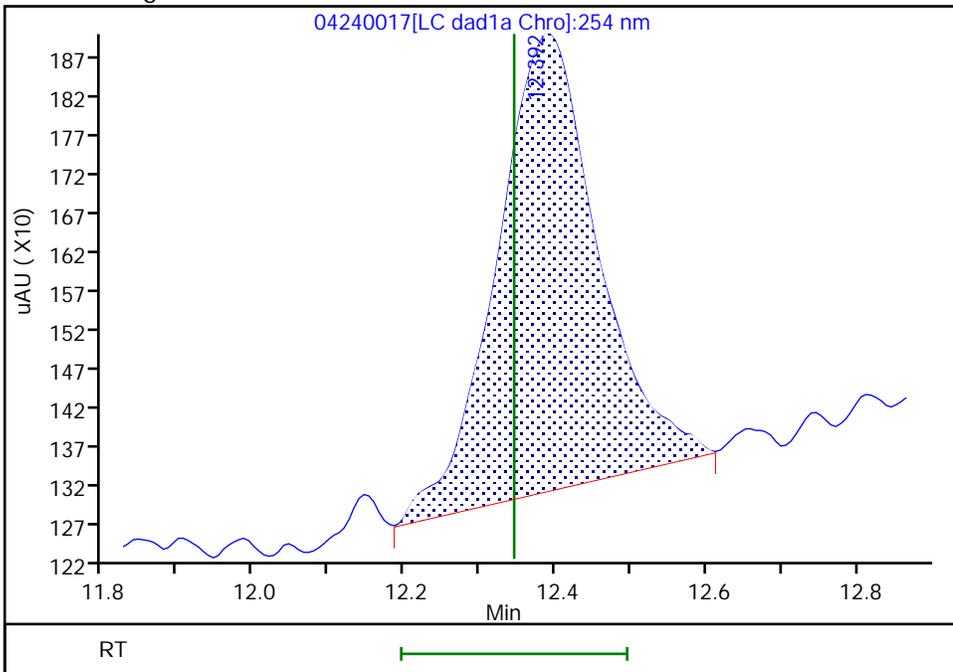
RT: 12.39
Area: 6341
Amount: 0.022761
Amount Units: ug/ml

Processing Integration Results



RT: 12.39
Area: 5474
Amount: 0.021161
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:19 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

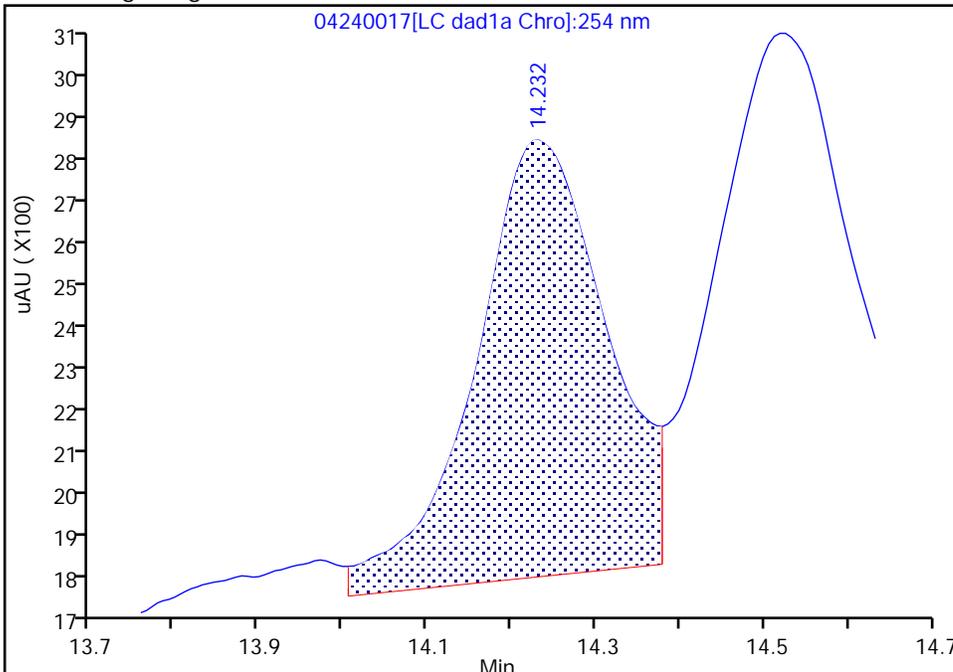
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

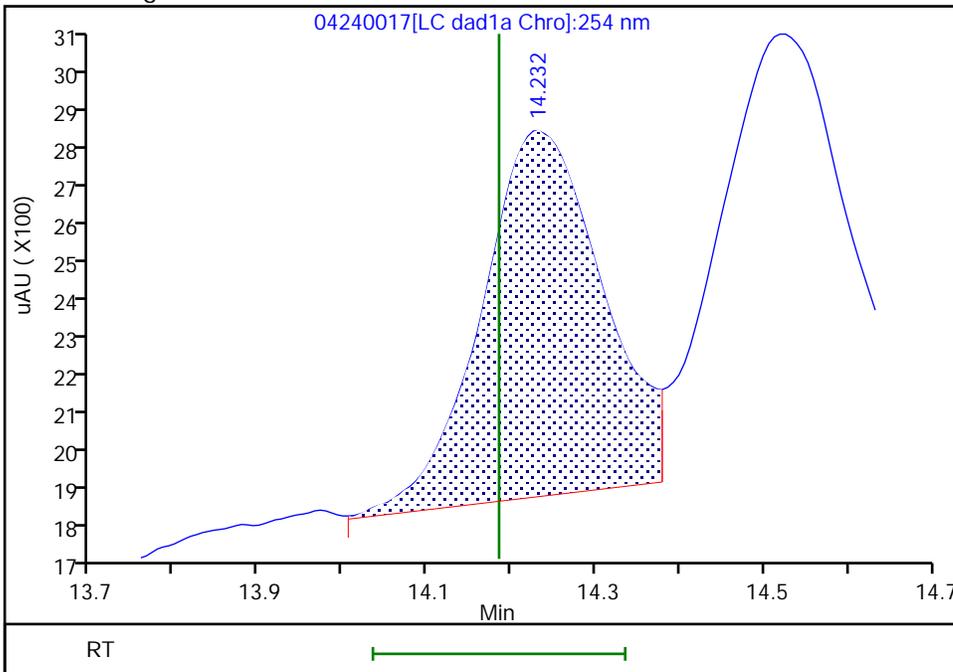
RT: 14.23
Area: 11110
Amount: 0.020331
Amount Units: ug/ml

Processing Integration Results



RT: 14.23
Area: 9463
Amount: 0.019837
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

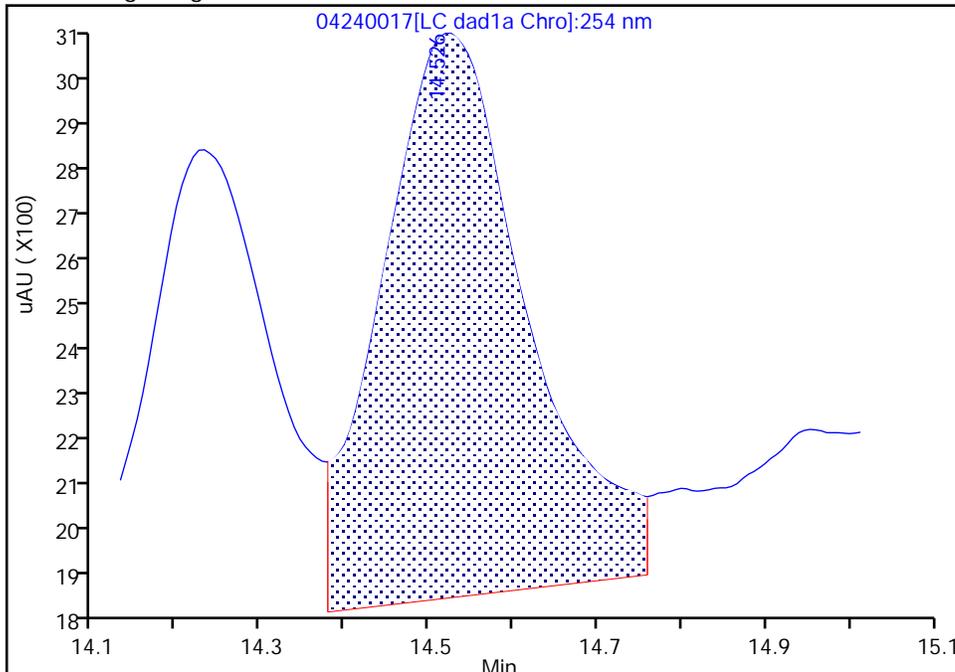
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

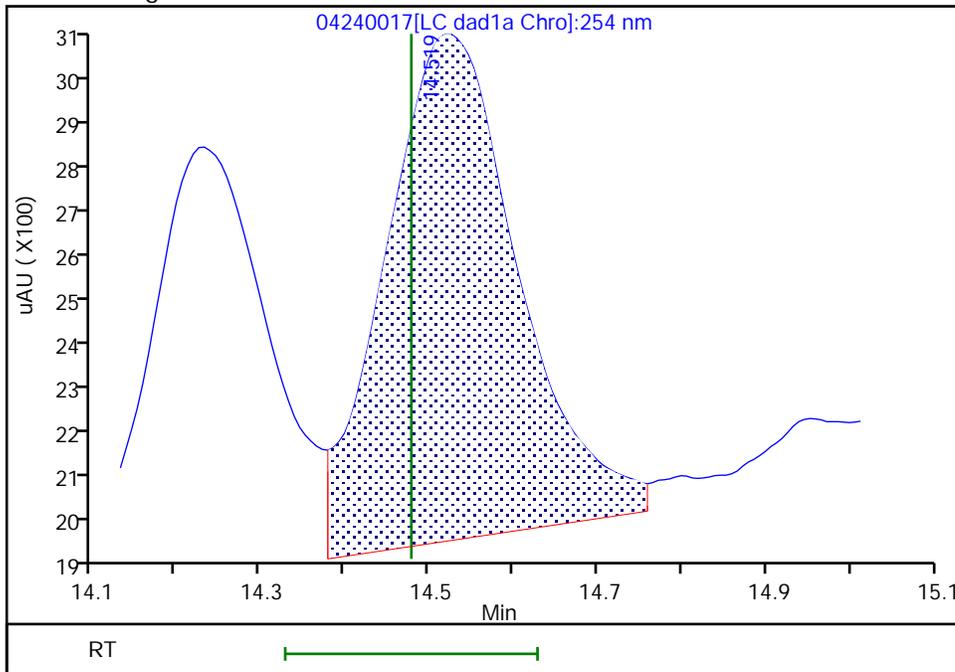
RT: 14.53
Area: 14484
Amount: 0.023237
Amount Units: ug/ml

Processing Integration Results



RT: 14.52
Area: 12318
Amount: 0.020899
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

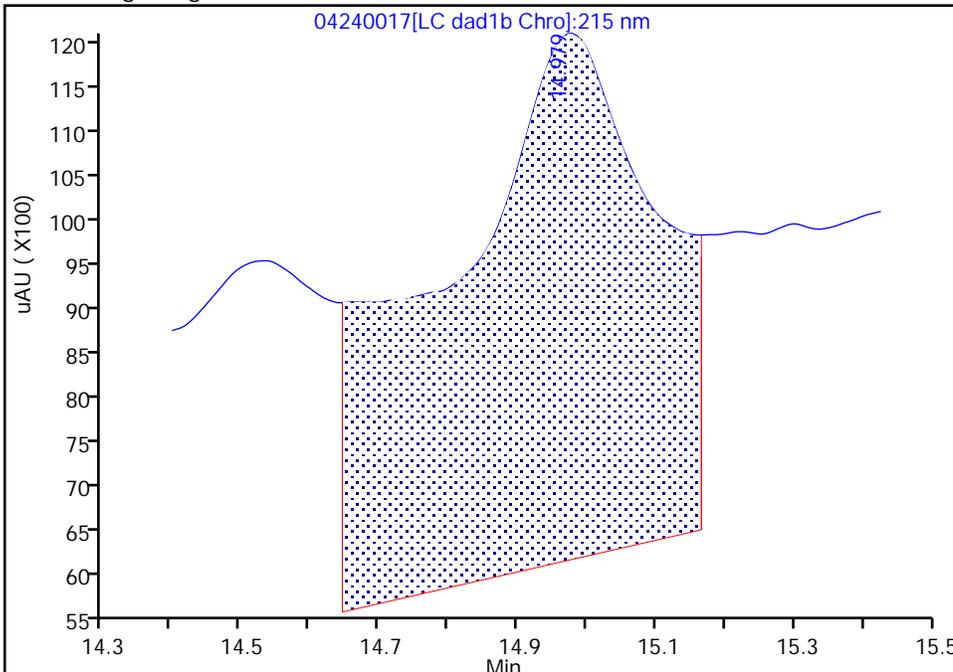
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

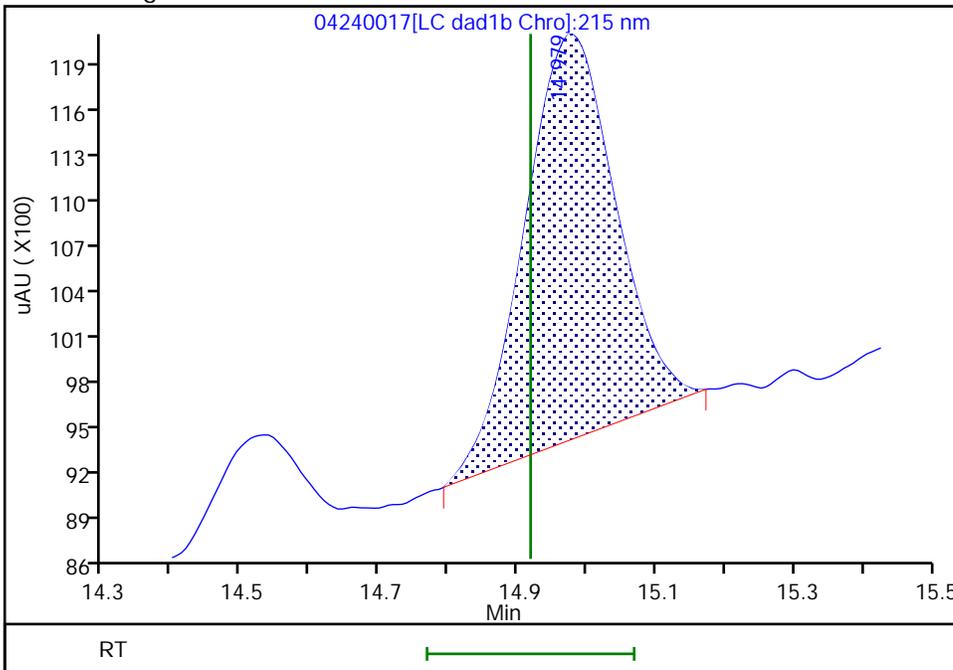
RT: 14.98
Area: 128754
Amount: 0.566536
Amount Units: ug/ml

Processing Integration Results



RT: 14.98
Area: 23877
Amount: 0.199800
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:23 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

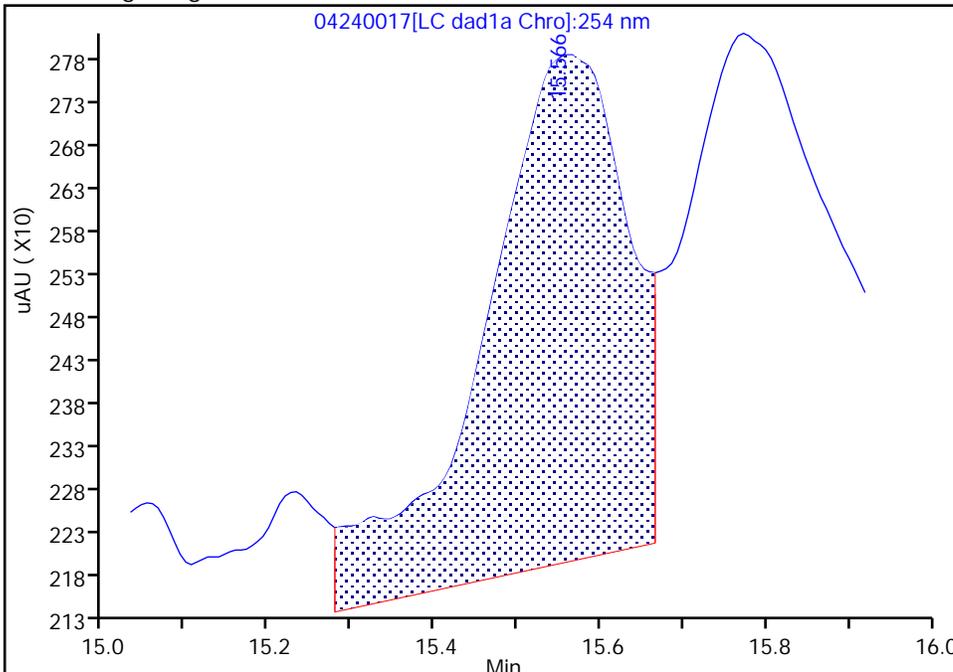
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

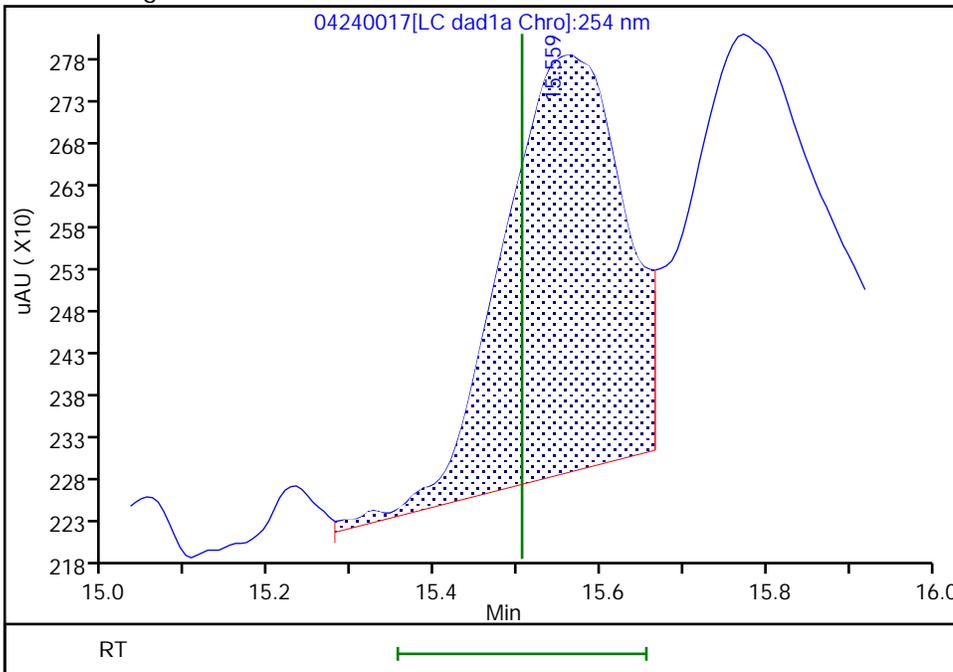
Processing Integration Results

RT: 15.57
Area: 7194
Amount: 0.026616
Amount Units: ug/ml



Manual Integration Results

RT: 15.56
Area: 5024
Amount: 0.020540
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

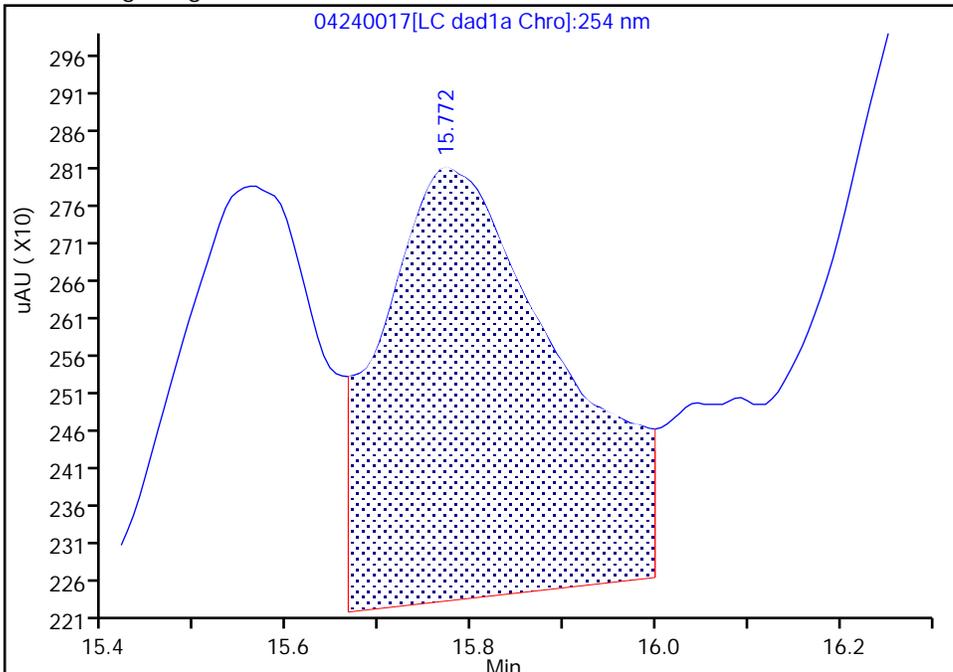
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

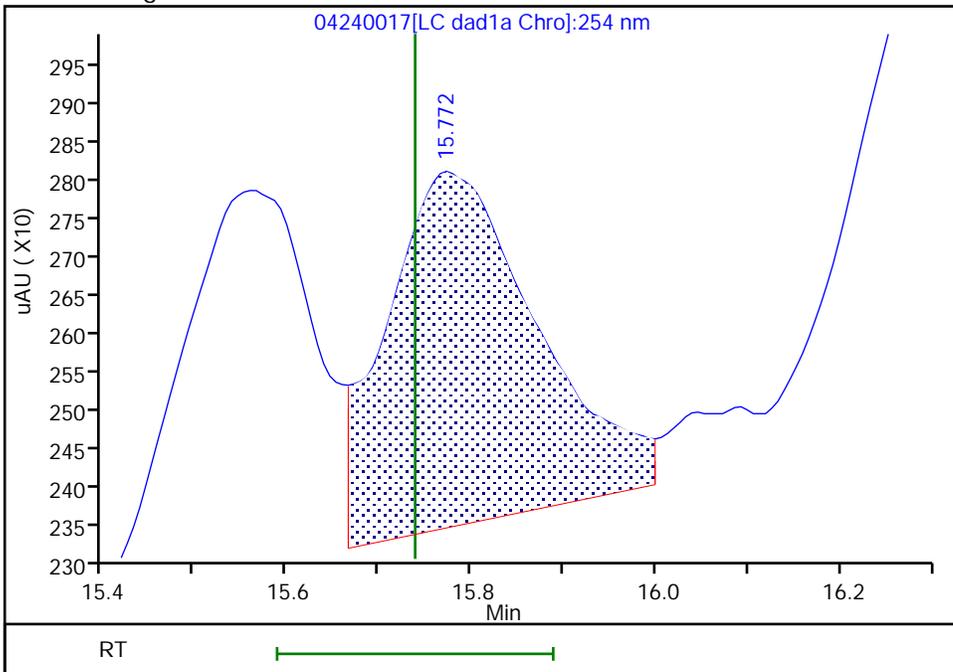
RT: 15.77
Area: 7658
Amount: 0.027712
Amount Units: ug/ml

Processing Integration Results



RT: 15.77
Area: 5278
Amount: 0.020027
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

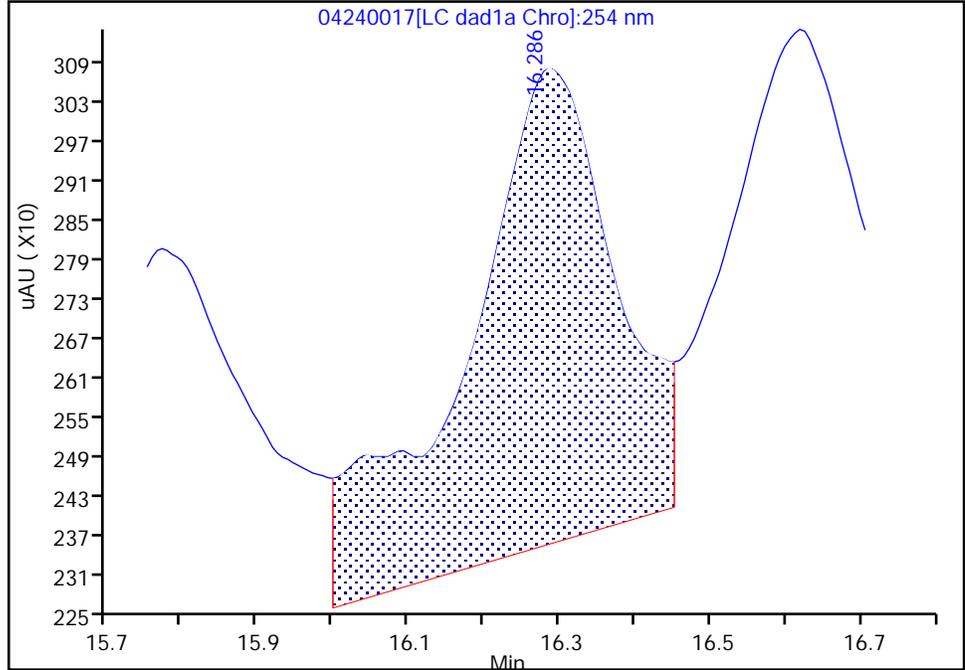
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

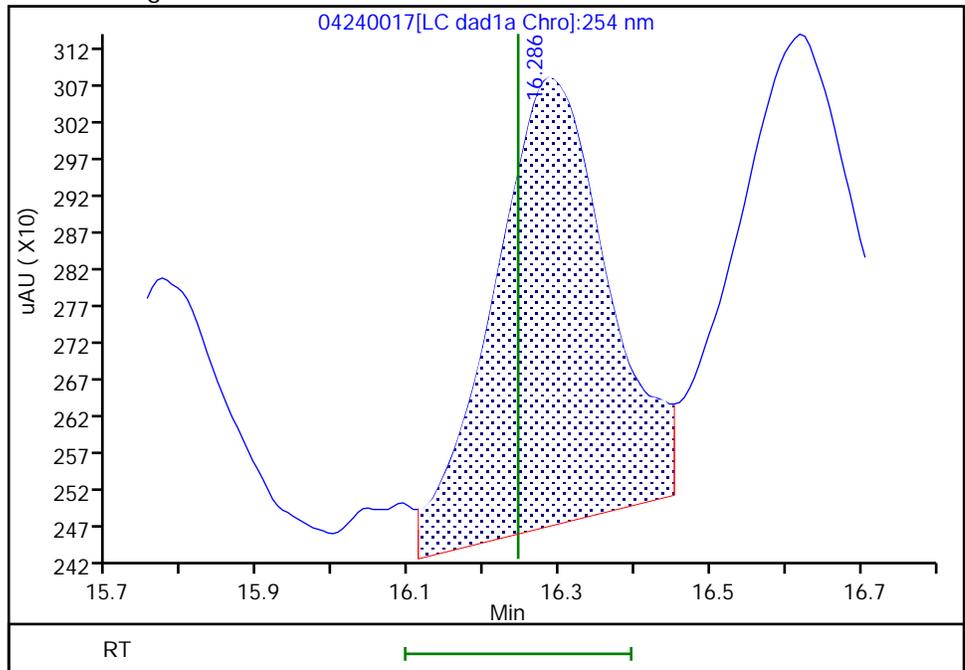
RT: 16.29
Area: 10165
Amount: 0.027414
Amount Units: ug/ml

Processing Integration Results



RT: 16.29
Area: 6474
Amount: 0.021266
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

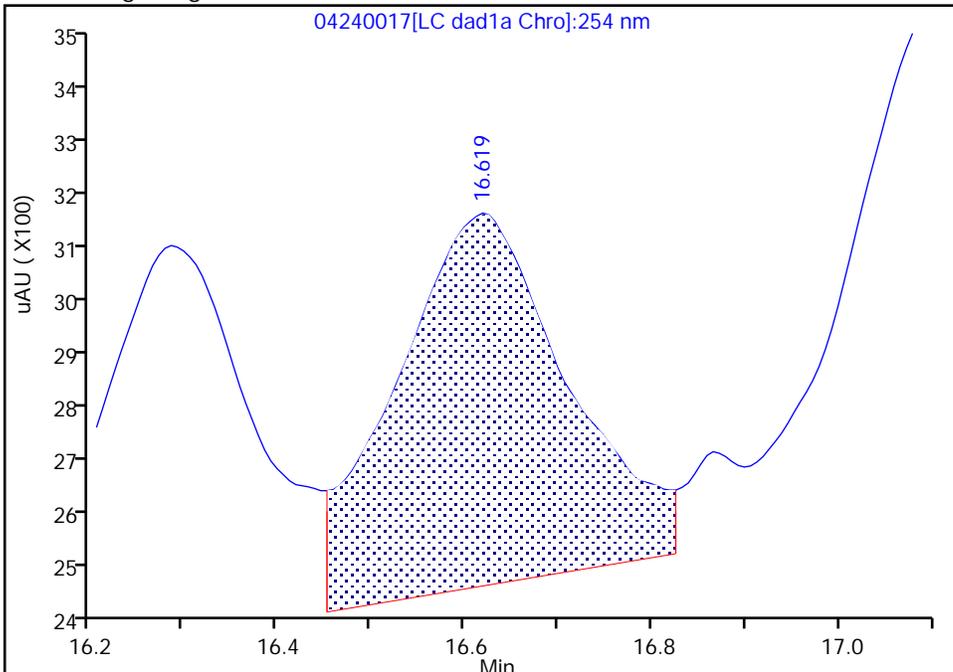
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

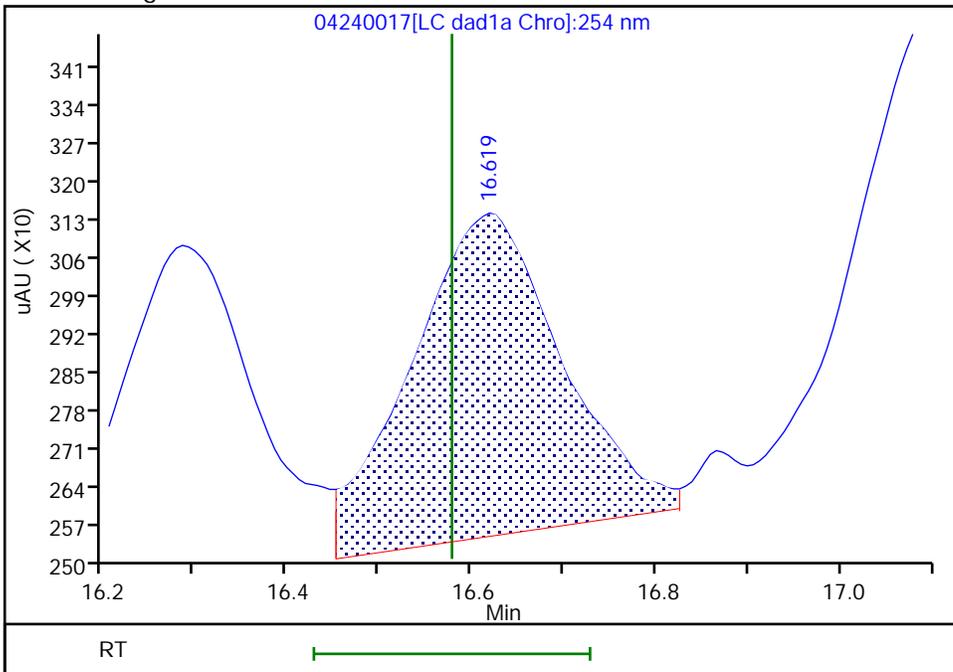
RT: 16.62
Area: 8679
Amount: 0.023268
Amount Units: ug/ml

Processing Integration Results



RT: 16.62
Area: 6685
Amount: 0.020741
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

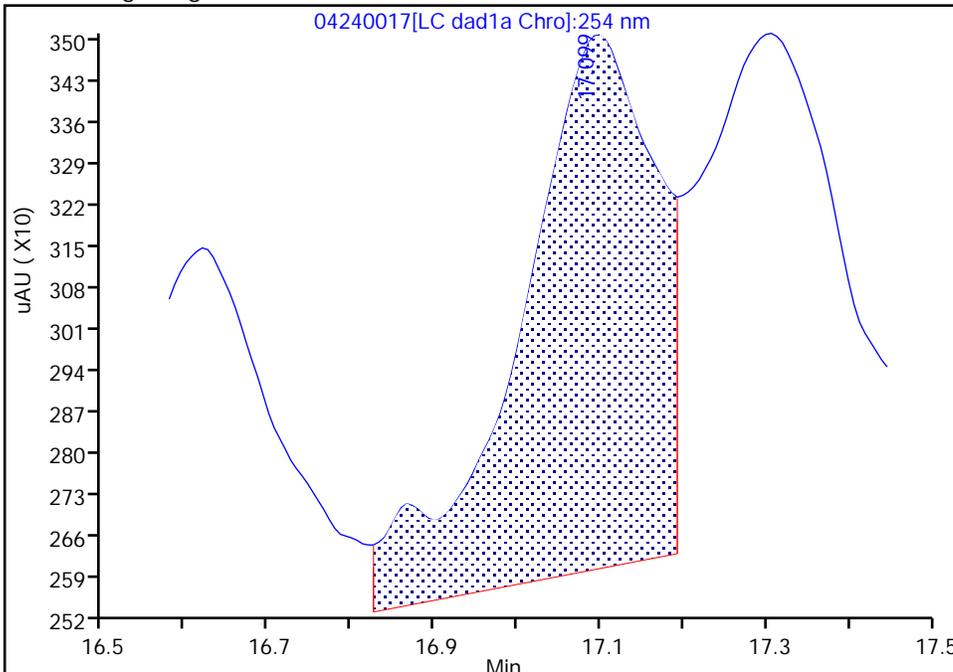
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

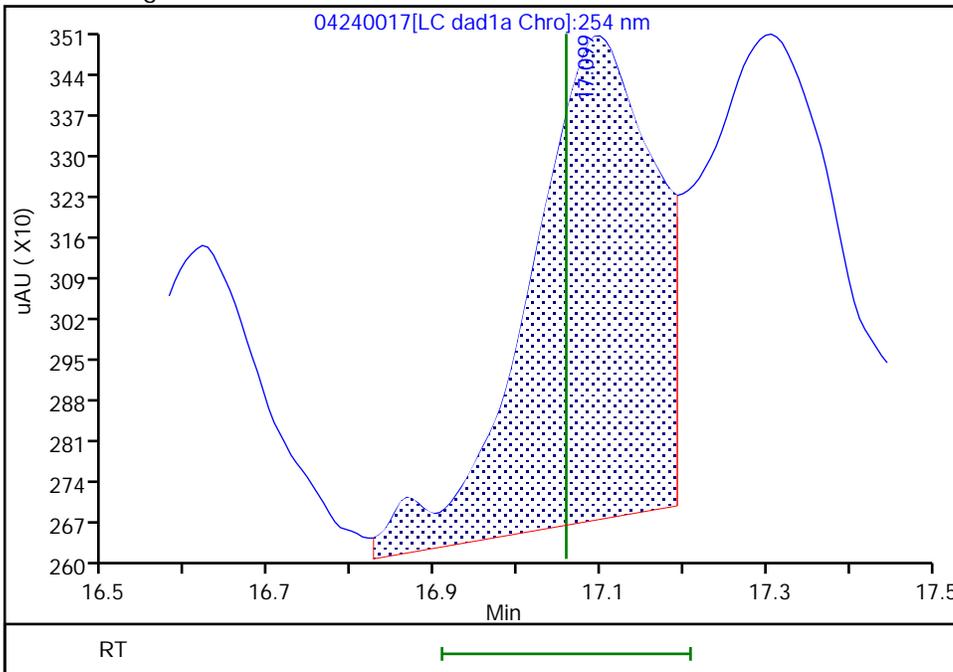
RT: 17.10
Area: 10405
Amount: 0.019938
Amount Units: ug/ml

Processing Integration Results



RT: 17.10
Area: 8733
Amount: 0.021533
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

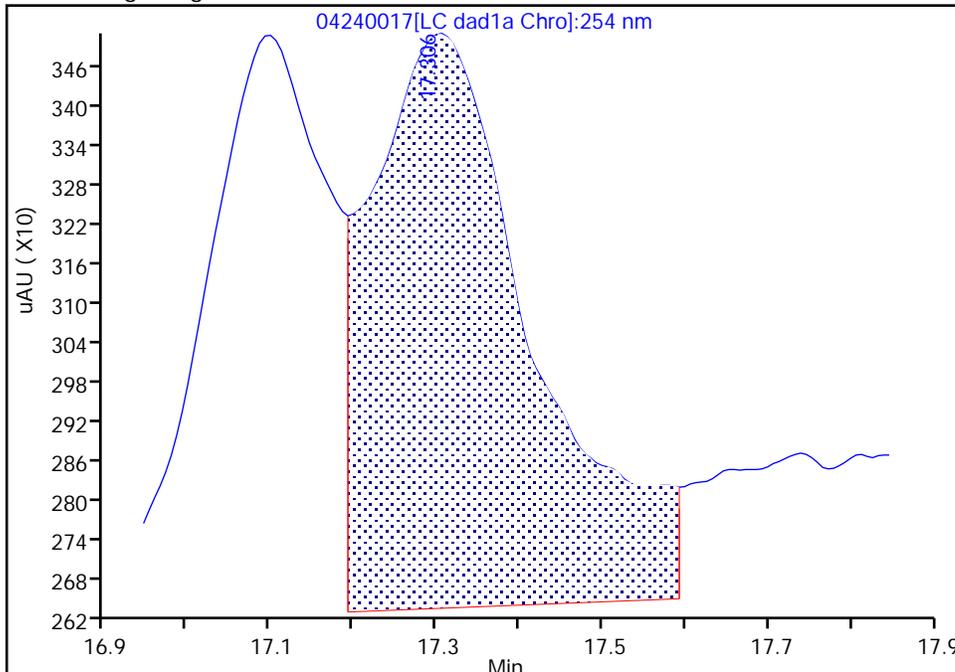
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

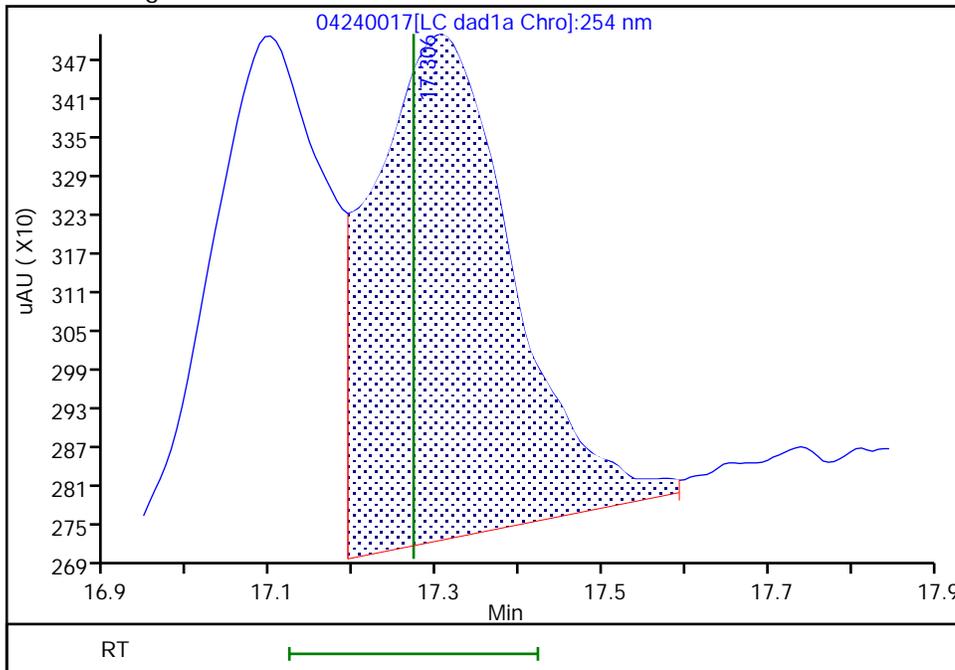
RT: 17.31
Area: 11807
Amount: 0.023018
Amount Units: ug/ml

Processing Integration Results



RT: 17.31
Area: 9167
Amount: 0.021648
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

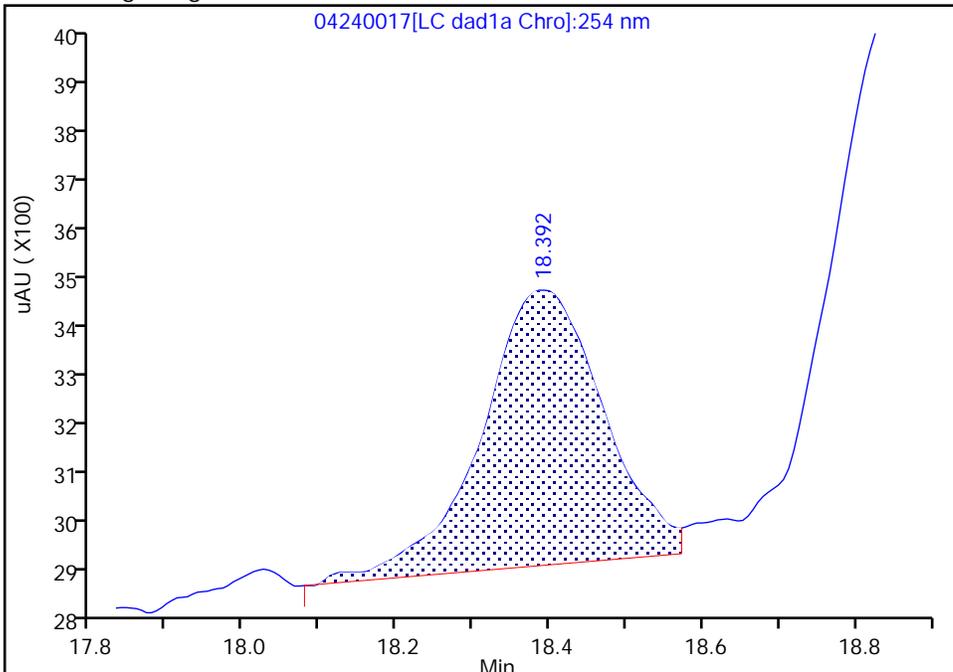
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

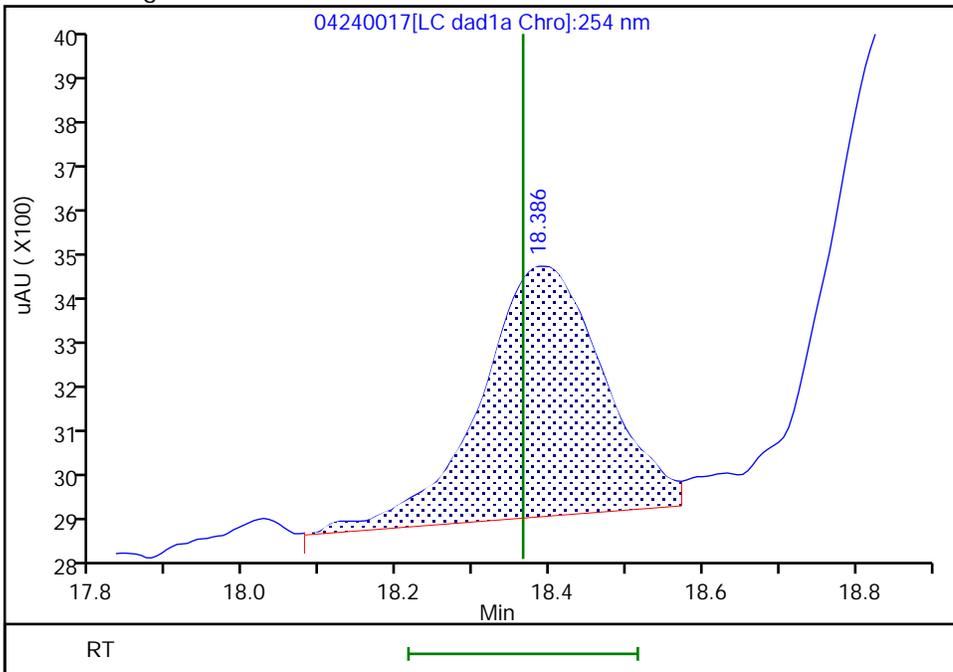
RT: 18.39
Area: 5995
Amount: 0.016870
Amount Units: ug/ml

Processing Integration Results



RT: 18.39
Area: 6113
Amount: 0.021992
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

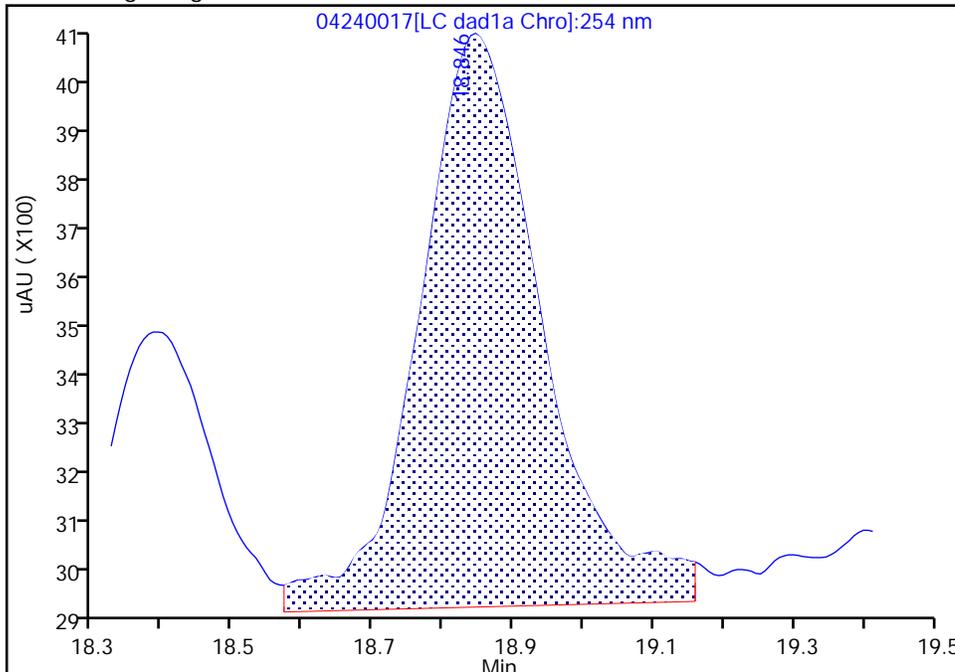
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

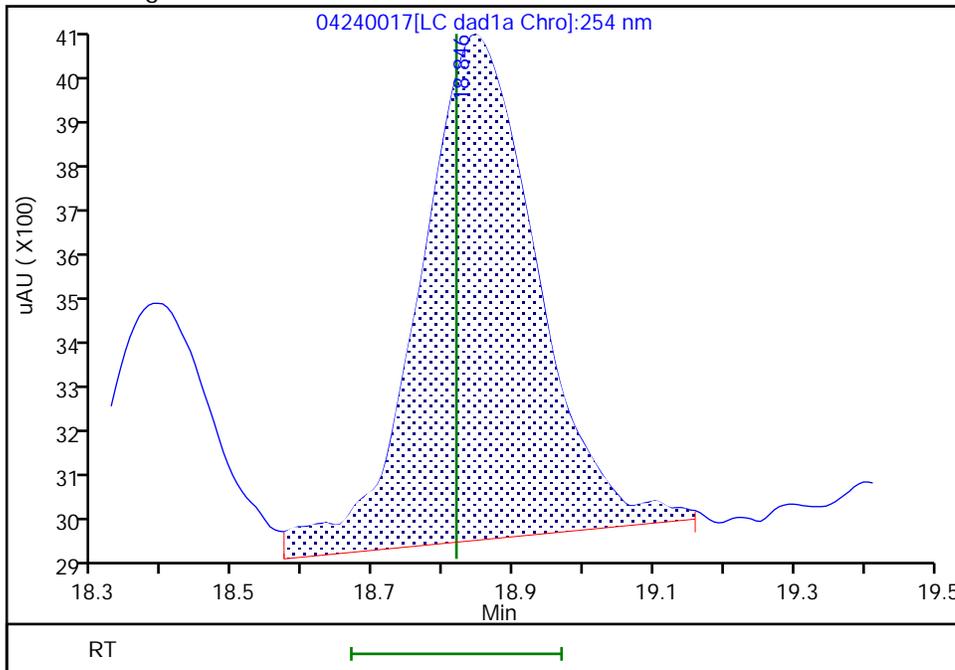
RT: 18.85
Area: 12885
Amount: 0.021829
Amount Units: ug/ml

Processing Integration Results



RT: 18.85
Area: 12005
Amount: 0.021648
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

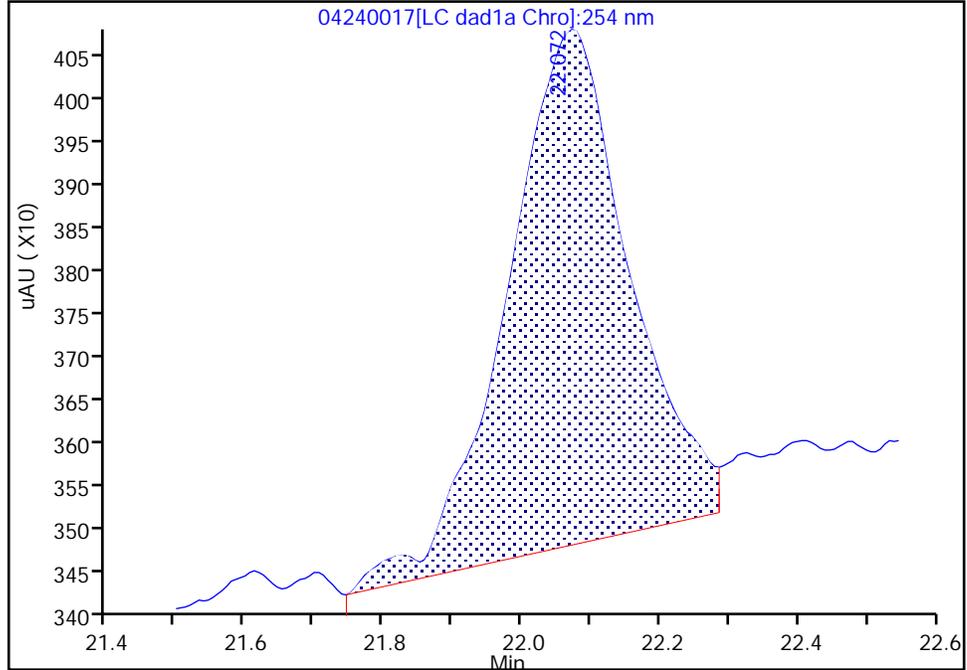
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

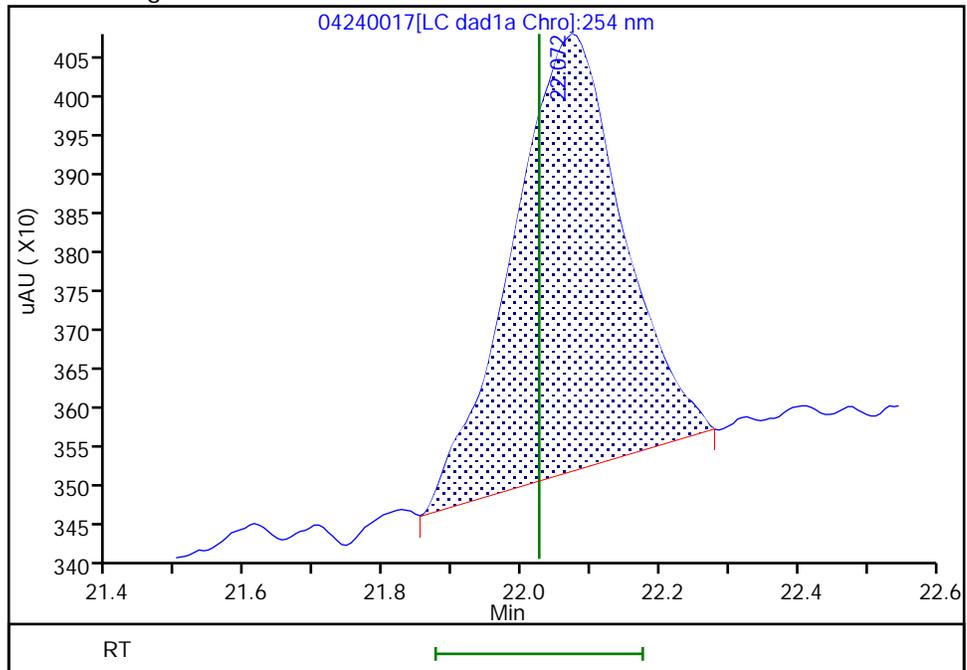
Processing Integration Results

RT: 22.07
Area: 7352
Amount: 0.022454
Amount Units: ug/ml



Manual Integration Results

RT: 22.07
Area: 6268
Amount: 0.018655
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:47 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins Denver

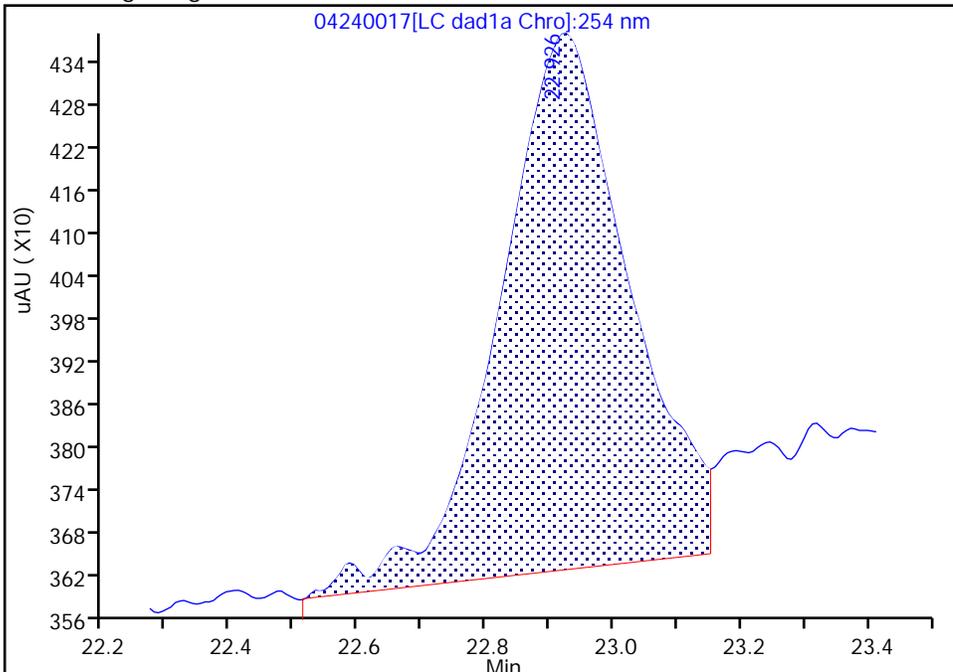
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

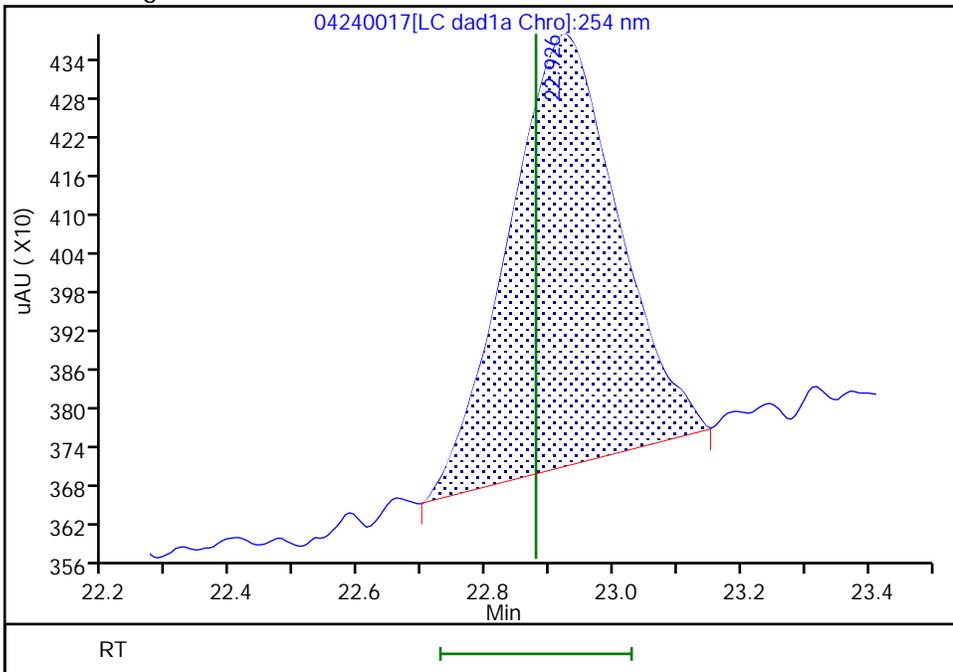
Processing Integration Results

RT: 22.93
Area: 10572
Amount: 0.023639
Amount Units: ug/ml



Manual Integration Results

RT: 22.93
Area: 7969
Amount: 0.019934
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:27:02 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240018.D
 Lims ID: IC INT 1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 25-Apr-2024 02:15:46 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_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:30:19 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.713	6.705	0.008	1677	0.0100	0.009634	M
5 2,4,6-Trinitrophenol	1	8.700	8.612	0.088	1549	0.0100	0.0102	
8 RDX	1	8.953	8.938	0.015	2562	0.0100	0.009837	
9 Nitrobenzene	1	11.426	11.425	0.001	3818	0.0100	0.0100	M
\$ 10 1,2-Dinitrobenzene	1	12.360	12.345	0.015	2237	0.0100	0.008647	M
11 3,5-Dinitroaniline	1	14.200	14.185	0.015	5245	0.0100	0.0100	M
12 1,3-Dinitrobenzene	1	14.493	14.478	0.015	6332	0.0100	0.0107	M
13 Nitroglycerin	2	14.940	14.918	0.022	10431	0.1000	0.0873	M
14 o-Nitrotoluene	1	15.533	15.505	0.028	3289	0.0100	0.0134	M
15 p-Nitrotoluene	1	15.746	15.738	0.008	2223	0.0100	0.005995	M
16 4-Amino-2,6-dinitrotoluene	1	16.260	16.245	0.015	3366	0.0100	0.009734	M
17 m-Nitrotoluene	1	16.586	16.578	0.008	3672	0.0100	0.009808	M
18 2-Amino-4,6-dinitrotoluene	1	17.086	17.058	0.028	5022	0.0100	0.0124	M
19 1,3,5-Trinitrobenzene	1	17.286	17.272	0.014	5210	0.0100	0.0123	M
20 2,6-Dinitrotoluene	1	18.380	18.365	0.015	3016	0.0100	0.0109	M
21 2,4-Dinitrotoluene	1	18.833	18.818	0.015	5764	0.0100	0.0104	M
22 Tetryl	1	22.027	22.025	0.002	3675	0.0100	0.0103	
23 2,4,6-Trinitrotoluene	1	22.900	22.878	0.022	3703	0.0100	0.009263	M
24 PETN	2	24.033	24.032	0.001	10531	0.1000	0.1003	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 1.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d

Injection Date: 25-Apr-2024 02:15:46

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 1

Worklist Smp#: 18

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

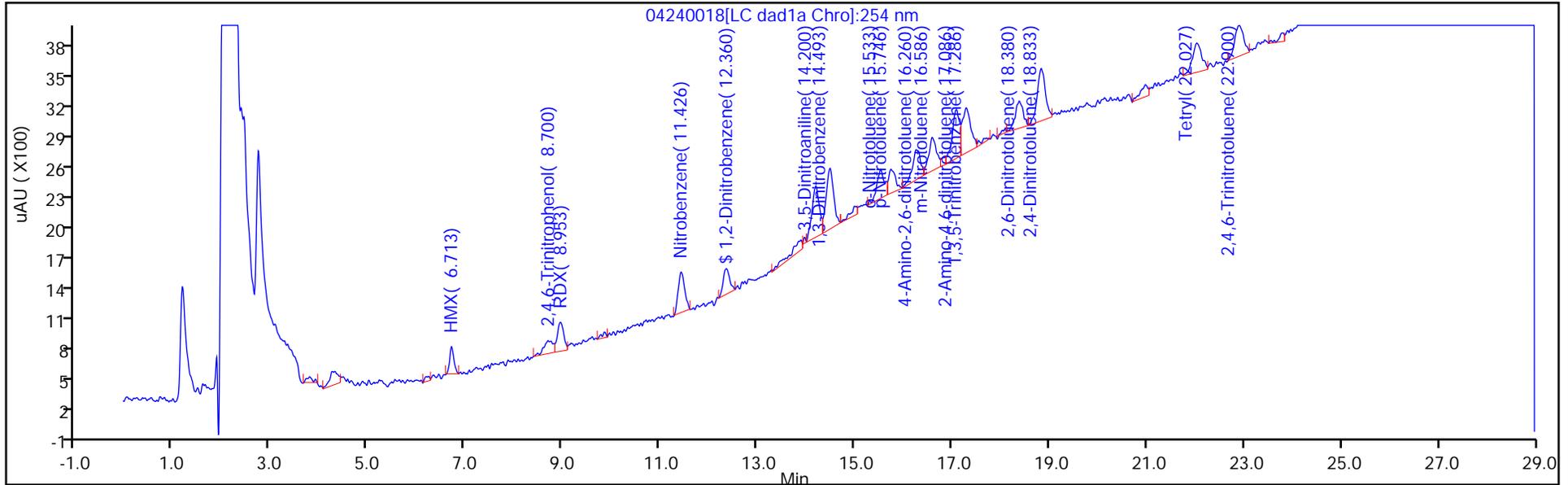
ALS Bottle#: 18

Method: G2_8330_Luna

Limit Group: GCSV - 8330

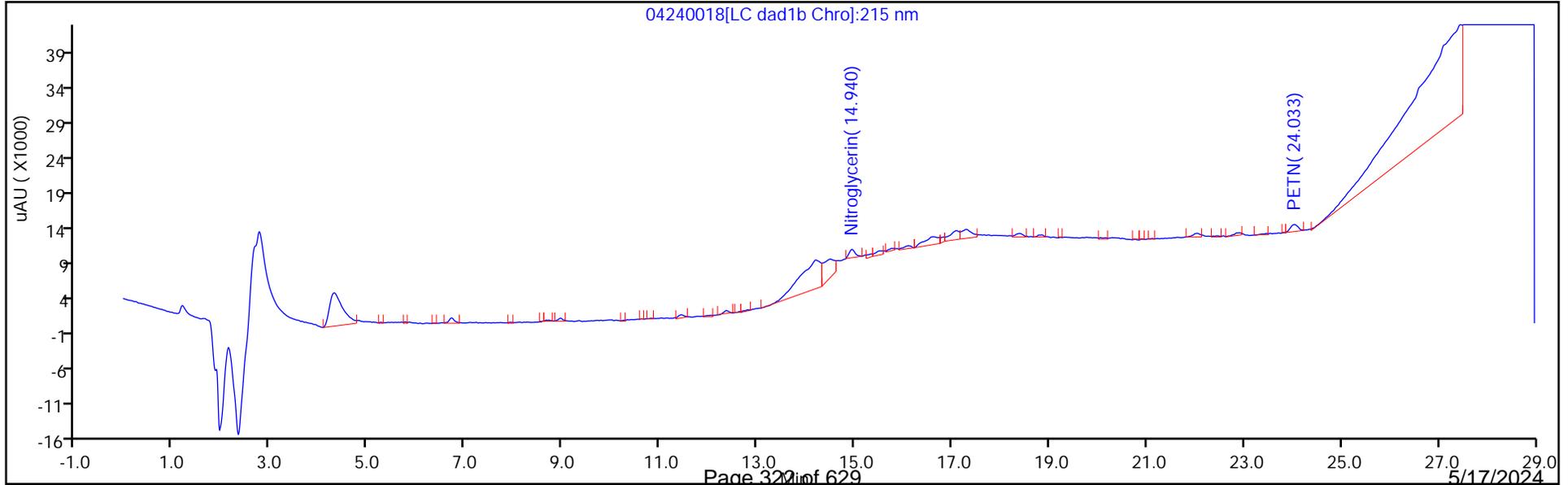
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

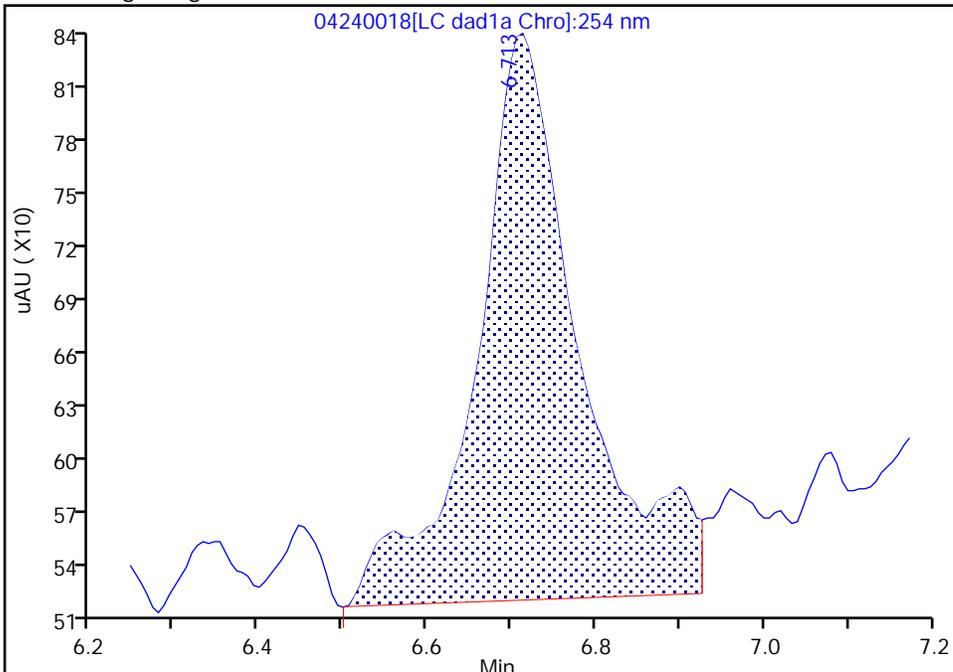
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

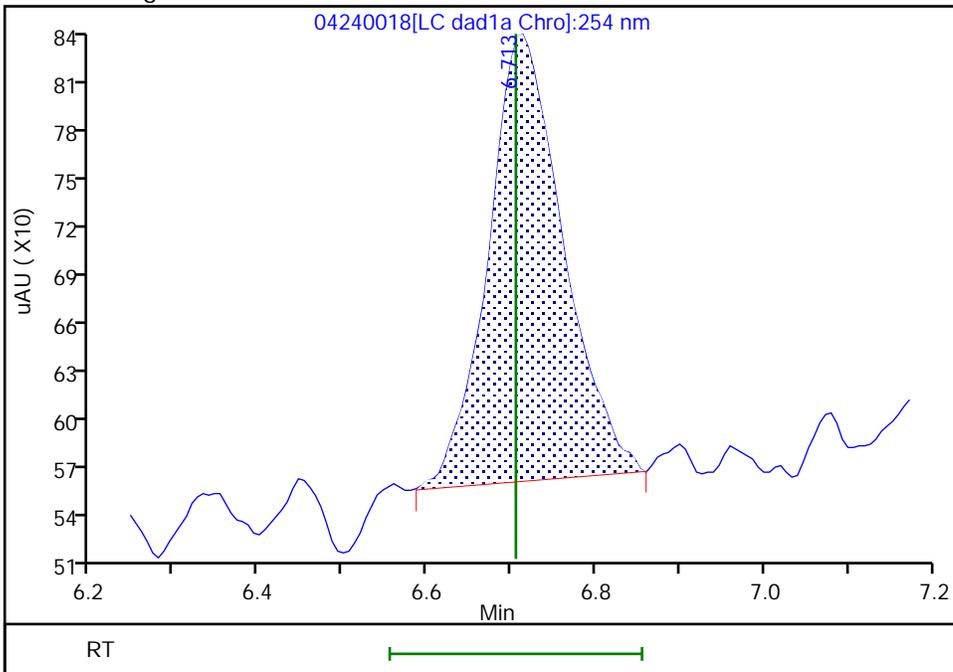
RT: 6.71
Area: 2684
Amount: 0.010199
Amount Units: ug/ml

Processing Integration Results



RT: 6.71
Area: 1677
Amount: 0.009634
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:31:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

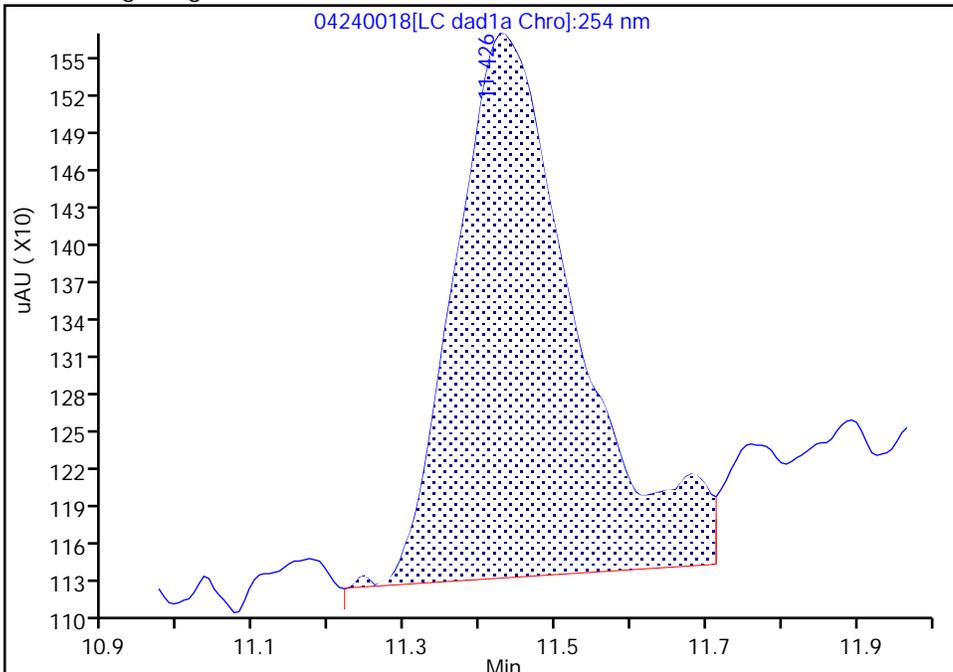
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
 Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: IC INT 1
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

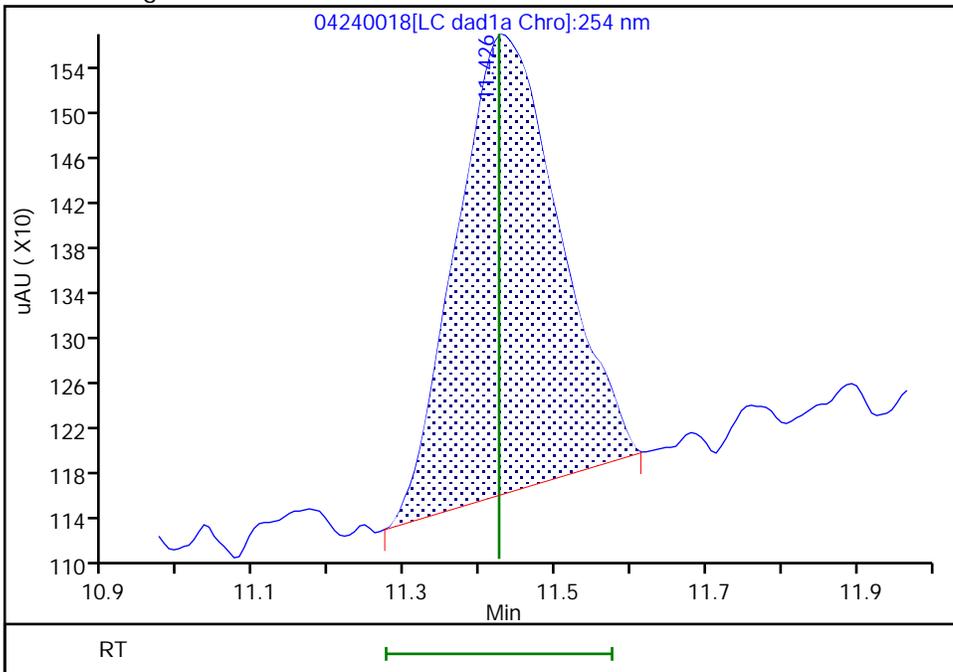
RT: 11.43
 Area: 4838
 Amount: 0.012296
 Amount Units: ug/ml

Processing Integration Results



RT: 11.43
 Area: 3818
 Amount: 0.009992
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:27:50 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

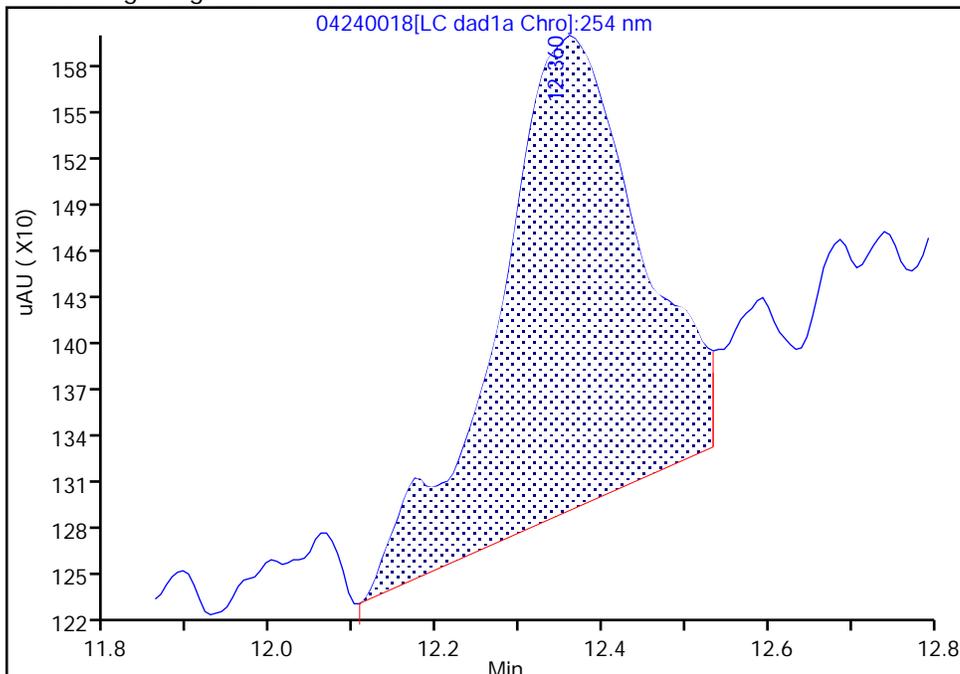
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

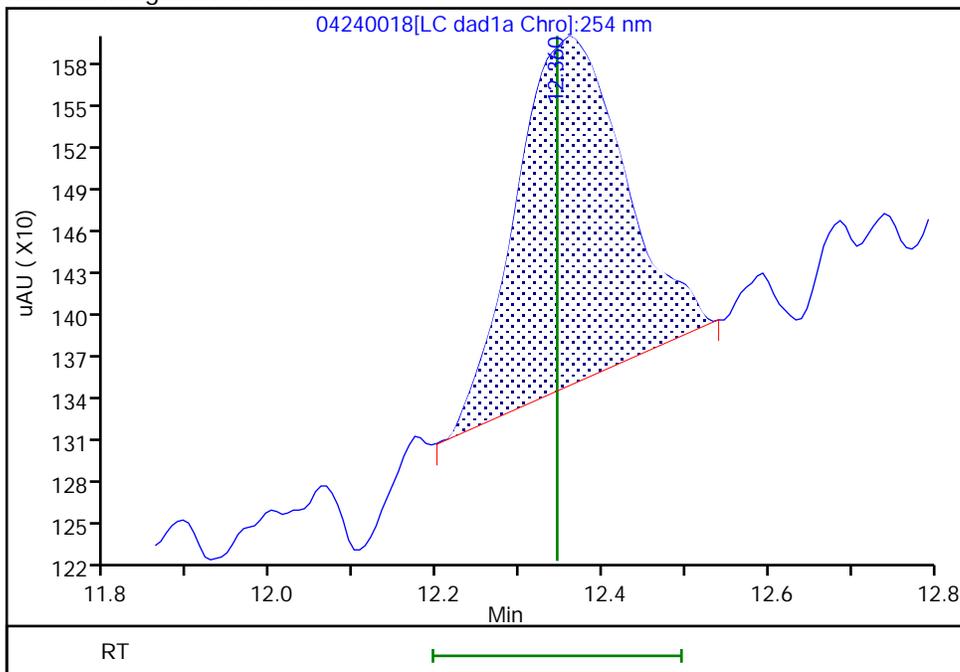
RT: 12.36
Area: 3595
Amount: 0.013131
Amount Units: ug/ml

Processing Integration Results



RT: 12.36
Area: 2237
Amount: 0.008647
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:28:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

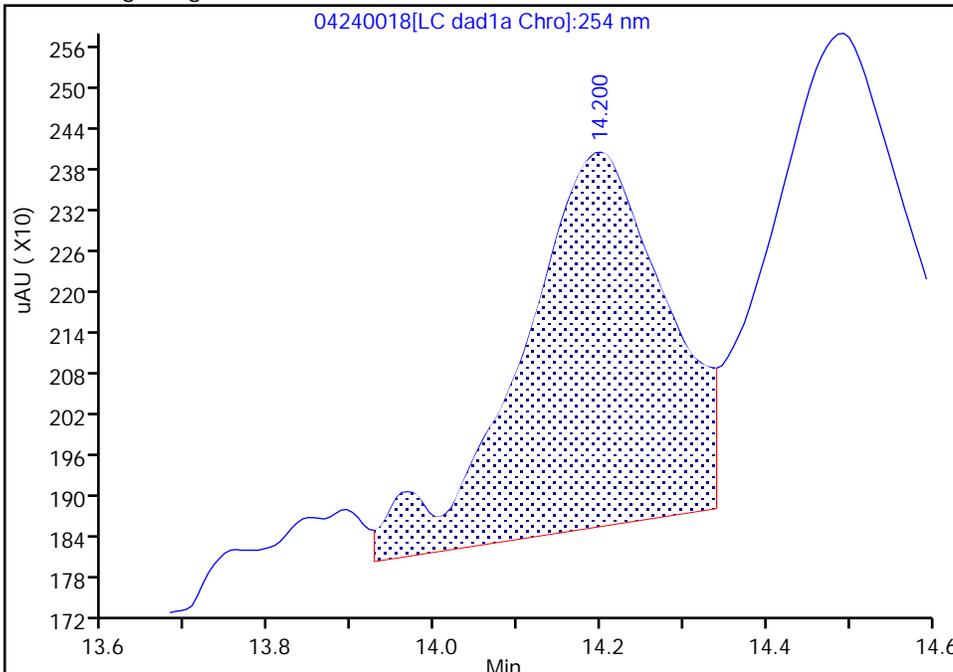
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

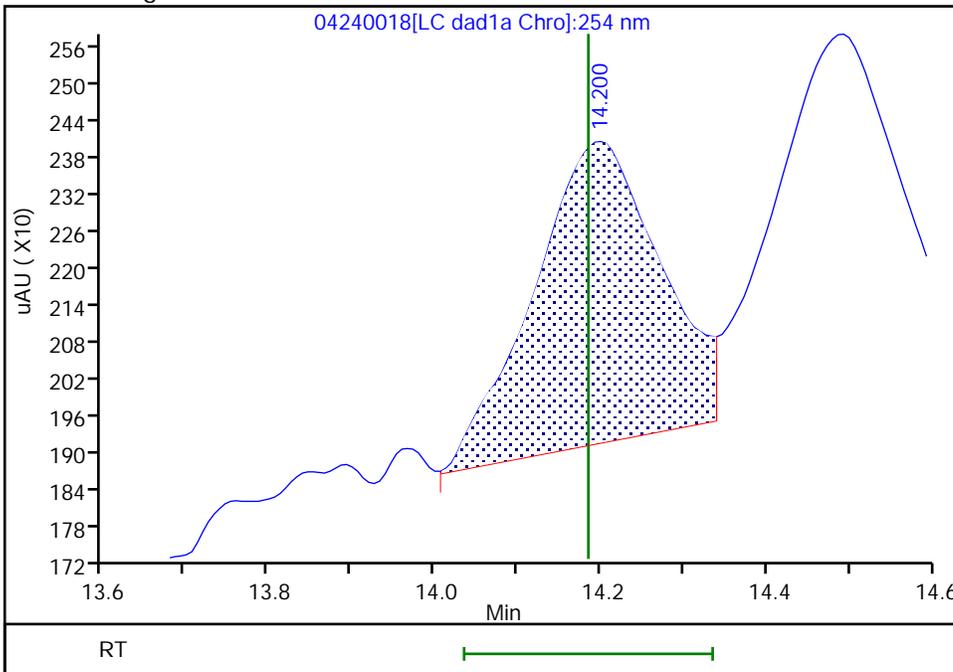
RT: 14.20
Area: 6757
Amount: 0.010763
Amount Units: ug/ml

Processing Integration Results



RT: 14.20
Area: 5245
Amount: 0.010044
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

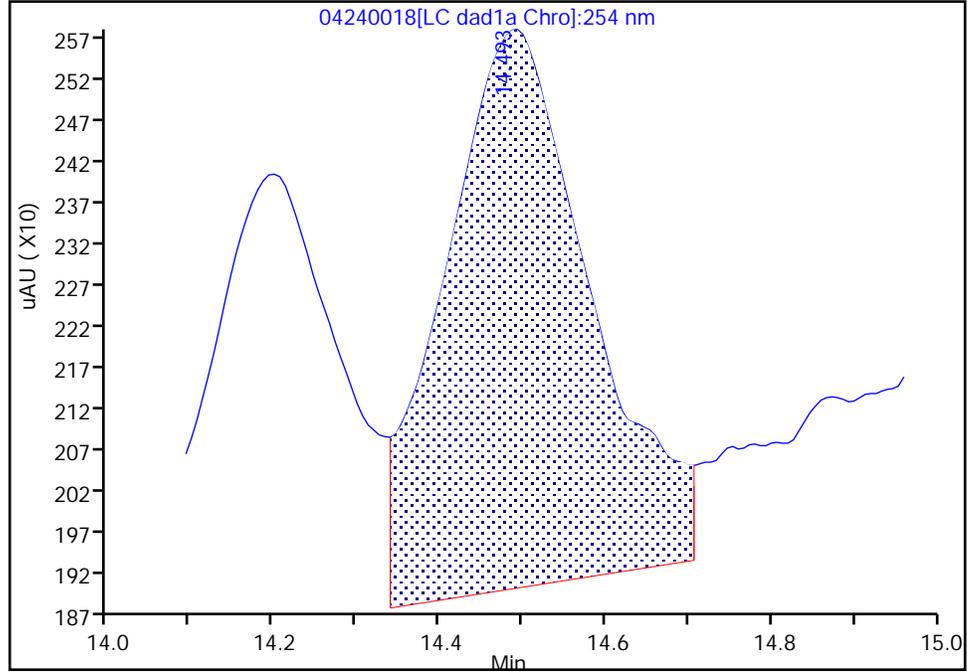
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

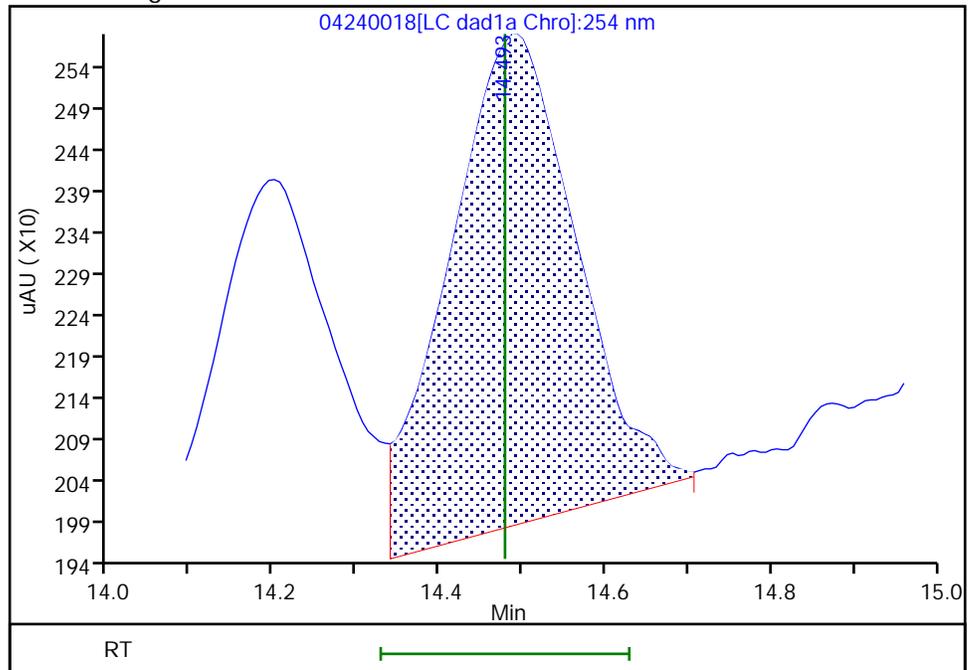
RT: 14.49
Area: 8301
Amount: 0.013579
Amount Units: ug/ml

Processing Integration Results



RT: 14.49
Area: 6332
Amount: 0.010743
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:28:58 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

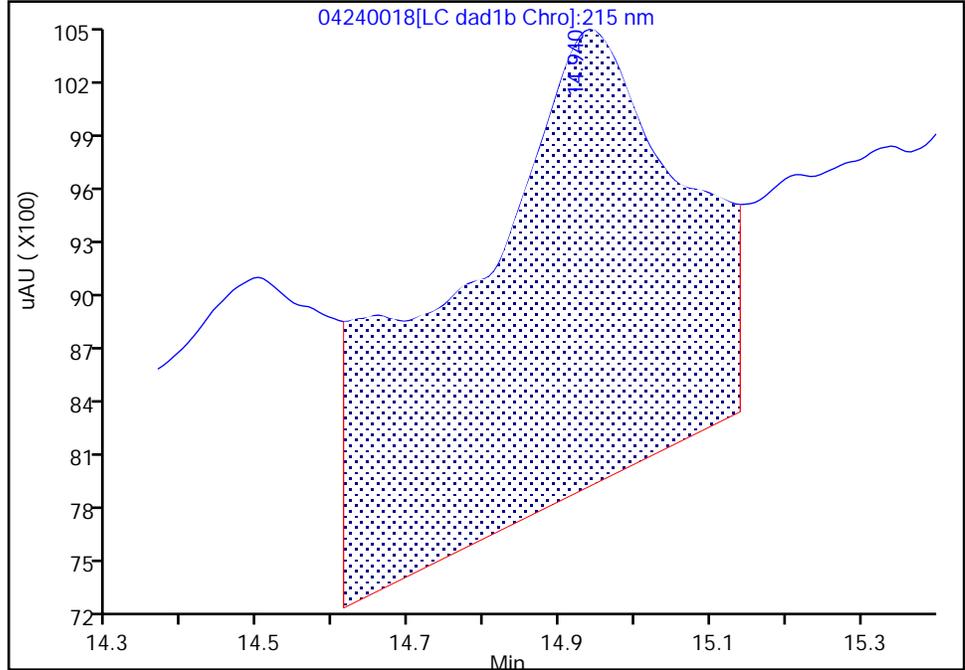
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

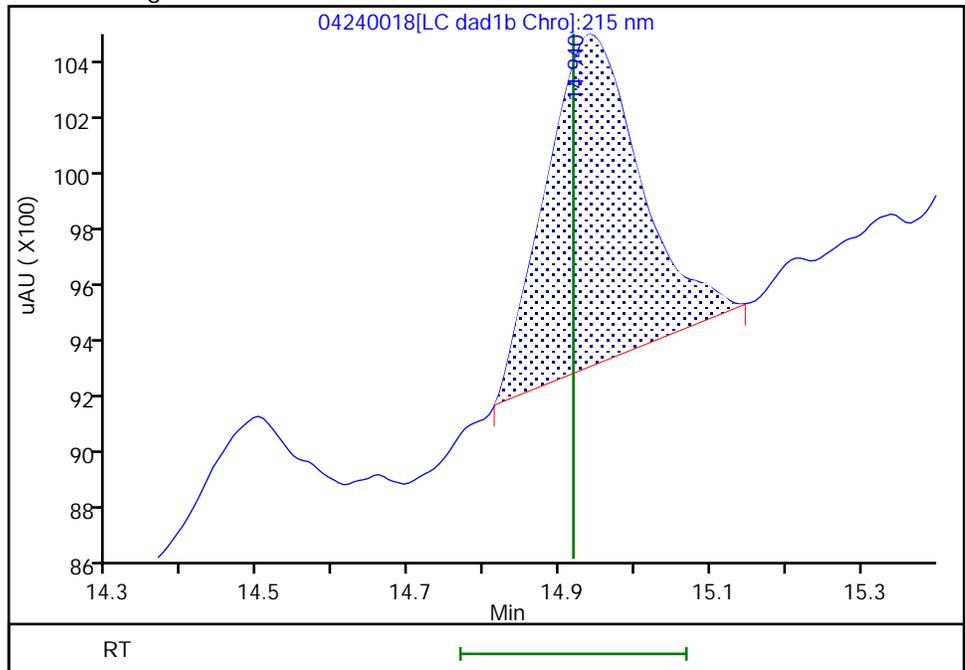
RT: 14.94
Area: 53313
Amount: 0.315461
Amount Units: ug/ml

Processing Integration Results



RT: 14.94
Area: 10431
Amount: 0.087285
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

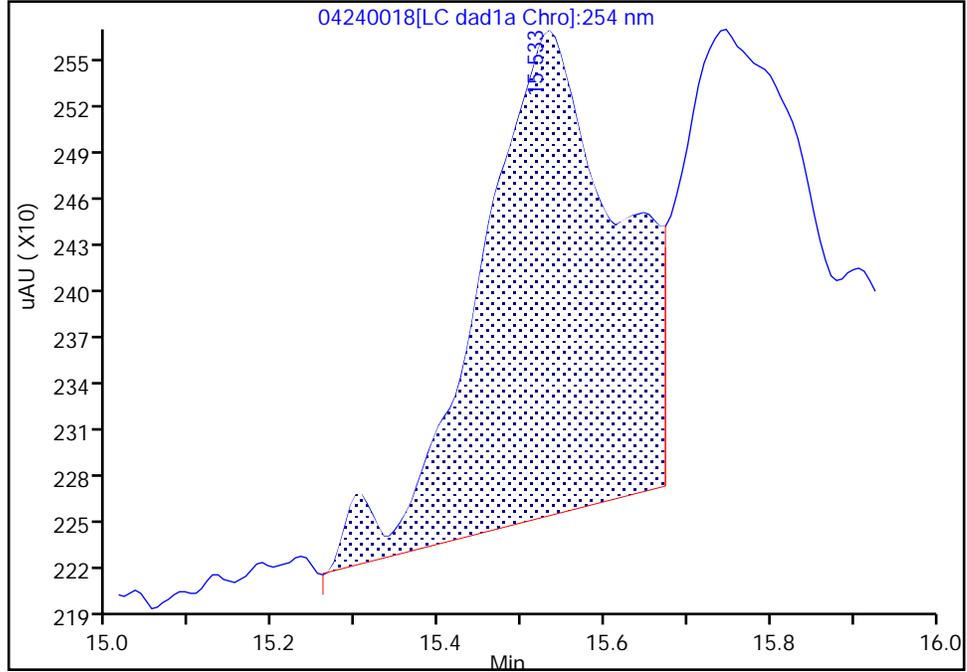
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

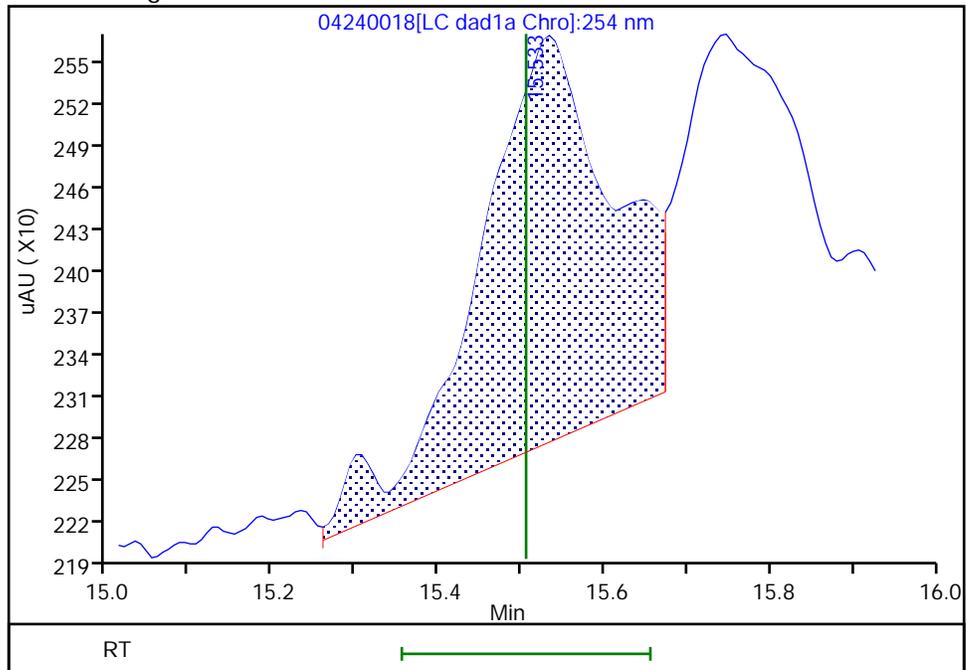
RT: 15.53
Area: 3673
Amount: 0.013997
Amount Units: ug/ml

Processing Integration Results



RT: 15.53
Area: 3289
Amount: 0.013447
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

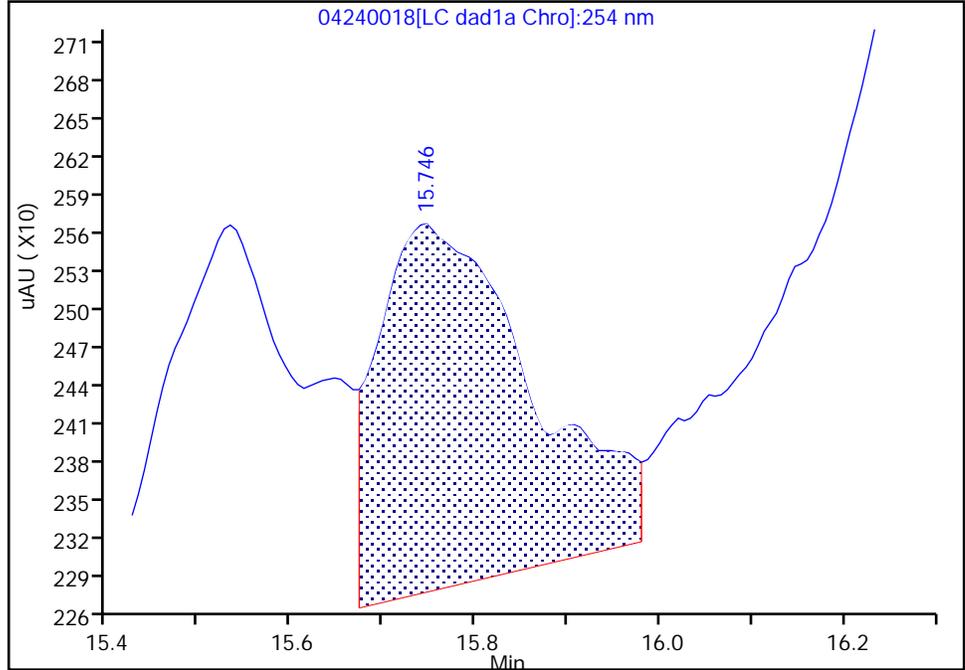
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

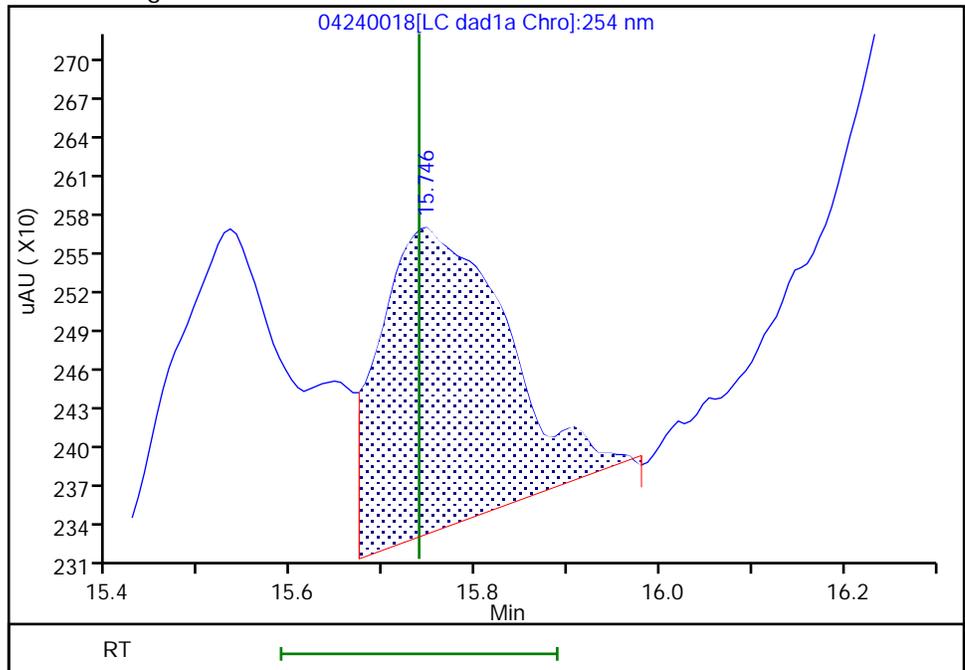
RT: 15.75
Area: 3244
Amount: 0.013429
Amount Units: ug/ml

Processing Integration Results



RT: 15.75
Area: 2223
Amount: 0.005995
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

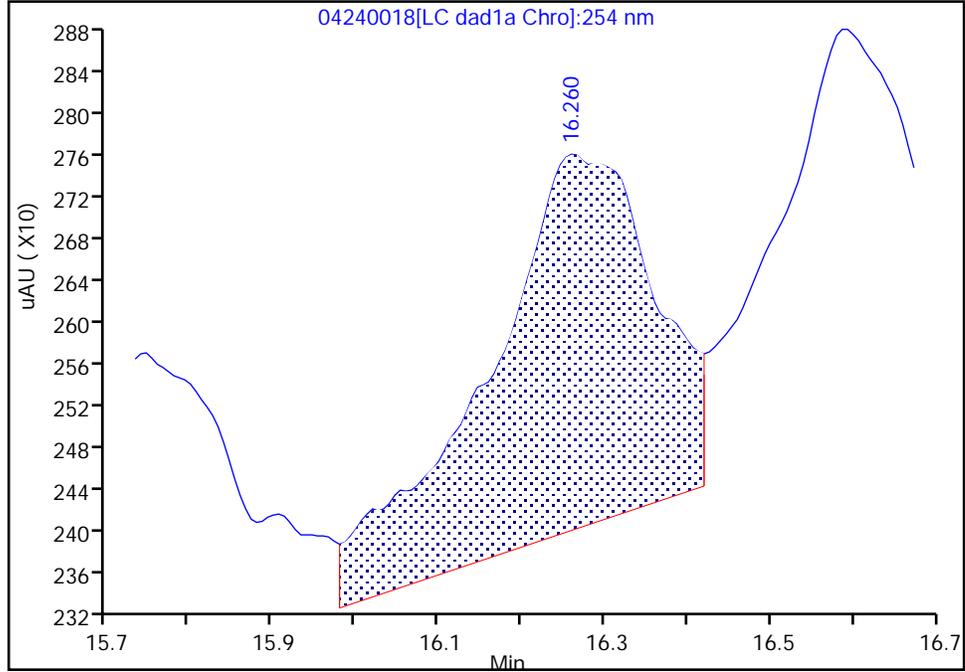
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

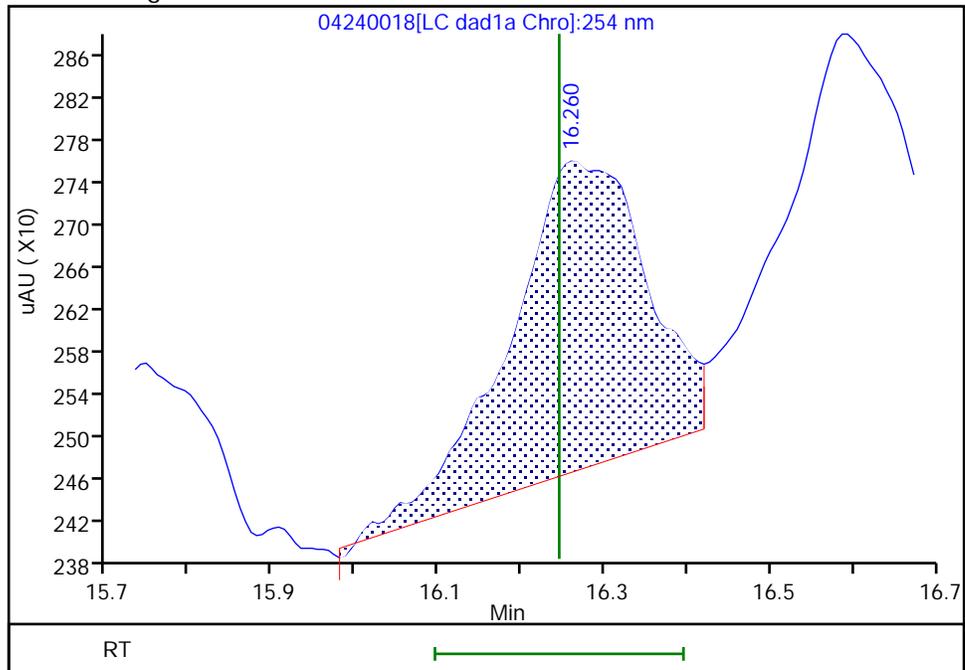
RT: 16.26
Area: 5148
Amount: 0.010335
Amount Units: ug/ml

Processing Integration Results



RT: 16.26
Area: 3366
Amount: 0.009734
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

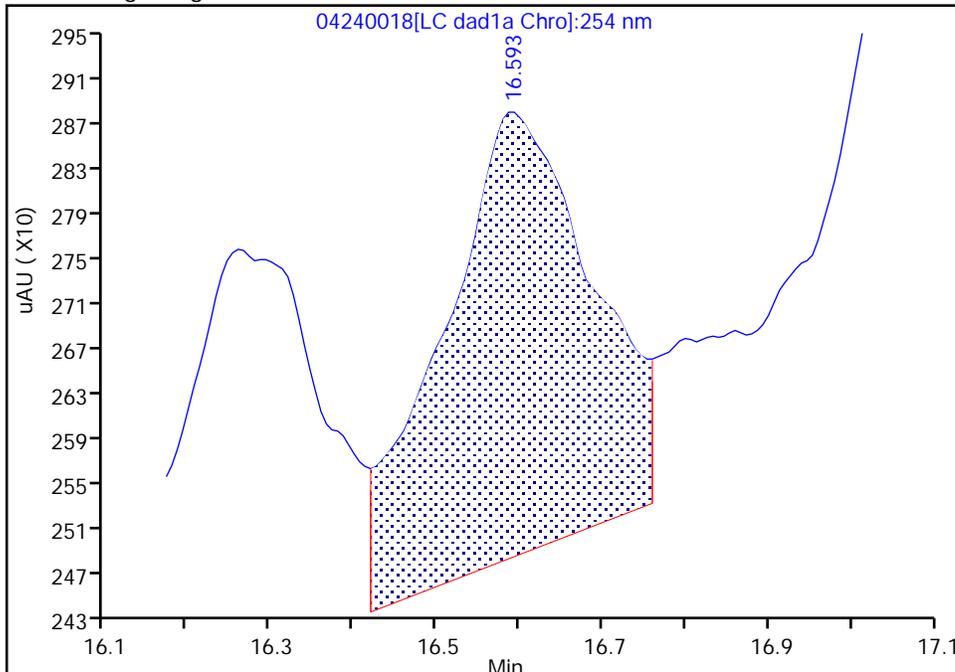
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

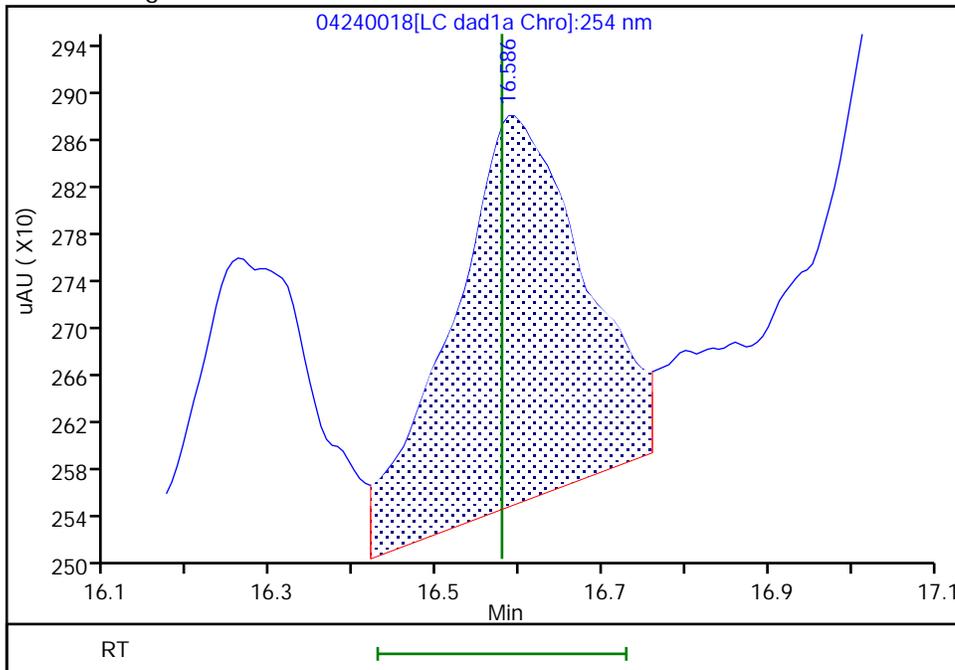
RT: 16.59
Area: 4917
Amount: 0.010564
Amount Units: ug/ml

Processing Integration Results



RT: 16.59
Area: 3672
Amount: 0.009808
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

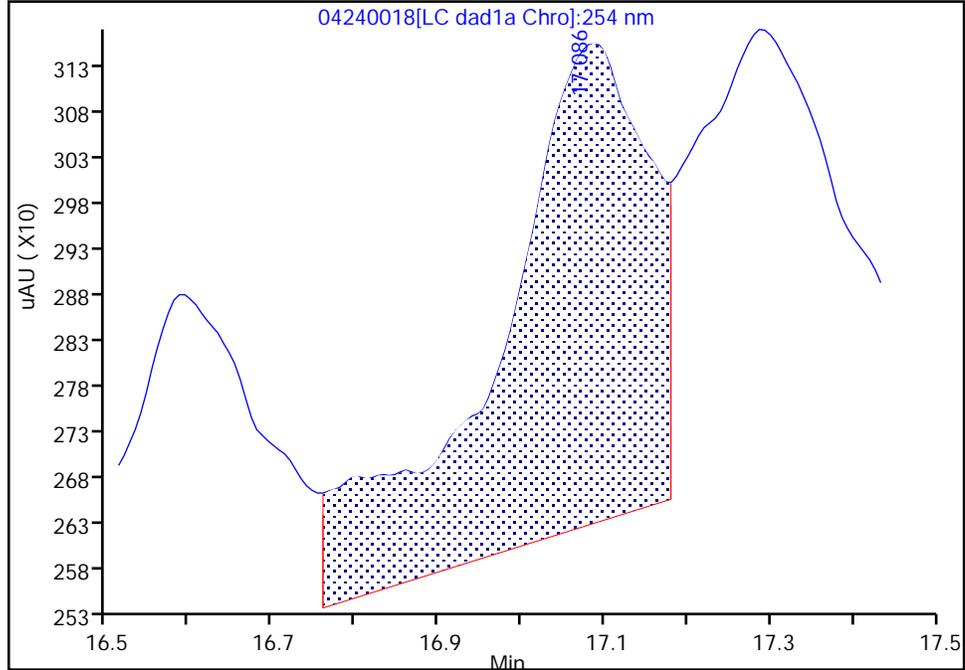
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

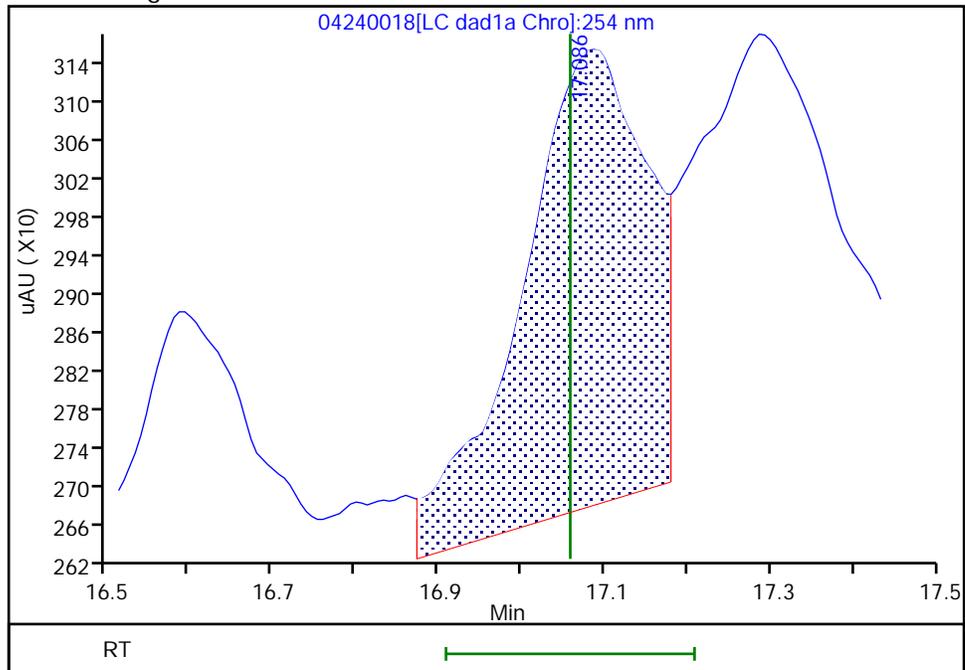
RT: 17.09
Area: 6792
Amount: 0.011001
Amount Units: ug/ml

Processing Integration Results



RT: 17.09
Area: 5022
Amount: 0.012383
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

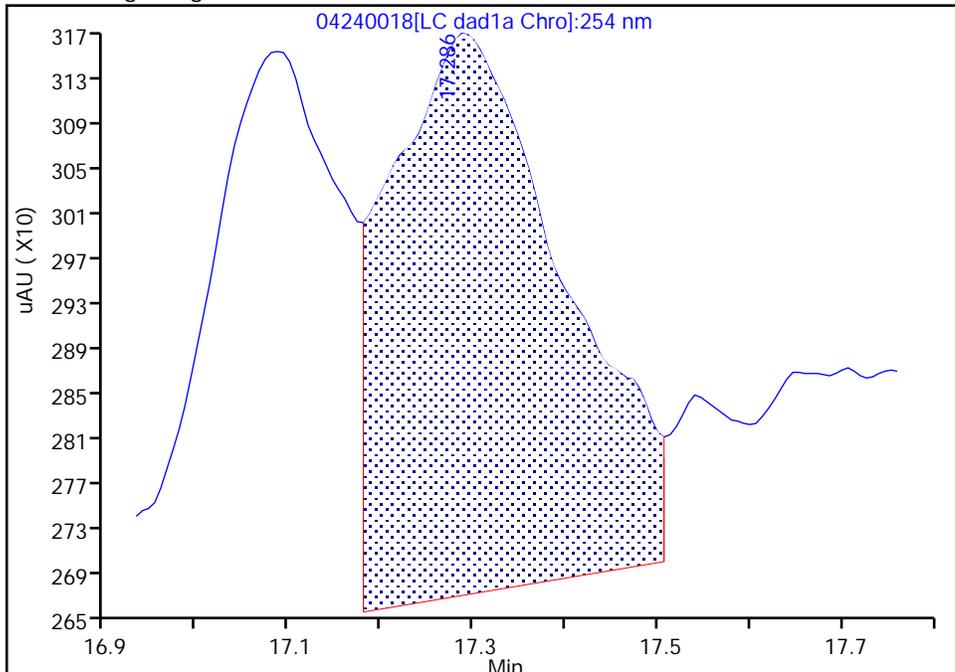
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

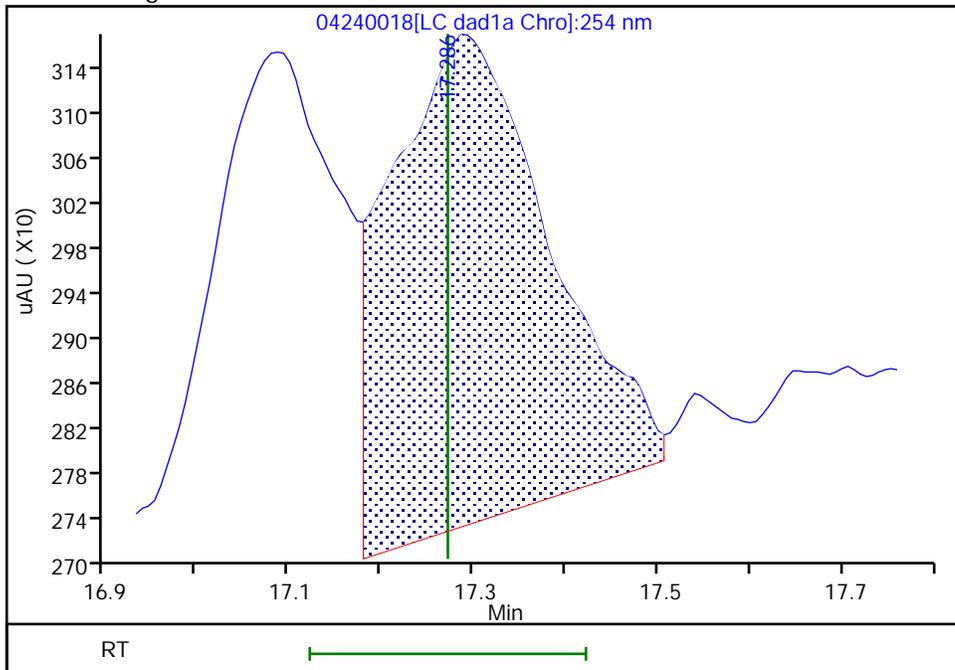
RT: 17.29
Area: 6493
Amount: 0.014850
Amount Units: ug/ml

Processing Integration Results



RT: 17.29
Area: 5210
Amount: 0.012304
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

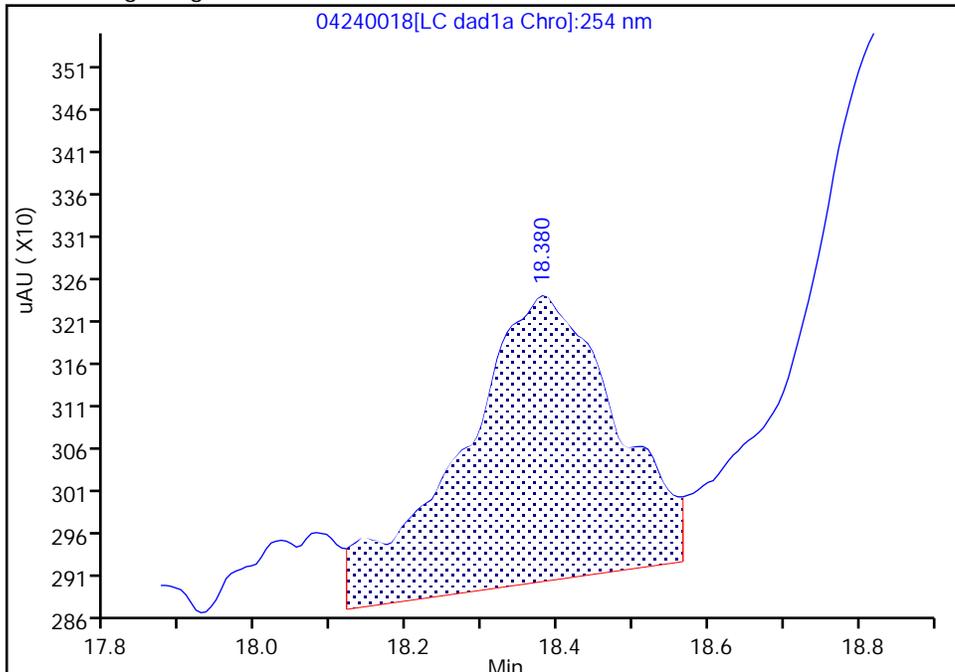
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

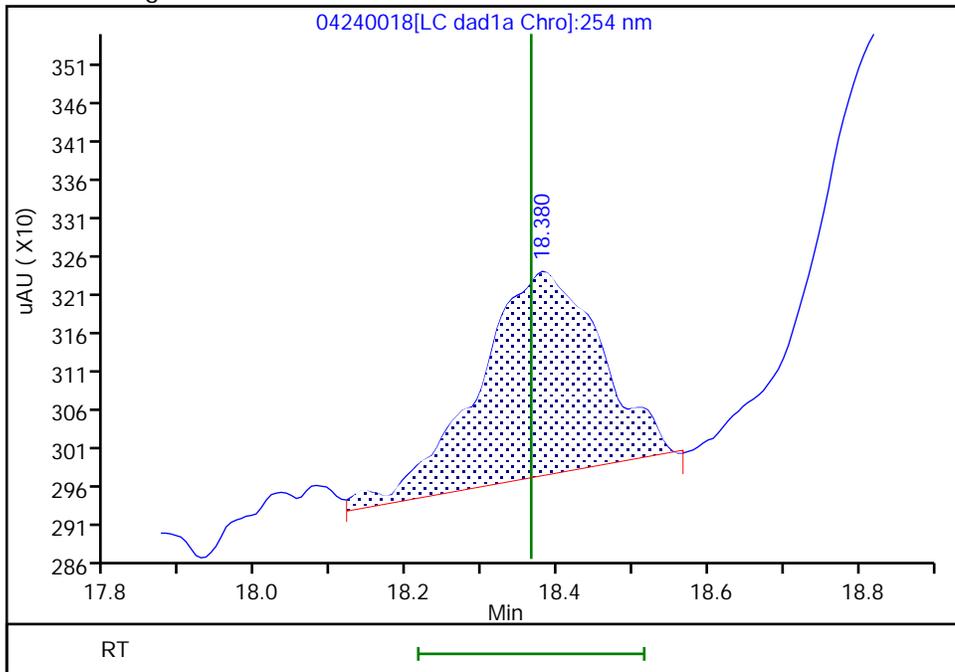
RT: 18.38
Area: 4838
Amount: 0.011069
Amount Units: ug/ml

Processing Integration Results



RT: 18.38
Area: 3016
Amount: 0.010850
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

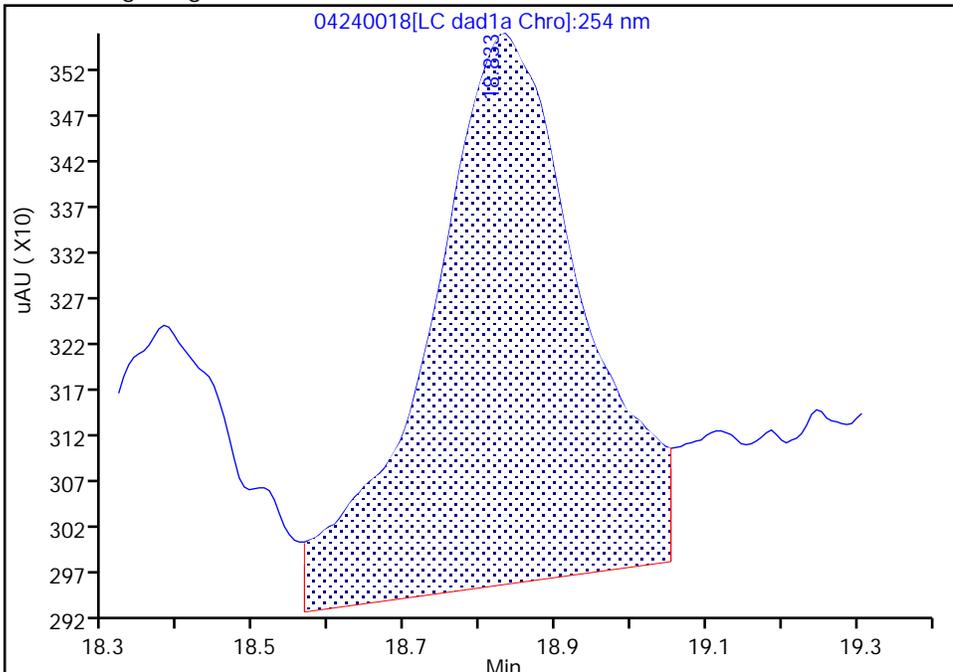
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

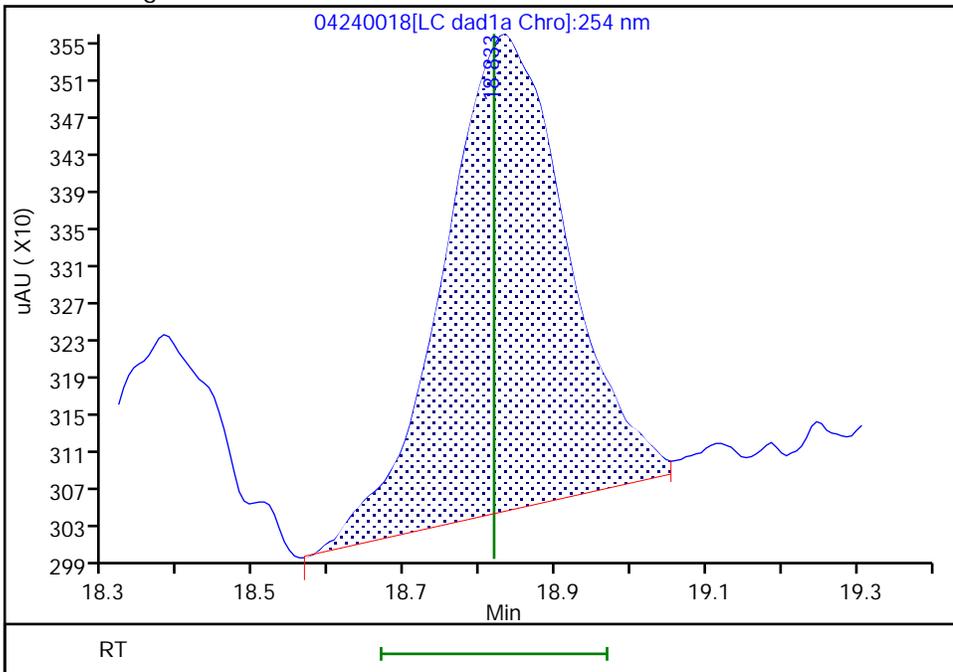
RT: 18.83
Area: 8538
Amount: 0.014585
Amount Units: ug/ml

Processing Integration Results



RT: 18.83
Area: 5764
Amount: 0.010394
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

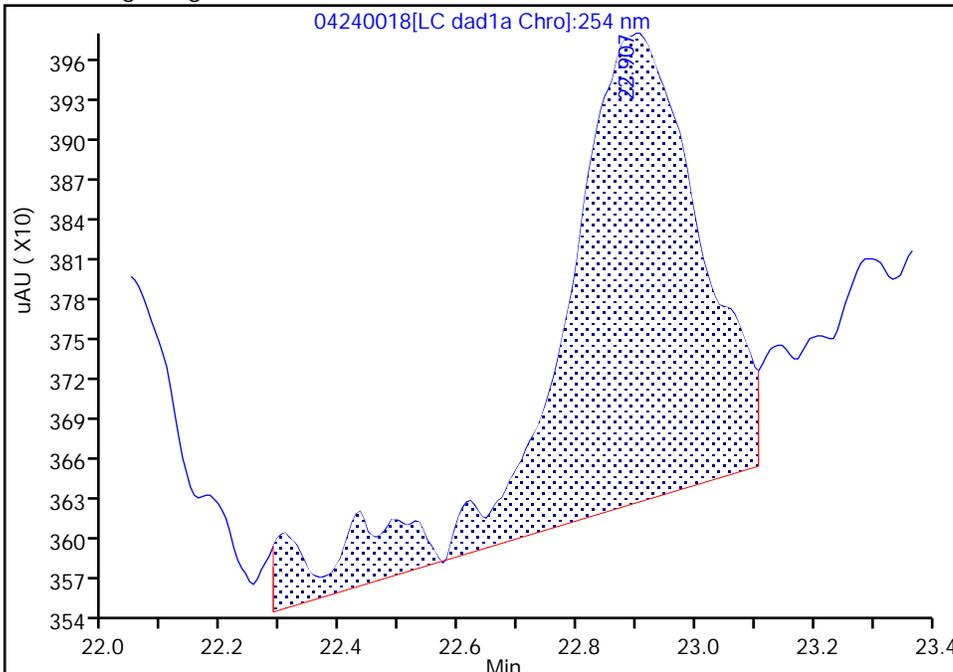
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

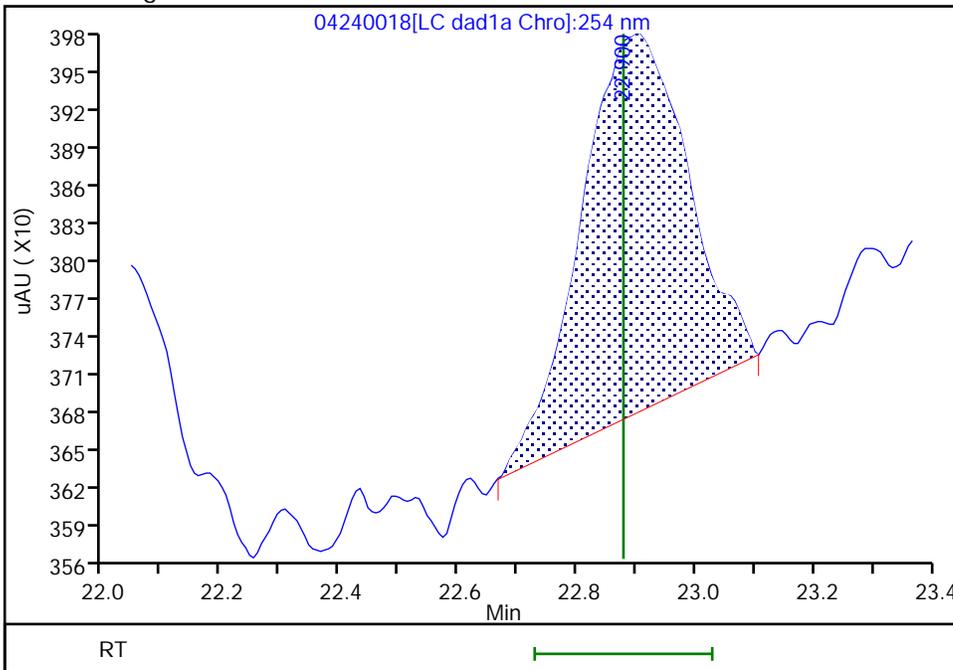
Processing Integration Results

RT: 22.91
Area: 5799
Amount: 0.013400
Amount Units: ug/ml



Manual Integration Results

RT: 22.90
Area: 3703
Amount: 0.009263
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:38:04 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Calibration

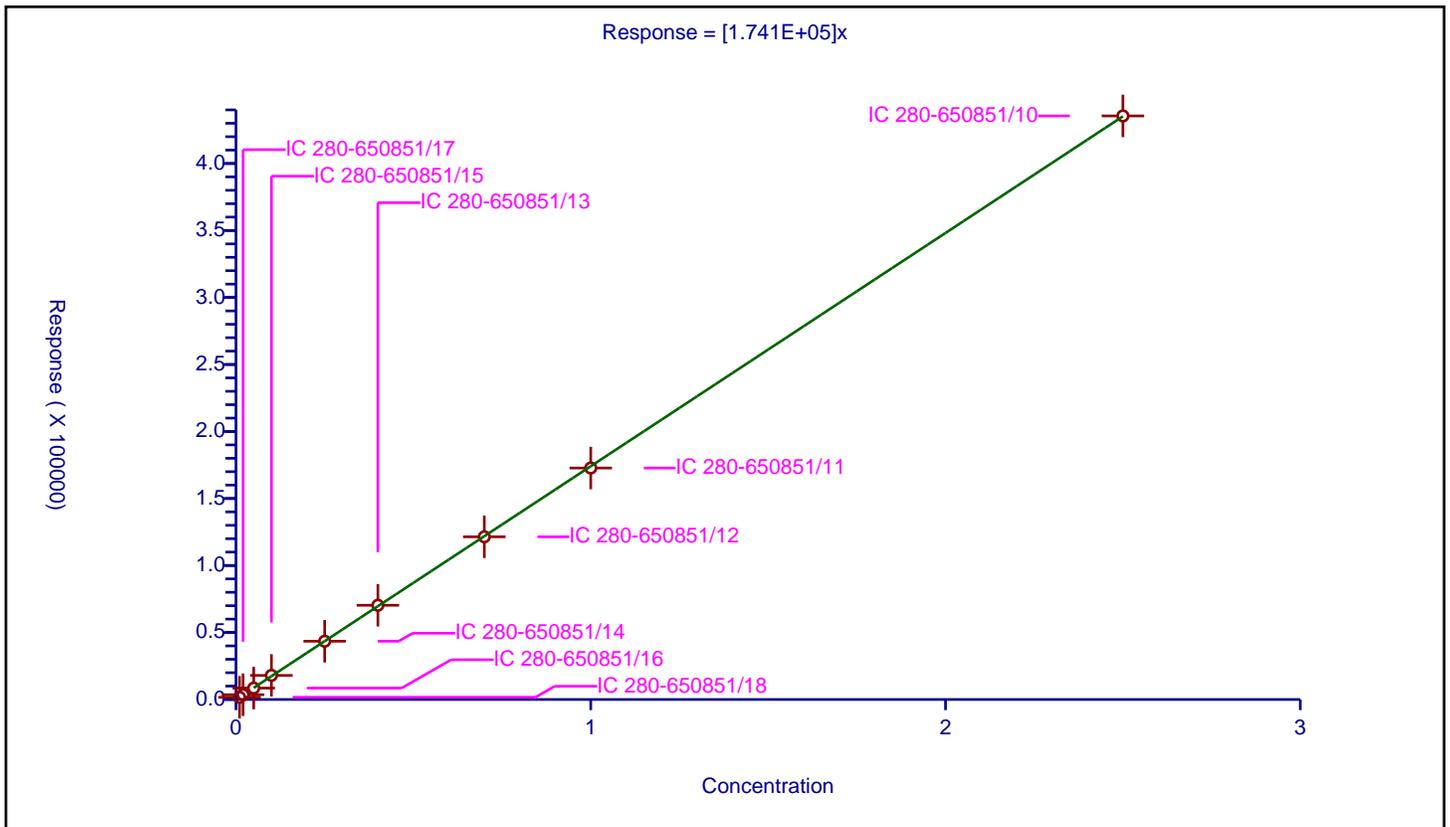
/ HMX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.741E+05

Error Coefficients	
Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1677.0			167700.0	Y
2	IC 280-650851/17	0.02	3578.0			178900.0	Y
3	IC 280-650851/16	0.05	8509.0			170180.0	Y
4	IC 280-650851/15	0.1	17977.0			179770.0	Y
5	IC 280-650851/14	0.25	43487.0			173948.0	Y
6	IC 280-650851/13	0.4	70323.0			175807.5	Y
7	IC 280-650851/12	0.7	121397.0			173424.285714	Y
8	IC 280-650851/11	1.0	172751.0			172751.0	Y
9	IC 280-650851/10	2.5	435504.0			174201.6	Y



Calibration

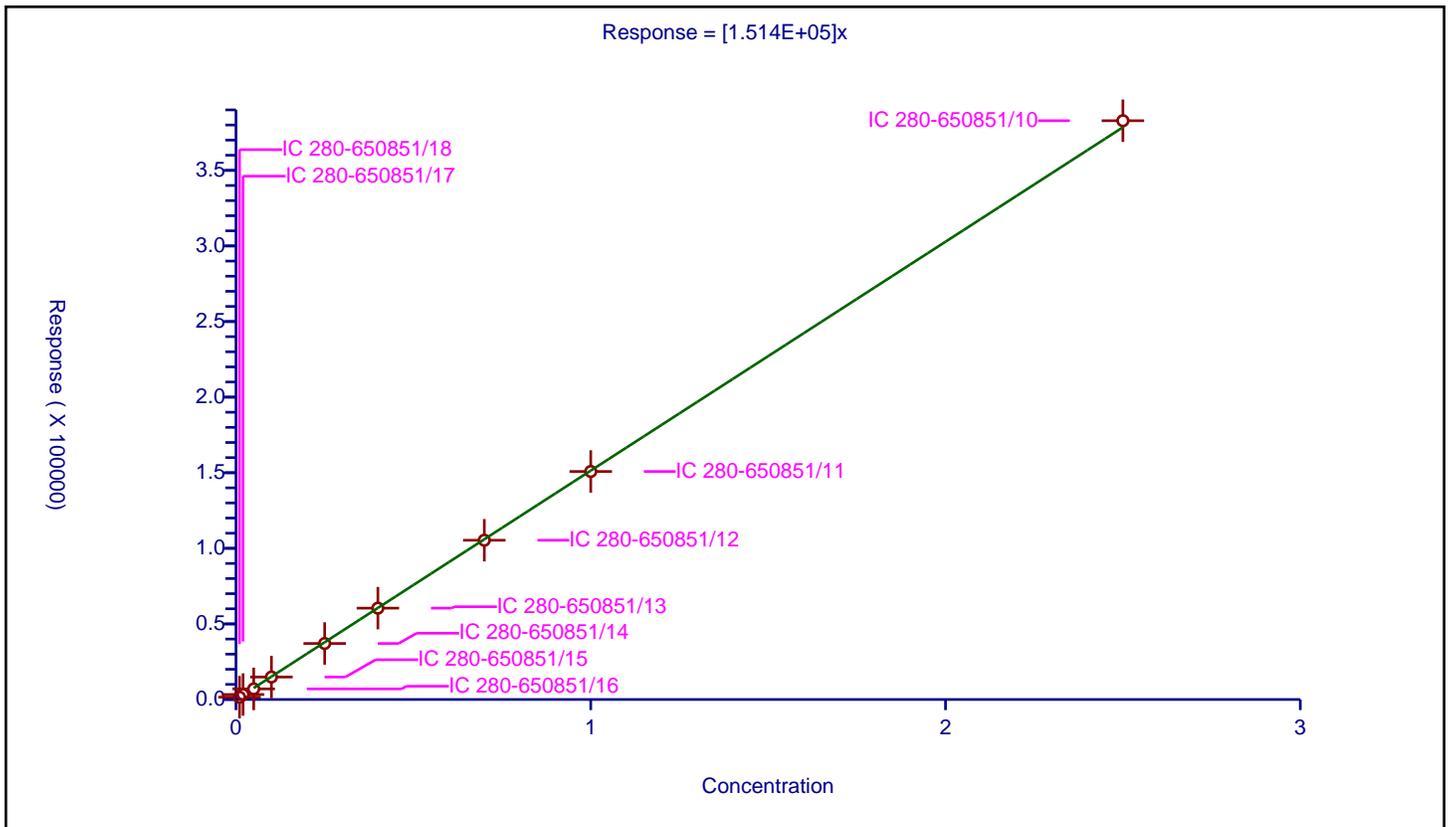
/ 2,4,6-Trinitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.514E+05

Error Coefficients	
Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1549.0			154900.0	Y
2	IC 280-650851/17	0.02	3302.0			165100.0	Y
3	IC 280-650851/16	0.05	7014.0			140280.0	Y
4	IC 280-650851/15	0.1	14859.0			148590.0	Y
5	IC 280-650851/14	0.25	37043.0			148172.0	Y
6	IC 280-650851/13	0.4	60435.0			151087.5	Y
7	IC 280-650851/12	0.7	105341.0			150487.142857	Y
8	IC 280-650851/11	1.0	150820.0			150820.0	Y
9	IC 280-650851/10	2.5	382843.0			153137.2	Y



Calibration

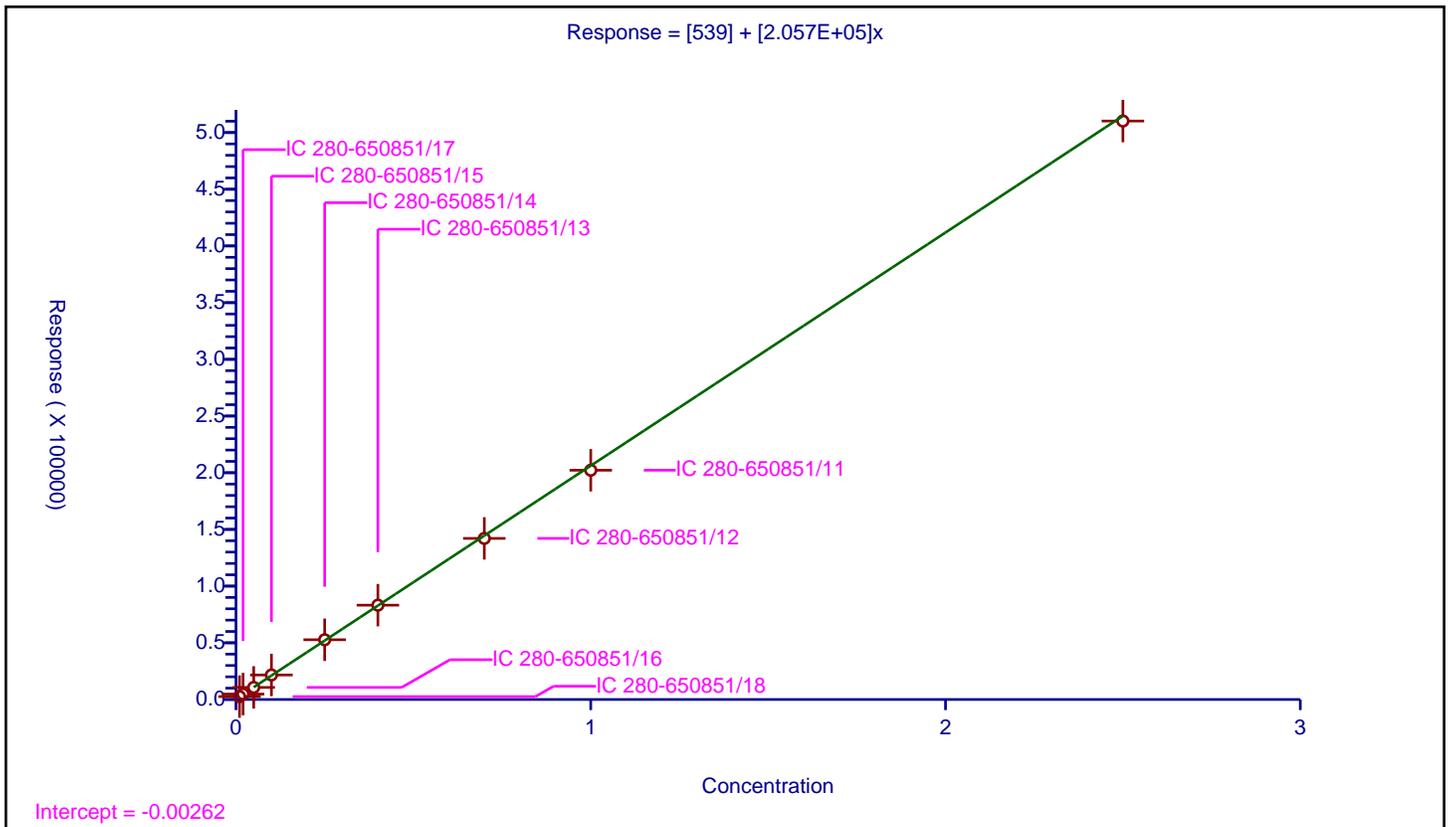
/ RDX

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	539
Slope:	2.057E+05

Error Coefficients	
Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2562.0			256200.0	Y
2	IC 280-650851/17	0.02	4791.0			239550.0	Y
3	IC 280-650851/16	0.05	10654.0			213080.0	Y
4	IC 280-650851/15	0.1	21609.0			216090.0	Y
5	IC 280-650851/14	0.25	52707.0			210828.0	Y
6	IC 280-650851/13	0.4	83185.0			207962.5	Y
7	IC 280-650851/12	0.7	142066.0			202951.428571	Y
8	IC 280-650851/11	1.0	202193.0			202193.0	Y
9	IC 280-650851/10	2.5	510182.0			204072.8	Y



Calibration

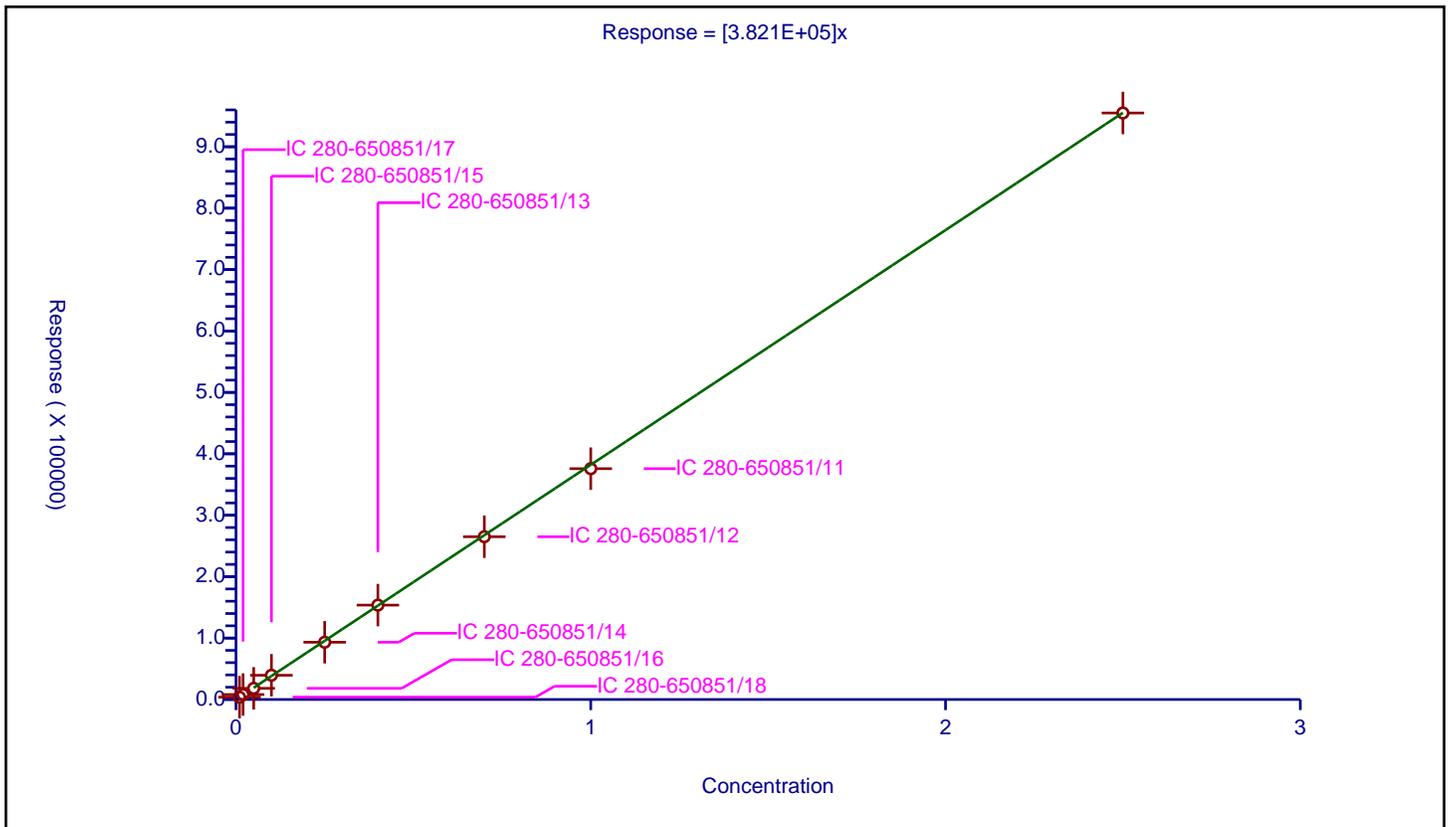
/ Nitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.821E+05

Error Coefficients	
Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3818.0			381800.0	Y
2	IC 280-650851/17	0.02	8101.0			405050.0	Y
3	IC 280-650851/16	0.05	18193.0			363860.0	Y
4	IC 280-650851/15	0.1	39489.0			394890.0	Y
5	IC 280-650851/14	0.25	93225.0			372900.0	Y
6	IC 280-650851/13	0.4	153657.0			384142.5	Y
7	IC 280-650851/12	0.7	265026.0			378608.571429	Y
8	IC 280-650851/11	1.0	375845.0			375845.0	Y
9	IC 280-650851/10	2.5	954967.0			381986.8	Y



Calibration

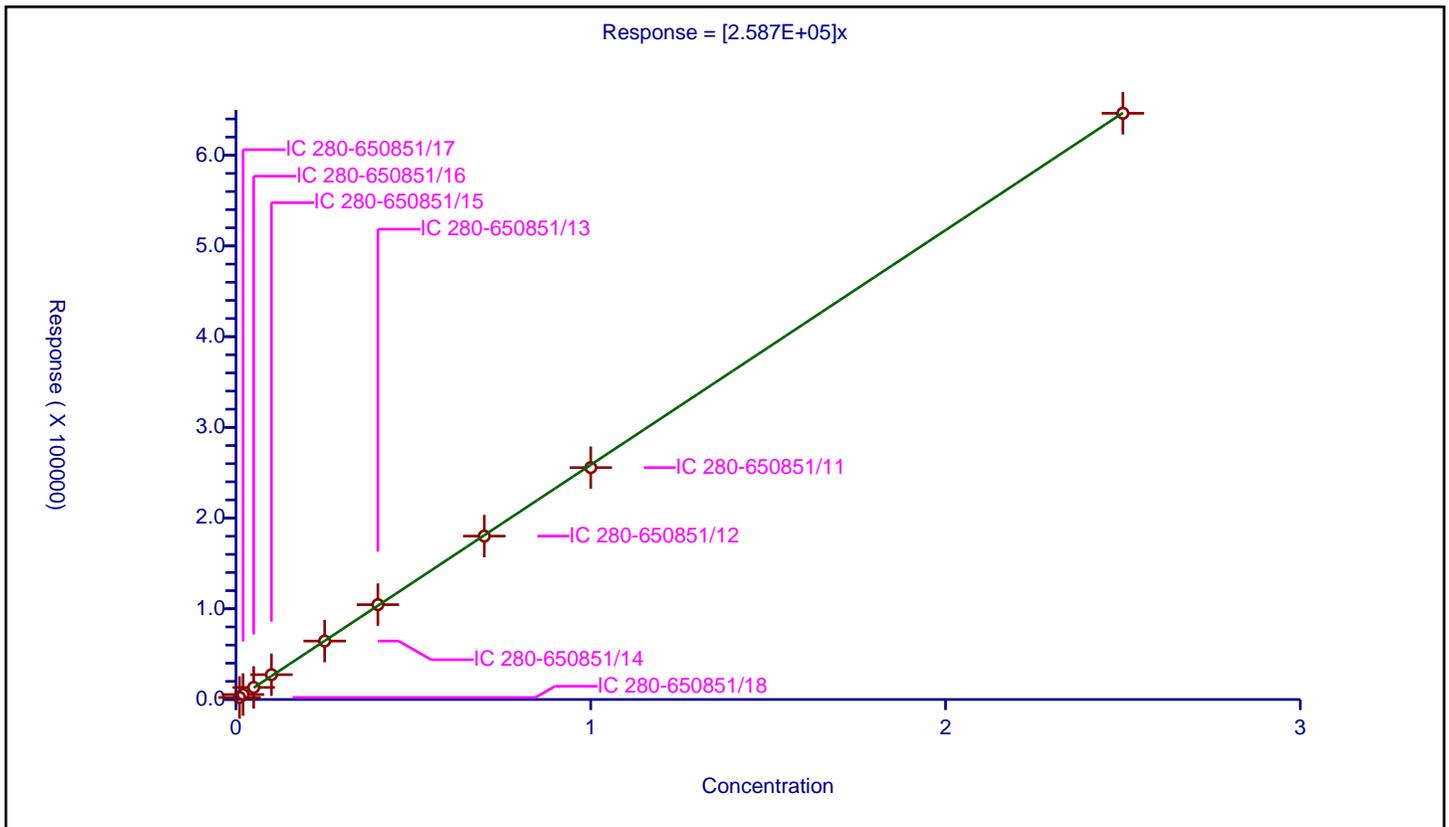
/ 1,2-Dinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.587E+05

Error Coefficients	
Relative Standard Deviation:	5.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2237.0			223700.0	Y
2	IC 280-650851/17	0.02	5474.0			273700.0	Y
3	IC 280-650851/16	0.05	13324.0			266480.0	Y
4	IC 280-650851/15	0.1	27370.0			273700.0	Y
5	IC 280-650851/14	0.25	64431.0			257724.0	Y
6	IC 280-650851/13	0.4	104562.0			261405.0	Y
7	IC 280-650851/12	0.7	180143.0			257347.142857	Y
8	IC 280-650851/11	1.0	255644.0			255644.0	Y
9	IC 280-650851/10	2.5	646251.0			258500.4	Y



Calibration

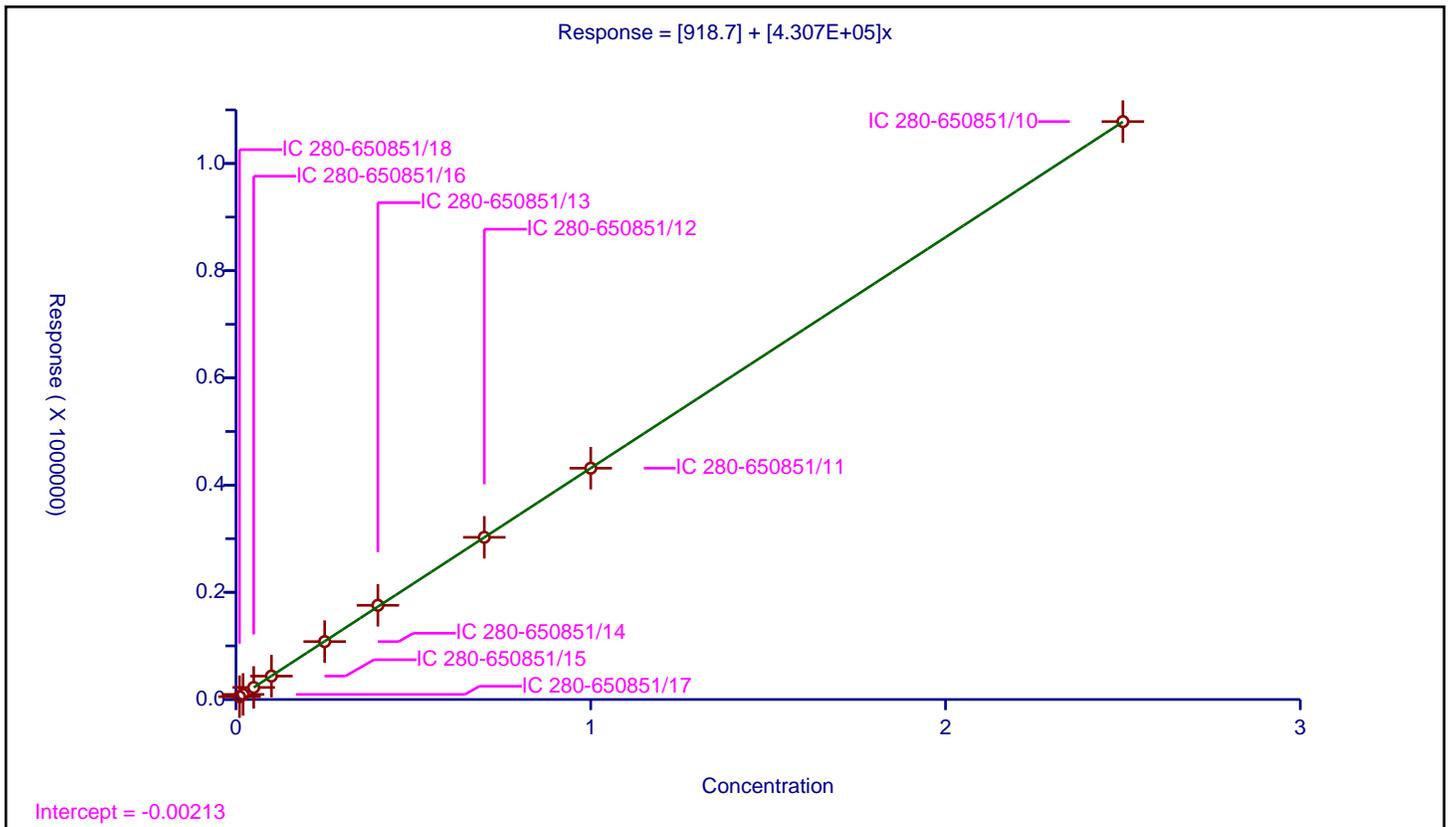
/ 3,5-Dinitroaniline

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	918.7
Slope:	4.307E+05

Error Coefficients	
Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5245.0			524500.0	Y
2	IC 280-650851/17	0.02	9463.0			473150.0	Y
3	IC 280-650851/16	0.05	22481.0			449620.0	Y
4	IC 280-650851/15	0.1	43670.0			436700.0	Y
5	IC 280-650851/14	0.25	108023.0			432092.0	Y
6	IC 280-650851/13	0.4	175740.0			439350.0	Y
7	IC 280-650851/12	0.7	302587.0			432267.142857	Y
8	IC 280-650851/11	1.0	431522.0			431522.0	Y
9	IC 280-650851/10	2.5	1078184.0			431273.6	Y



Calibration

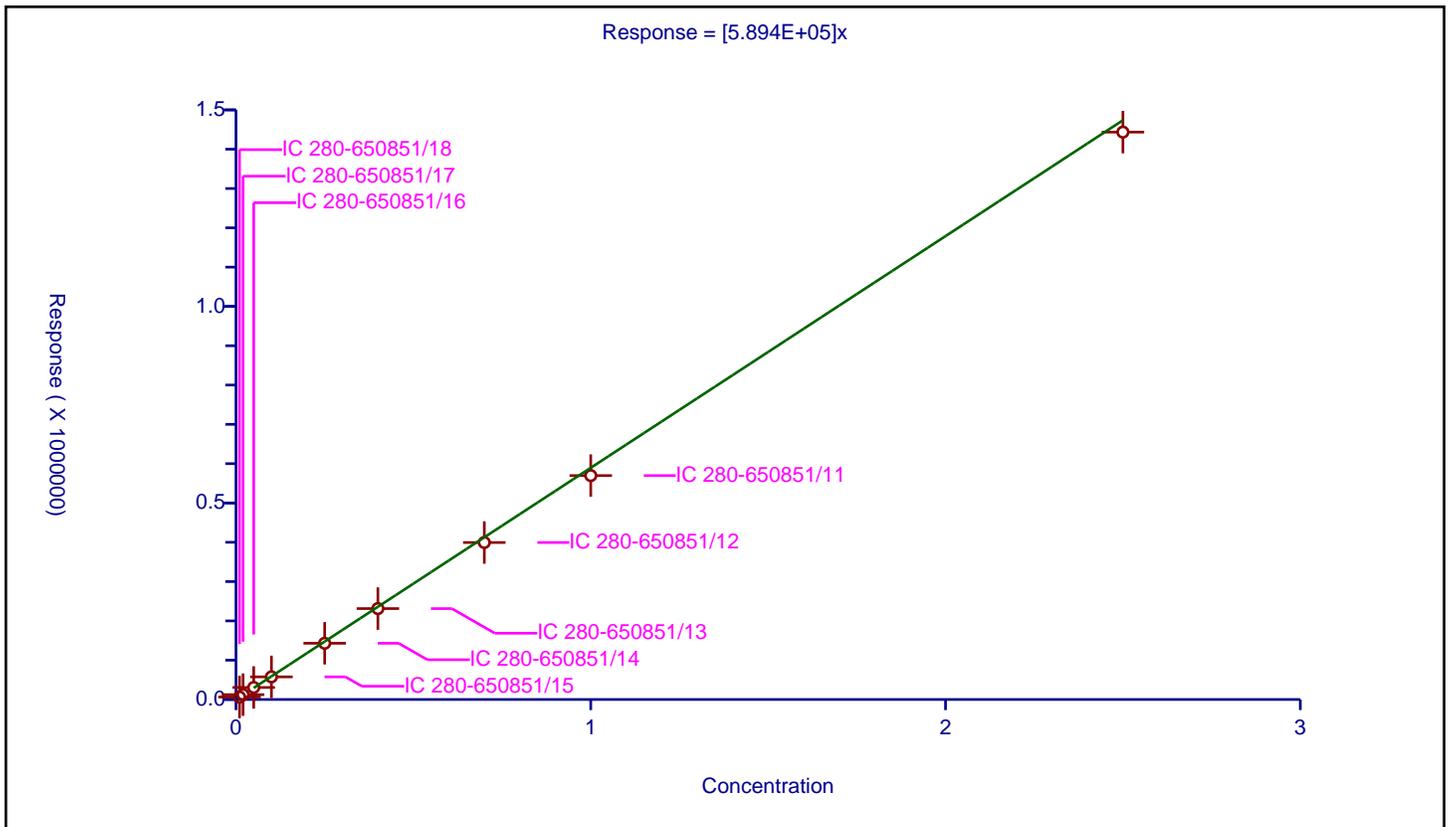
/ 1,3-Dinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	5.894E+05

Error Coefficients	
Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	6332.0			633200.0	Y
2	IC 280-650851/17	0.02	12318.0			615900.0	Y
3	IC 280-650851/16	0.05	30596.0			611920.0	Y
4	IC 280-650851/15	0.1	57592.0			575920.0	Y
5	IC 280-650851/14	0.25	143019.0			572076.0	Y
6	IC 280-650851/13	0.4	231256.0			578140.0	Y
7	IC 280-650851/12	0.7	399408.0			570582.857143	Y
8	IC 280-650851/11	1.0	569625.0			569625.0	Y
9	IC 280-650851/10	2.5	1443498.0			577399.2	Y



Calibration

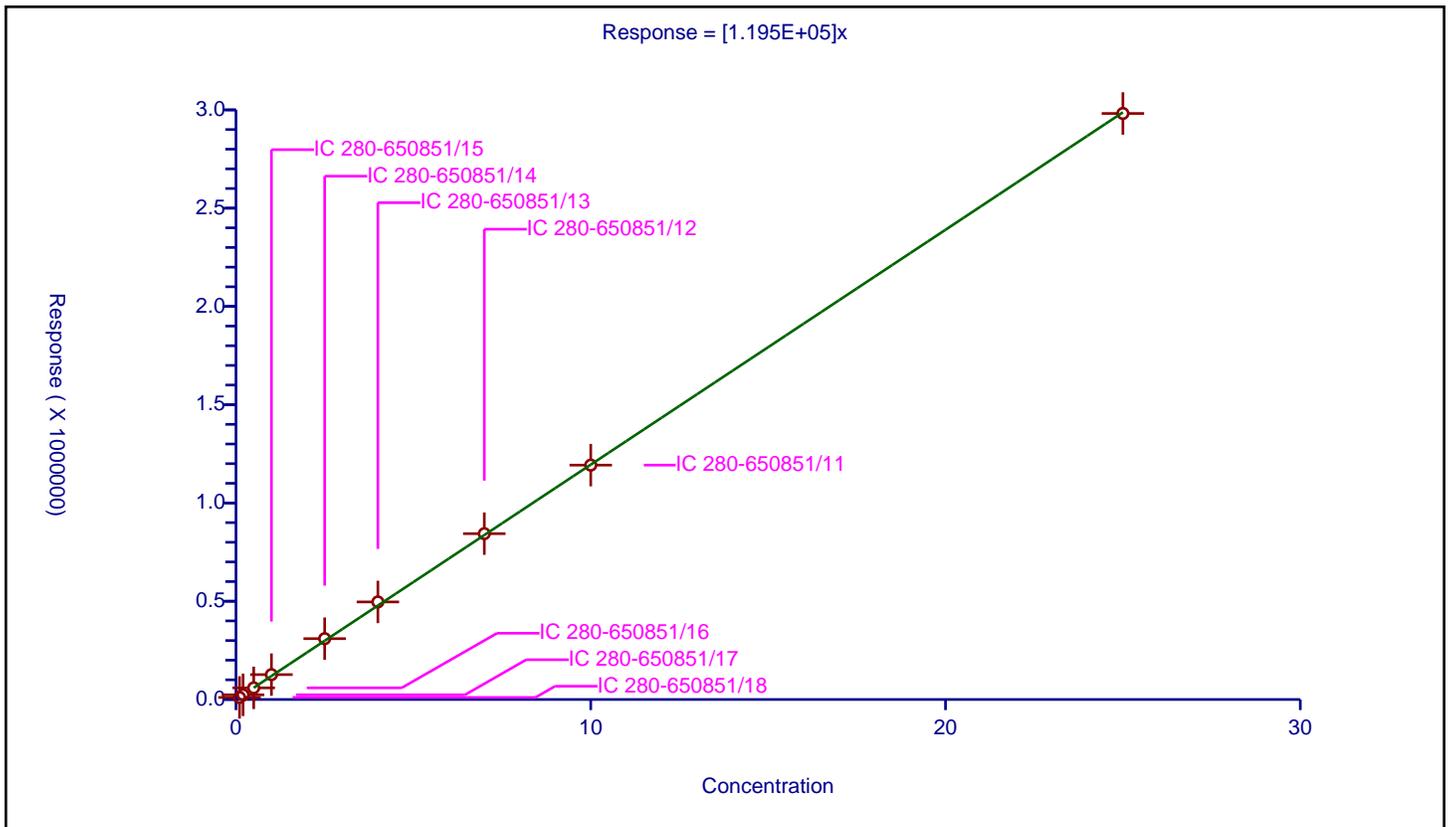
/ Nitroglycerin

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.195E+05

Error Coefficients	
Relative Standard Deviation:	5.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10431.0			104310.0	Y
2	IC 280-650851/17	0.2	23877.0			119385.0	Y
3	IC 280-650851/16	0.5	59130.0			118260.0	Y
4	IC 280-650851/15	1.0	126558.0			126558.0	Y
5	IC 280-650851/14	2.5	309600.0			123840.0	Y
6	IC 280-650851/13	4.0	496432.0			124108.0	Y
7	IC 280-650851/12	7.0	843844.0			120549.142857	Y
8	IC 280-650851/11	10.0	1192597.0			119259.7	Y
9	IC 280-650851/10	25.0	2981826.0			119273.04	Y



Calibration

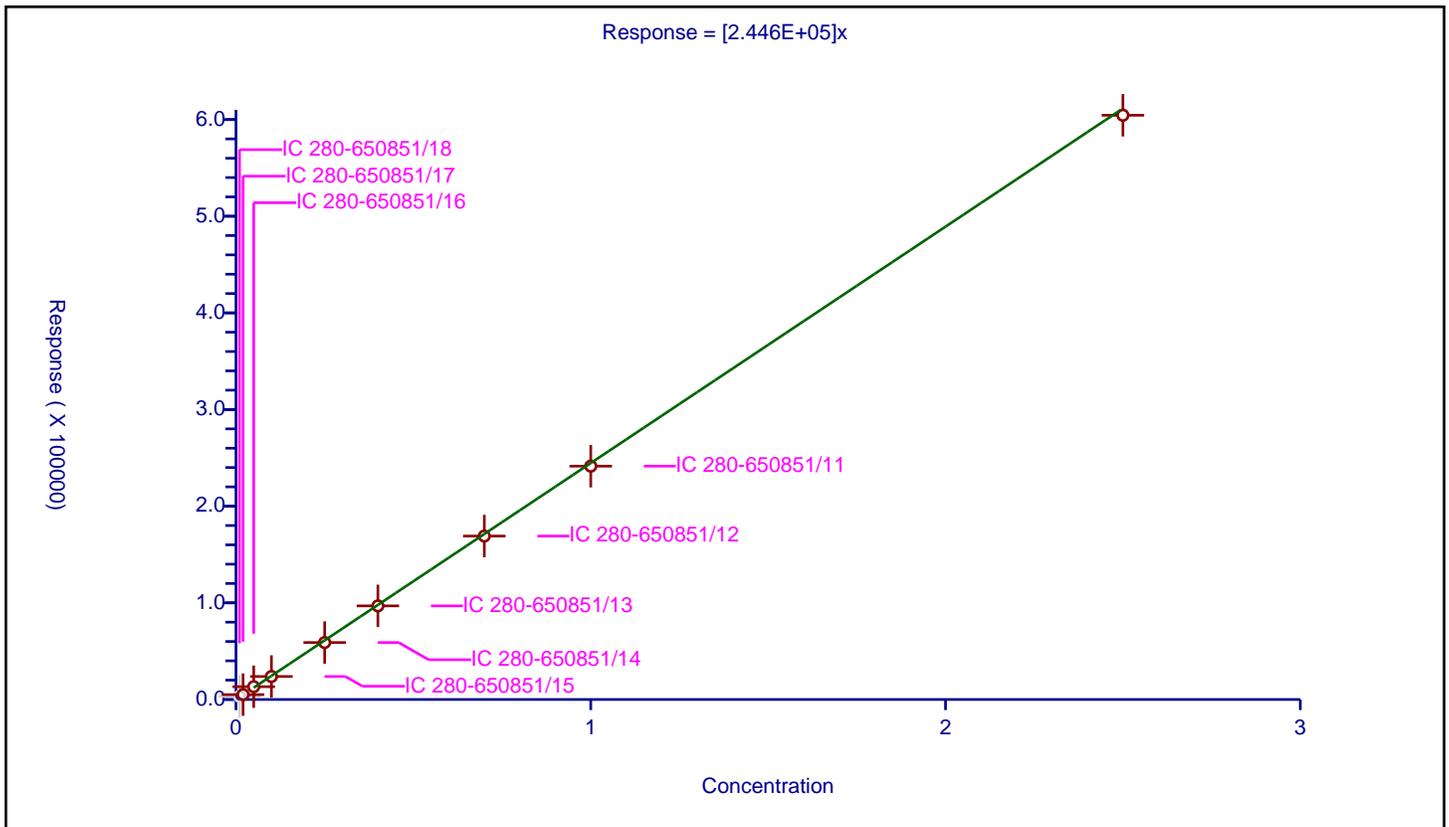
/ o-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.446E+05

Error Coefficients	
Relative Standard Deviation:	3.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3289.0			328900.0	N
2	IC 280-650851/17	0.02	5024.0			251200.0	Y
3	IC 280-650851/16	0.05	13247.0			264940.0	Y
4	IC 280-650851/15	0.1	23799.0			237990.0	Y
5	IC 280-650851/14	0.25	58941.0			235764.0	Y
6	IC 280-650851/13	0.4	96839.0			242097.5	Y
7	IC 280-650851/12	0.7	169093.0			241561.428571	Y
8	IC 280-650851/11	1.0	241414.0			241414.0	Y
9	IC 280-650851/10	2.5	604470.0			241788.0	Y



Calibration

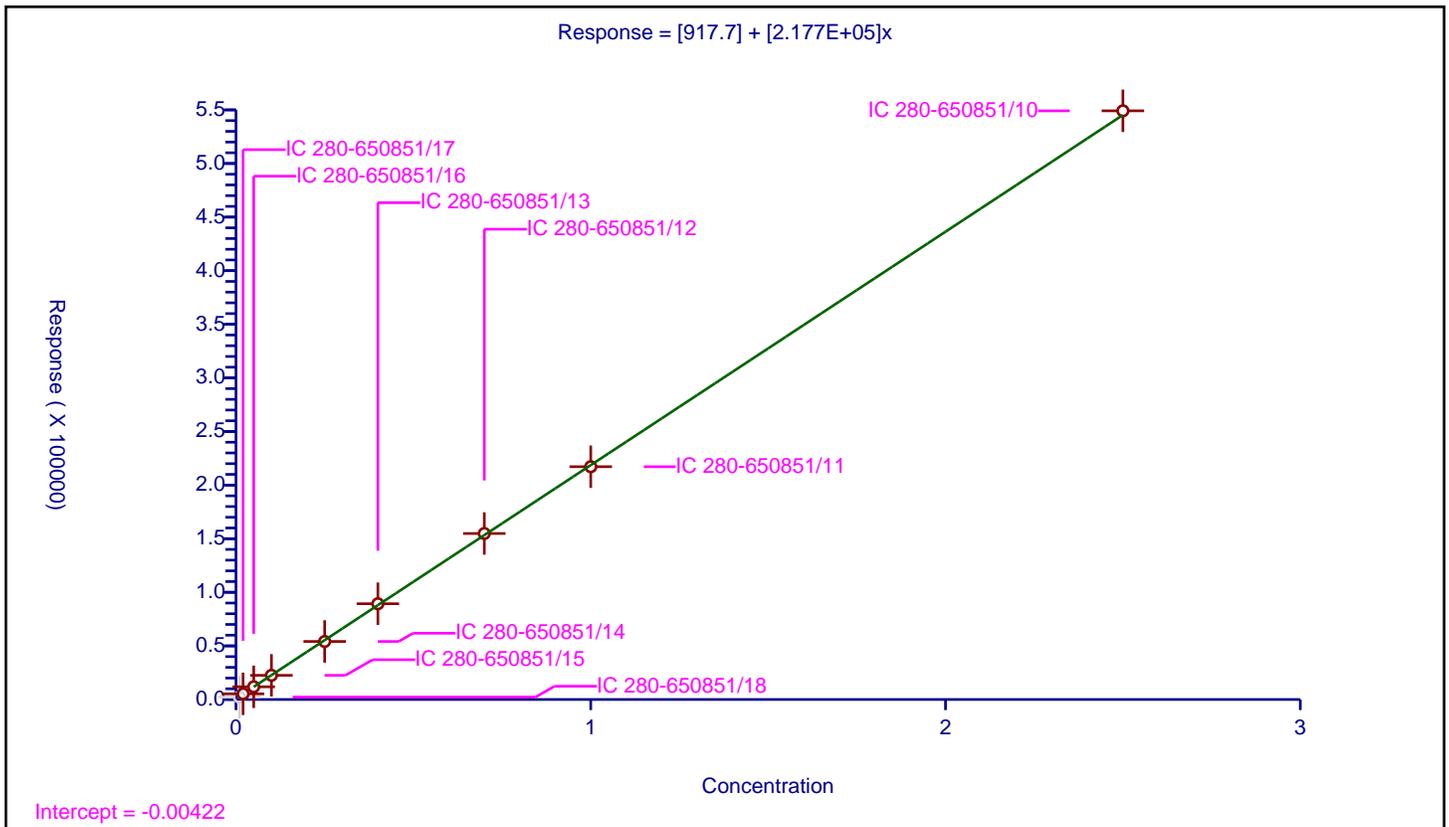
/ p-Nitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	917.7
Slope:	2.177E+05

Error Coefficients	
Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2223.0			222300.0	N
2	IC 280-650851/17	0.02	5278.0			263900.0	Y
3	IC 280-650851/16	0.05	11825.0			236500.0	Y
4	IC 280-650851/15	0.1	22549.0			225490.0	Y
5	IC 280-650851/14	0.25	54130.0			216520.0	Y
6	IC 280-650851/13	0.4	89334.0			223335.0	Y
7	IC 280-650851/12	0.7	154841.0			221201.428571	Y
8	IC 280-650851/11	1.0	217154.0			217154.0	Y
9	IC 280-650851/10	2.5	549133.0			219653.2	Y



Calibration

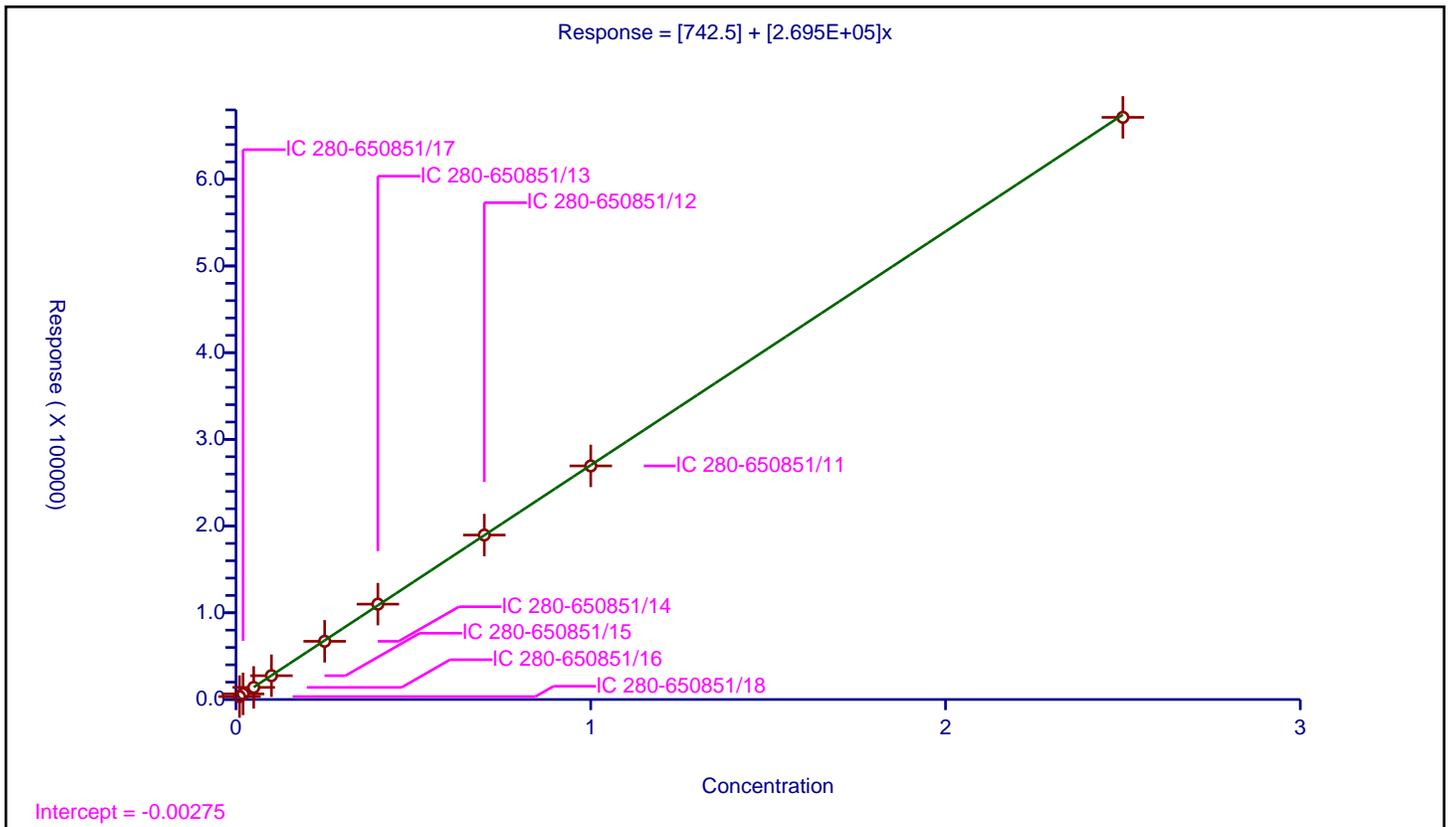
/ 4-Amino-2,6-dinitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	742.5
Slope:	2.695E+05

Error Coefficients	
Relative Standard Deviation:	2.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3366.0			336600.0	Y
2	IC 280-650851/17	0.02	6474.0			323700.0	Y
3	IC 280-650851/16	0.05	13955.0			279100.0	Y
4	IC 280-650851/15	0.1	27449.0			274490.0	Y
5	IC 280-650851/14	0.25	67115.0			268460.0	Y
6	IC 280-650851/13	0.4	109971.0			274927.5	Y
7	IC 280-650851/12	0.7	189660.0			270942.857143	Y
8	IC 280-650851/11	1.0	269382.0			269382.0	Y
9	IC 280-650851/10	2.5	671412.0			268564.8	Y



Calibration

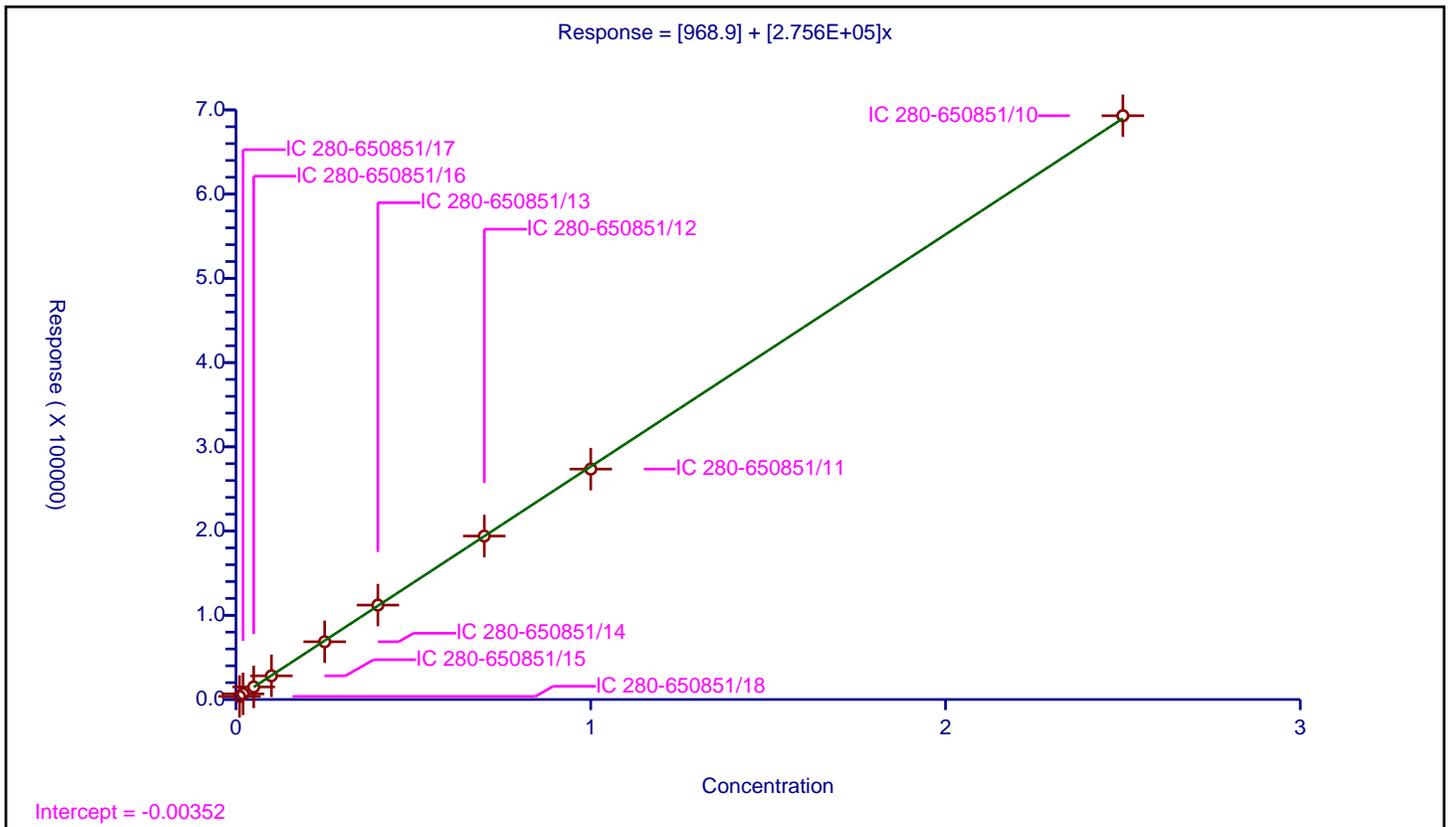
/ m-Nitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	968.9
Slope:	2.756E+05

Error Coefficients	
Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3672.0			367200.0	Y
2	IC 280-650851/17	0.02	6685.0			334250.0	Y
3	IC 280-650851/16	0.05	14941.0			298820.0	Y
4	IC 280-650851/15	0.1	28103.0			281030.0	Y
5	IC 280-650851/14	0.25	68559.0			274236.0	Y
6	IC 280-650851/13	0.4	112076.0			280190.0	Y
7	IC 280-650851/12	0.7	194048.0			277211.428571	Y
8	IC 280-650851/11	1.0	273569.0			273569.0	Y
9	IC 280-650851/10	2.5	693064.0			277225.6	Y



Calibration

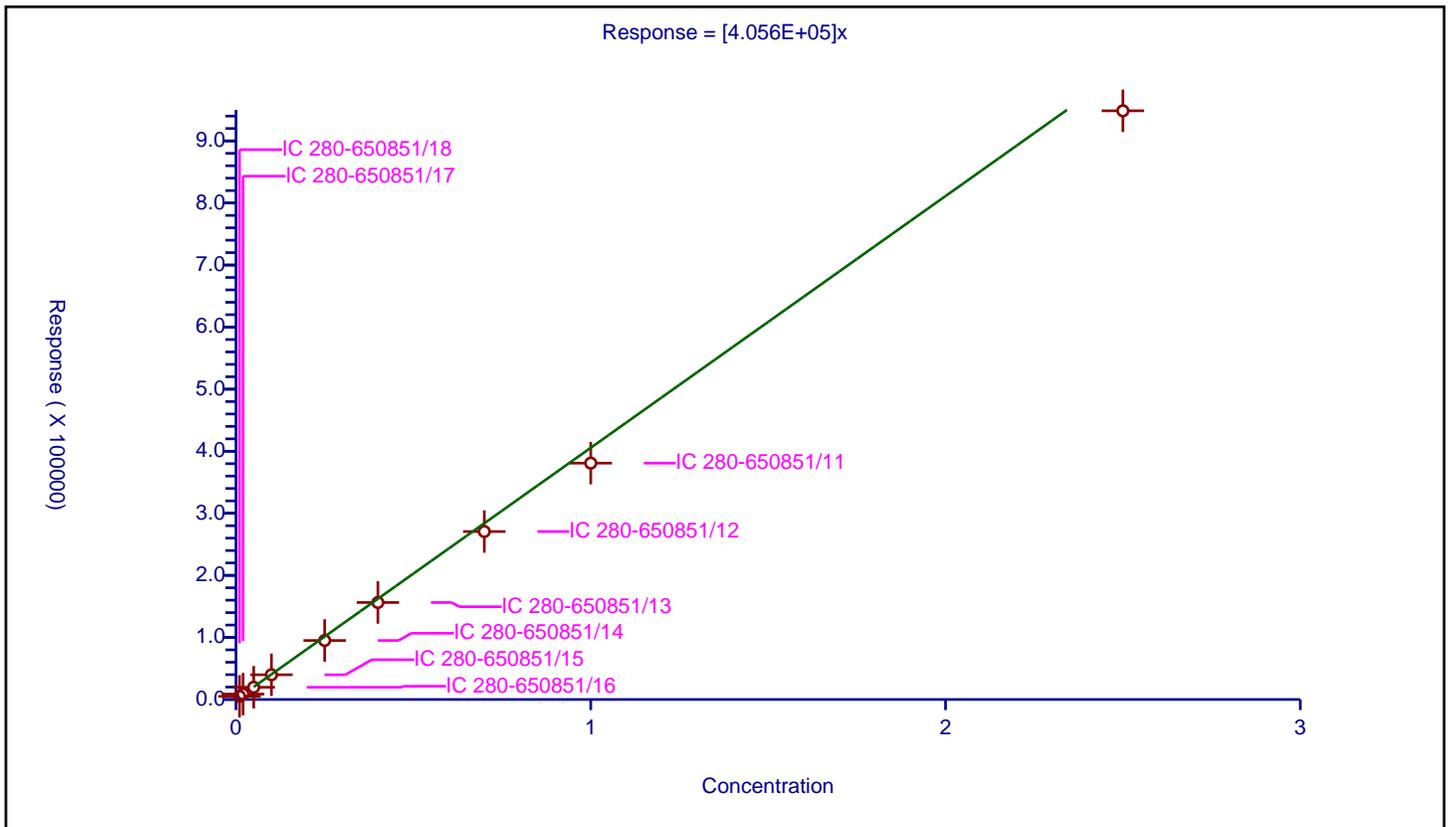
/ 2-Amino-4,6-dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.056E+05

Error Coefficients	
Relative Standard Deviation:	9.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5022.0			502200.0	Y
2	IC 280-650851/17	0.02	8733.0			436650.0	Y
3	IC 280-650851/16	0.05	19735.0			394700.0	Y
4	IC 280-650851/15	0.1	39853.0			398530.0	Y
5	IC 280-650851/14	0.25	95082.0			380328.0	Y
6	IC 280-650851/13	0.4	156312.0			390780.0	Y
7	IC 280-650851/12	0.7	270634.0			386620.0	Y
8	IC 280-650851/11	1.0	380835.0			380835.0	Y
9	IC 280-650851/10	2.5	948541.0			379416.4	Y



Calibration

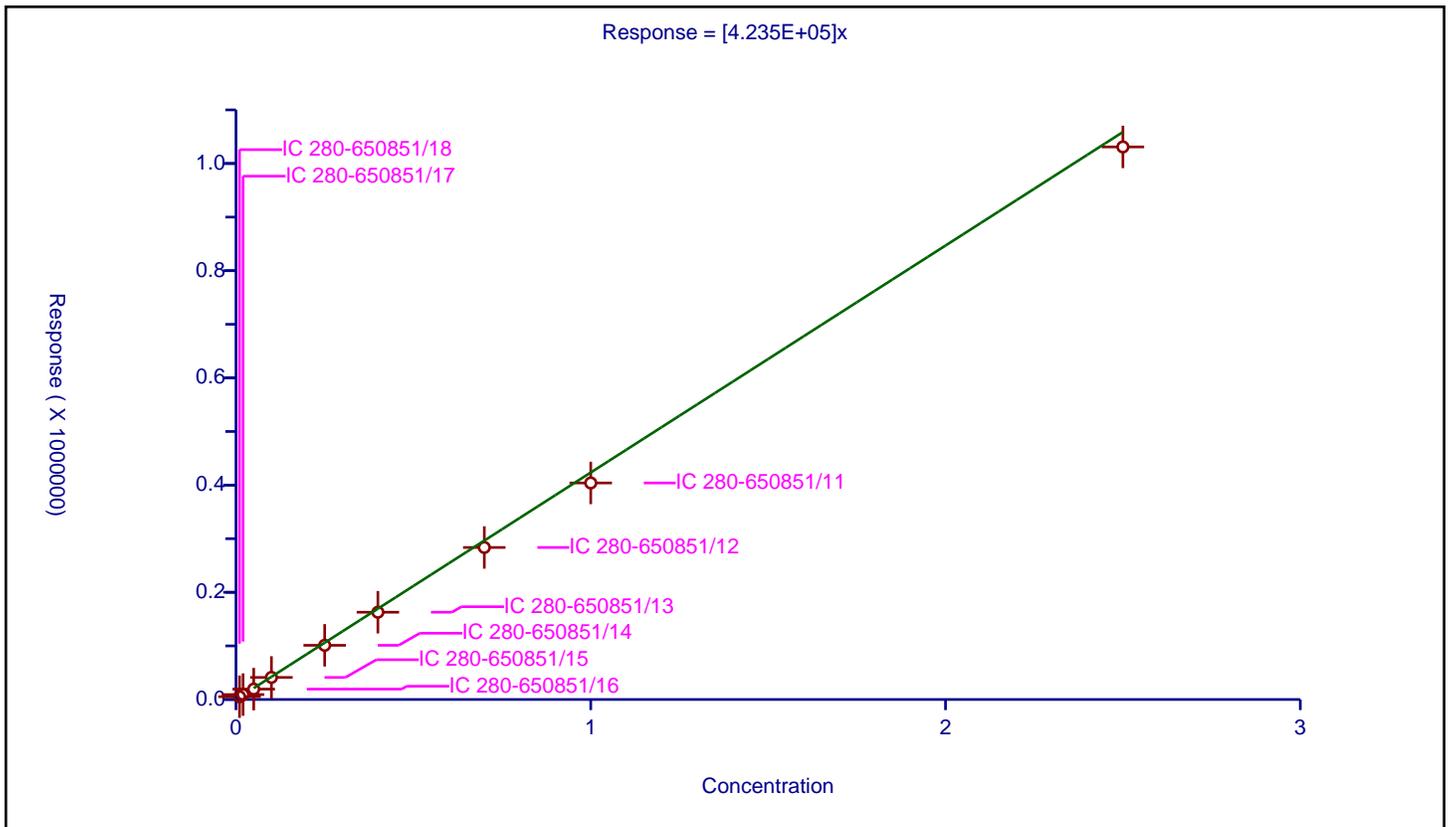
/ 1,3,5-Trinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.235E+05

Error Coefficients	
Relative Standard Deviation:	9.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5210.0			521000.0	Y
2	IC 280-650851/17	0.02	9167.0			458350.0	Y
3	IC 280-650851/16	0.05	19358.0			387160.0	Y
4	IC 280-650851/15	0.1	41177.0			411770.0	Y
5	IC 280-650851/14	0.25	101067.0			404268.0	Y
6	IC 280-650851/13	0.4	162815.0			407037.5	Y
7	IC 280-650851/12	0.7	283624.0			405177.142857	Y
8	IC 280-650851/11	1.0	403965.0			403965.0	Y
9	IC 280-650851/10	2.5	1030907.0			412362.8	Y



Calibration

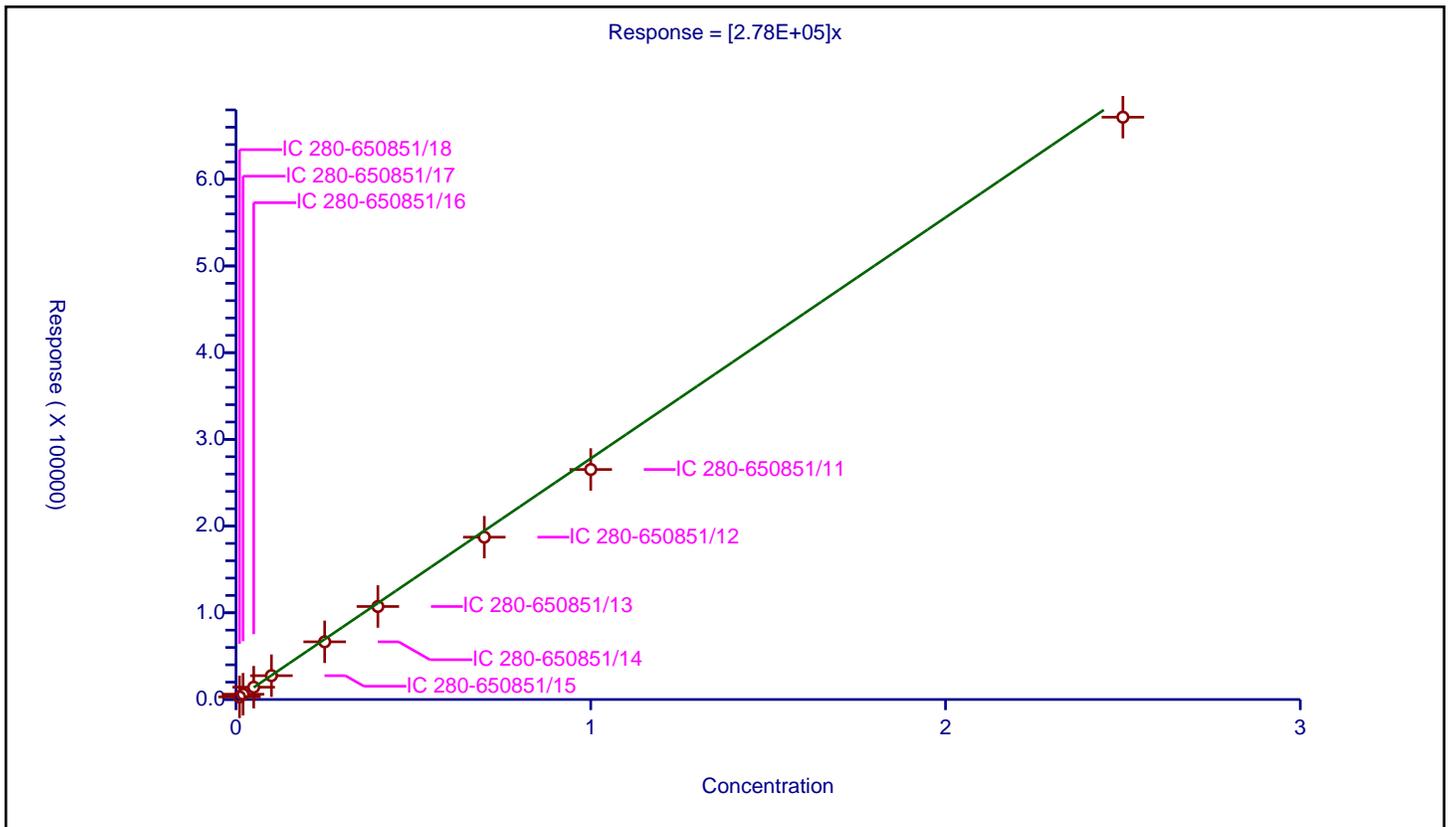
/ 2,6-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.78E+05

Error Coefficients	
Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3016.0			301600.0	Y
2	IC 280-650851/17	0.02	6113.0			305650.0	Y
3	IC 280-650851/16	0.05	14197.0			283940.0	Y
4	IC 280-650851/15	0.1	27487.0			274870.0	Y
5	IC 280-650851/14	0.25	66539.0			266156.0	Y
6	IC 280-650851/13	0.4	107267.0			268167.5	Y
7	IC 280-650851/12	0.7	187213.0			267447.142857	Y
8	IC 280-650851/11	1.0	265267.0			265267.0	Y
9	IC 280-650851/10	2.5	671582.0			268632.8	Y



Calibration

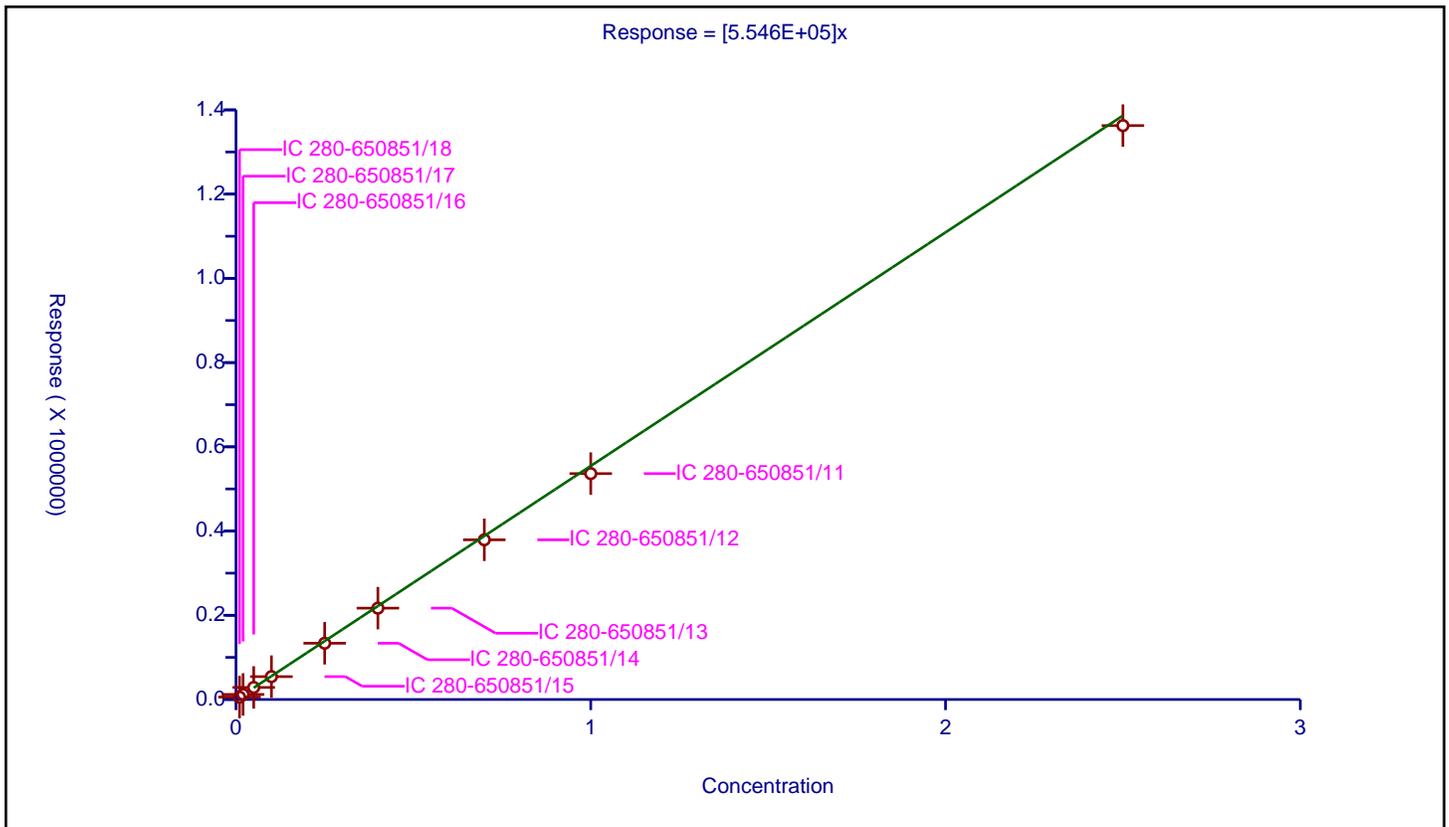
/ 2,4-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	5.546E+05

Error Coefficients	
Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5764.0			576400.0	Y
2	IC 280-650851/17	0.02	12005.0			600250.0	Y
3	IC 280-650851/16	0.05	28589.0			571780.0	Y
4	IC 280-650851/15	0.1	54294.0			542940.0	Y
5	IC 280-650851/14	0.25	133579.0			534316.0	Y
6	IC 280-650851/13	0.4	216895.0			542237.5	Y
7	IC 280-650851/12	0.7	379151.0			541644.285714	Y
8	IC 280-650851/11	1.0	536407.0			536407.0	Y
9	IC 280-650851/10	2.5	1362753.0			545101.2	Y



Calibration

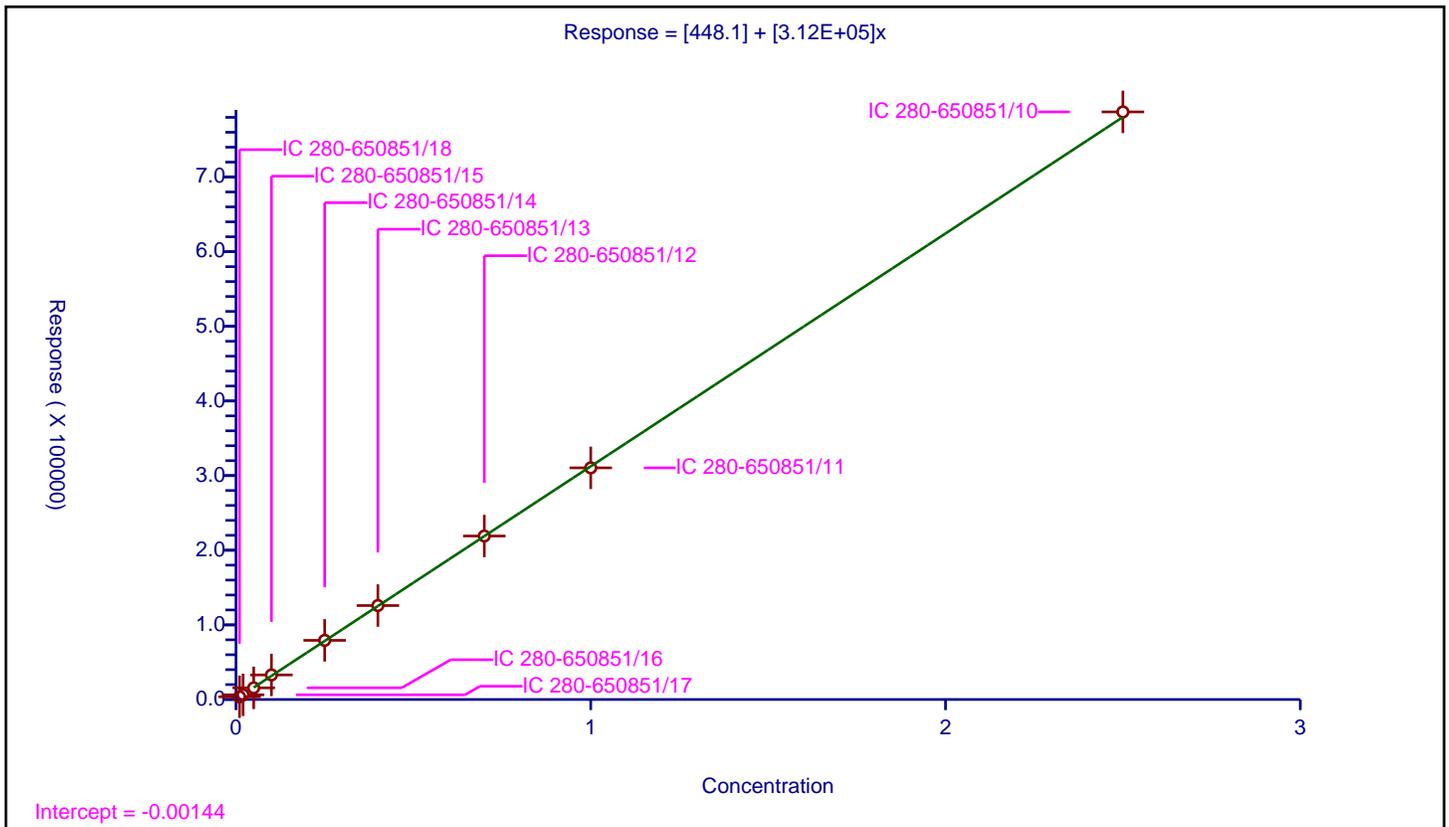
/ Tetryl

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	448.1
Slope:	3.12E+05

Error Coefficients	
Relative Standard Deviation:	3.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3675.0			367500.0	Y
2	IC 280-650851/17	0.02	6268.0			313400.0	Y
3	IC 280-650851/16	0.05	15630.0			312600.0	Y
4	IC 280-650851/15	0.1	32920.0			329200.0	Y
5	IC 280-650851/14	0.25	79229.0			316916.0	Y
6	IC 280-650851/13	0.4	125893.0			314732.5	Y
7	IC 280-650851/12	0.7	219045.0			312921.428571	Y
8	IC 280-650851/11	1.0	310388.0			310388.0	Y
9	IC 280-650851/10	2.5	787307.0			314922.8	Y



Calibration

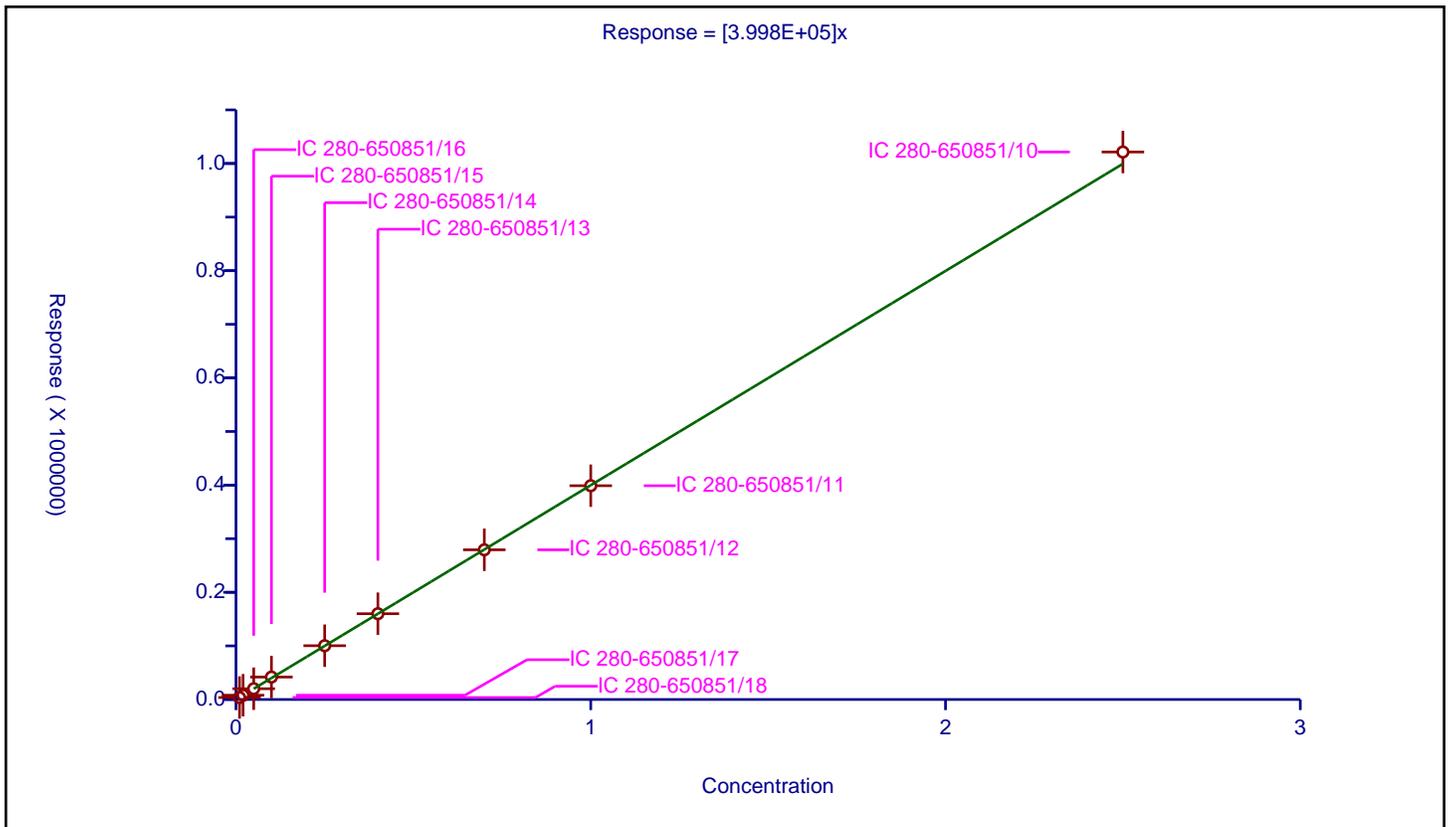
/ 2,4,6-Trinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.998E+05

Error Coefficients	
Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3703.0			370300.0	Y
2	IC 280-650851/17	0.02	7969.0			398450.0	Y
3	IC 280-650851/16	0.05	20131.0			402620.0	Y
4	IC 280-650851/15	0.1	41861.0			418610.0	Y
5	IC 280-650851/14	0.25	100337.0			401348.0	Y
6	IC 280-650851/13	0.4	160072.0			400180.0	Y
7	IC 280-650851/12	0.7	279268.0			398954.285714	Y
8	IC 280-650851/11	1.0	398830.0			398830.0	Y
9	IC 280-650851/10	2.5	1021428.0			408571.2	Y



Calibration

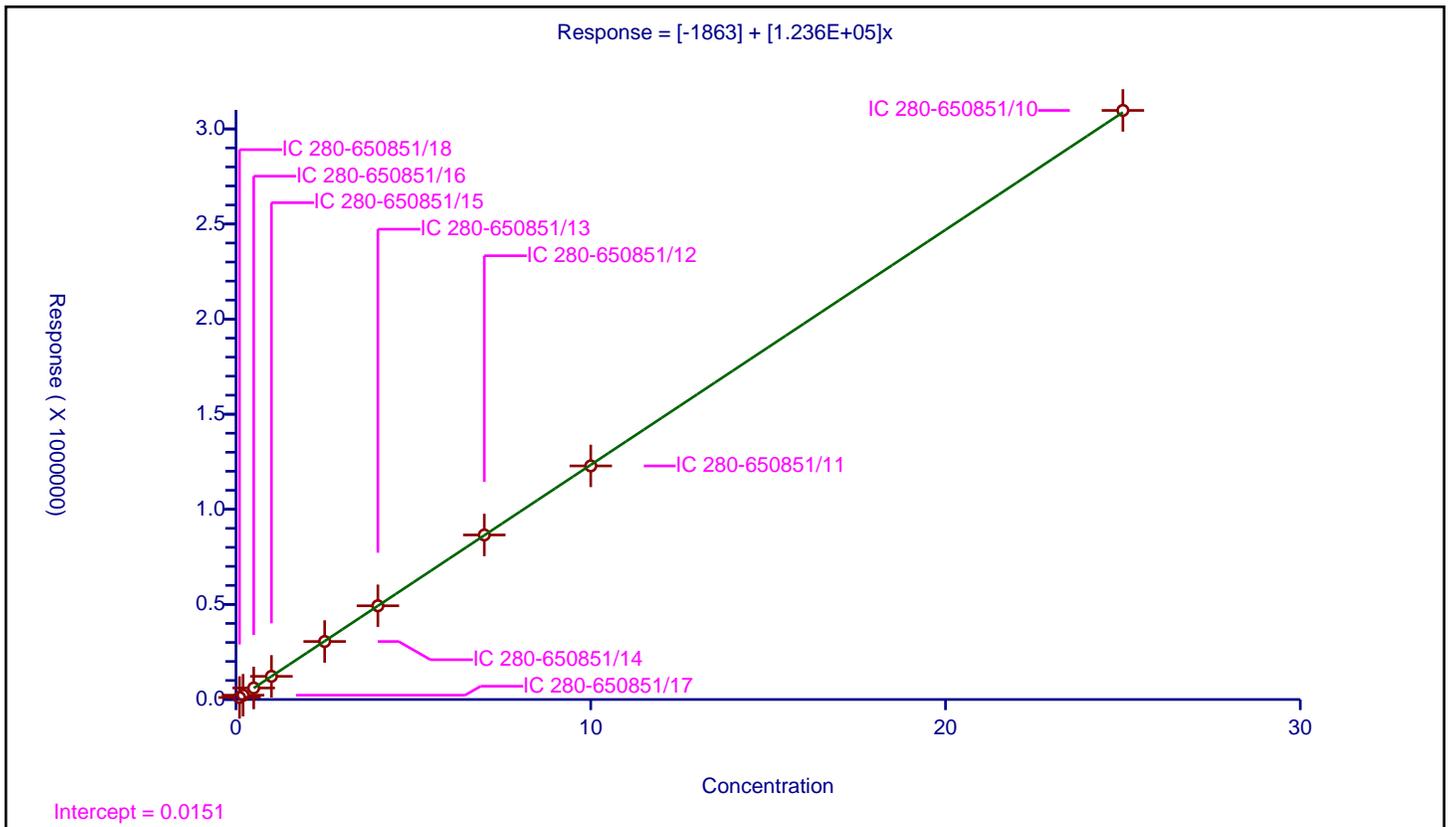
/ PETN

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1863
Slope:	1.236E+05

Error Coefficients	
Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10531.0			105310.0	Y
2	IC 280-650851/17	0.2	22594.0			112970.0	Y
3	IC 280-650851/16	0.5	60616.0			121232.0	Y
4	IC 280-650851/15	1.0	121831.0			121831.0	Y
5	IC 280-650851/14	2.5	304928.0			121971.2	Y
6	IC 280-650851/13	4.0	492803.0			123200.75	Y
7	IC 280-650851/12	7.0	865110.0			123587.142857	Y
8	IC 280-650851/11	10.0	1228090.0			122809.0	Y
9	IC 280-650851/10	25.0	3097249.0			123889.96	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 649950

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.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	6.480	6.475	6.478	6.476	6.476	6.479	6.476	6.474	6.469		6.376 - 6.576	6.476
HMX	6.580	6.582	6.578	6.583	6.582	6.586	6.582	6.581	6.575		6.433 - 6.733	6.581
DNX	6.786	6.788	6.784	6.789	6.789	6.786	6.789	6.788	6.782		6.689 - 6.889	6.787
MNX	7.206	7.202	7.204	7.203	7.209	7.206	7.202	7.208	7.195		7.053 - 7.353	7.204
RDX	7.580	7.582	7.584	7.583	7.582	7.586	7.582	7.581	7.575		7.433 - 7.733	7.582
Picric acid	7.820	7.822	7.818	7.816	7.809	7.806	7.789	7.781	7.742		7.666 - 7.966	7.800
1,3,5-Trinitrobenzene	8.660	8.655	8.658	8.656	8.656	8.659	8.656	8.654	8.649		8.506 - 8.806	8.656
1,3-Dinitrobenzene	9.273	9.275	9.277	9.276	9.276	9.279	9.276	9.274	9.262		9.126 - 9.426	9.274
Nitrobenzene	9.633	9.635	9.631	9.636	9.636	9.639	9.629	9.634	9.622		9.486 - 9.786	9.633
3,5-Dinitroaniline	9.873	9.868	9.871	9.876	9.876	9.872	9.869	9.868	9.855		9.726 - 10.026	9.870
Tetryl	9.953	9.955	9.957	9.963	9.962	9.959	9.956	9.954	9.948		9.813 - 10.113	9.956
Nitroglycerin	10.426	10.422	10.424	10.429	10.429	10.432	10.422	10.421	10.415		10.279 - 10.579	10.424
2,4,6-Trinitrotoluene	10.866	10.862	10.864	10.869	10.869	10.872	10.862	10.868	10.862		10.769 - 10.969	10.866
4-Amino-2,6-dinitrotoluene	11.046	11.042	11.044	11.049	11.049	11.052	11.042	11.041	11.035		10.949 - 11.149	11.044
2-Amino-4,6-dinitrotoluene	11.306	11.302	11.304	11.309	11.309	11.306	11.302	11.301	11.288		11.209 - 11.409	11.303
2,6-Dinitrotoluene	11.453	11.448	11.451	11.449	11.456	11.452	11.449	11.448	11.442		11.349 - 11.549	11.450
2,4-Dinitrotoluene	11.626	11.622	11.624	11.629	11.629	11.632	11.622	11.621	11.615		11.529 - 11.729	11.624
2-Nitrotoluene	12.419	12.415	12.424	12.423	12.422	12.426	12.416	12.421	12.408		12.273 - 12.573	12.419
4-Nitrotoluene	12.853	12.842	12.844	12.843	12.842	12.846	12.842	12.841	12.835		12.693 - 12.993	12.843
3-Nitrotoluene	13.399	13.395	13.404	13.403	13.402	13.406	13.396	13.394	13.388		13.253 - 13.553	13.399
PETN	14.486	14.482	14.491	14.483	14.489	14.492	14.482	14.481	14.482		14.333 - 14.633	14.485
1,2-Dinitrobenzene	8.520	8.522	8.518	8.516	8.522	8.519	8.516	8.521	8.509		8.366 - 8.666	8.518

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 649950

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.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	204283 196151 203061	200349 196188	191793 201100	199263 198742	Ave		198992.09 7			1.9		20.0				
HMX	91900 94332 96305	100850 95253	90720 96297	96450 97787	Ave		95543.715 9			3.2		20.0				
DNX	151297 147194 150909	141866 146460	144870 148038	148044 146659	Ave		147259.61 3			2.0		20.0				
MNX	141061 136630 140394	127930 137960	134936 138920	135218 137235	Ave		136698.12 2			2.9		20.0				
RDX	118700 107376 107690	116700 106868	112240 106959	111620 108752	Ave		110767.07 5			4.0		20.0				
Picric acid	78700 78992 82062	76200 79110	76940 79906	80160 81861	Ave		79325.679 4			2.5		20.0				
1,3,5-Trinitrobenzene	254900 216292 219181	217450 215905	225160 215779	221290 219723	Ave		222853.26 3			5.6		20.0				
1,3-Dinitrobenzene	308600 296760 301472	283900 297843	300460 298746	303590 303550	Ave		299435.57 9			2.3		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
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 649950

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

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	198500 190564 198214	196600 193678	195180 195570	200350 198305	Ave		196328.94 4			1.5		20.0				
3,5-Dinitroaniline	197100 219364 223150	208550 215118	215620 219330	226510 219396	Lin2	-237.2782 3	221006.73 9						1.0000		0.9900	
Tetryl	183500 180328 183105	168700 185315	180200 181964	182380 188801	Ave		181588.16 5			3.0		20.0				
Nitroglycerin	60480 66994 66784	59815 66731	71314 66745	71367 67945	Ave		66463.888 6			6.1		20.0				
2,4,6-Trinitrotoluene	208100 214372 215788	220000 213738	213380 214716	219120 217516	Ave		215192.17 9			1.7		20.0				
4-Amino-2,6-dinitrotoluene	140600 147324 149438	163050 147888	150660 147166	153440 149965	Ave		149947.84 6			4.0		20.0				
2-Amino-4,6-dinitrotoluene	195100 199804 204593	199850 197140	198460 200077	200330 202927	Ave		199809.03 8			1.4		20.0				
2,6-Dinitrotoluene	155700 143756 144234	144000 147368	145340 143629	152180 146021	Ave		146914.11 9			2.9		20.0				
2,4-Dinitrotoluene	299300 289256 292258	289650 288388	288500 289931	294520 294790	Ave		291843.61 4			1.3		20.0				
2-Nitrotoluene	134000 124092 127714	138850 125230	130520 125813	129770 127758	Ave		129305.25 1			3.6		20.0				
4-Nitrotoluene	124900 107484 109658	120650 107433	112620 108510	113600 110337	Ave		112799.05 6			5.4		20.0				
3-Nitrotoluene	171300 135808 139988	153300 136093	141480 137194	142070 139336	Ave		144063.24 3			8.0		20.0				

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 649950

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

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	78070 70756 71221	70870 70722	70432 70837	72600 71924	Ave		71936.969 0			3.3		20.0				
1,2-Dinitrobenzene	144500 131148 132647	130150 132498	130420 132159	134500 134411	Lin2	93.780984 2	131630.76 1						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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-190903-1 Analy Batch No.: 649950

SDG No.: _____

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
TNX	Ave	2051 78789	4023 141333	9628 199537	20006 509682	49234	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	919 38101	2017 67408	4536 97787	9645 240762	23583	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1516 58701	2843 103834	7258 146952	14834 378026	36872	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Ave	1649 64510	2991 113678	7887 160428	15807 410302	39930	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Ave	1187 42747	2334 74871	5612 108752	11162 269224	26844	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	787 31644	1524 55934	3847 81861	8016 205156	19748	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2549 86362	4349 151045	11258 219723	22129 547952	54073	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	3086 119137	5678 209122	15023 303550	30359 753680	74190	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1985 77471	3932 136899	9759 198305	20035 495535	47641	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	1971 86047	4171 153531	10781 219396	22651 557874	54841	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1835 74126	3374 127375	9010 188801	18238 457763	45082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6048 266924	11963 467214	35657 679445	71367 1669606	167486	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2081 85495	4400 150301	10669 217516	21912 539471	53593	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1406 59155	3261 103016	7533 149965	15344 373596	36831	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1951	3997	9923	20033	49951	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.: 280-190903-1 Analy Batch No.: 649950
 SDG No.: _____
 Instrument ID: CHHPLC_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

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
		78856	140054	202927	511483		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1557 58947	2880 100540	7267 146021	15218 360585	35939	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2993 115355	5793 202952	14425 294790	29452 730644	72314	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Ave	1340 50092	2777 88069	6526 127758	12977 319286	31023	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1249 42973	2413 75957	5631 110337	11360 274145	26871	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	1713 54437	3066 96036	7074 139336	14207 349971	33952	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7807 282889	14174 495856	35216 719241	72600 1780535	176891	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin2	1445 52999	2603 92511	6521 134411	13450 331618	32787	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\20240417-132364.b\04170011.D
 Lims ID: IC INT/DMT 9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 17-Apr-2024 20:37:59 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:21 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:12:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.469	6.476	-0.007	509682	2.51	2.56	M
4 HMX	1	6.575	6.583	-0.008	240762	2.50	2.52	M
6 DNX	1	6.782	6.789	-0.007	378026	2.51	2.57	M
7 MNX	1	7.195	7.203	-0.008	410302	2.92	3.00	
8 RDX	1	7.575	7.583	-0.008	269224	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.742	7.816	-0.074	205156	2.50	2.59	
\$ 10 1,2-Dinitrobenzene	1	8.509	8.516	-0.007	331618	2.50	2.52	
11 1,3,5-Trinitrobenzene	1	8.649	8.656	-0.007	547952	2.50	2.46	
12 1,3-Dinitrobenzene	1	9.262	9.276	-0.014	753680	2.50	2.52	
13 Nitrobenzene	1	9.622	9.636	-0.014	495535	2.50	2.52	
14 3,5-Dinitroaniline	1	9.855	9.876	-0.021	557874	2.50	2.53	
15 Tetryl	1	9.948	9.963	-0.015	457763	2.50	2.52	
16 Nitroglycerin	2	10.415	10.429	-0.014	1669606	25.0	25.1	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	539471	2.50	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.035	11.049	-0.014	373596	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	11.288	11.309	-0.021	511483	2.50	2.56	
20 2,6-Dinitrotoluene	1	11.442	11.449	-0.007	360585	2.50	2.45	
21 2,4-Dinitrotoluene	1	11.615	11.629	-0.014	730644	2.50	2.50	
22 o-Nitrotoluene	1	12.408	12.423	-0.015	319286	2.50	2.47	
23 p-Nitrotoluene	1	12.835	12.843	-0.008	274145	2.50	2.43	
24 m-Nitrotoluene	1	13.388	13.403	-0.015	349971	2.50	2.43	
25 PETN	2	14.482	14.483	-0.001	1780535	25.0	24.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 250.00

Units: uL

8330 DMT_00016

Amount Added: 125.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d

Injection Date: 17-Apr-2024 20:37:59

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

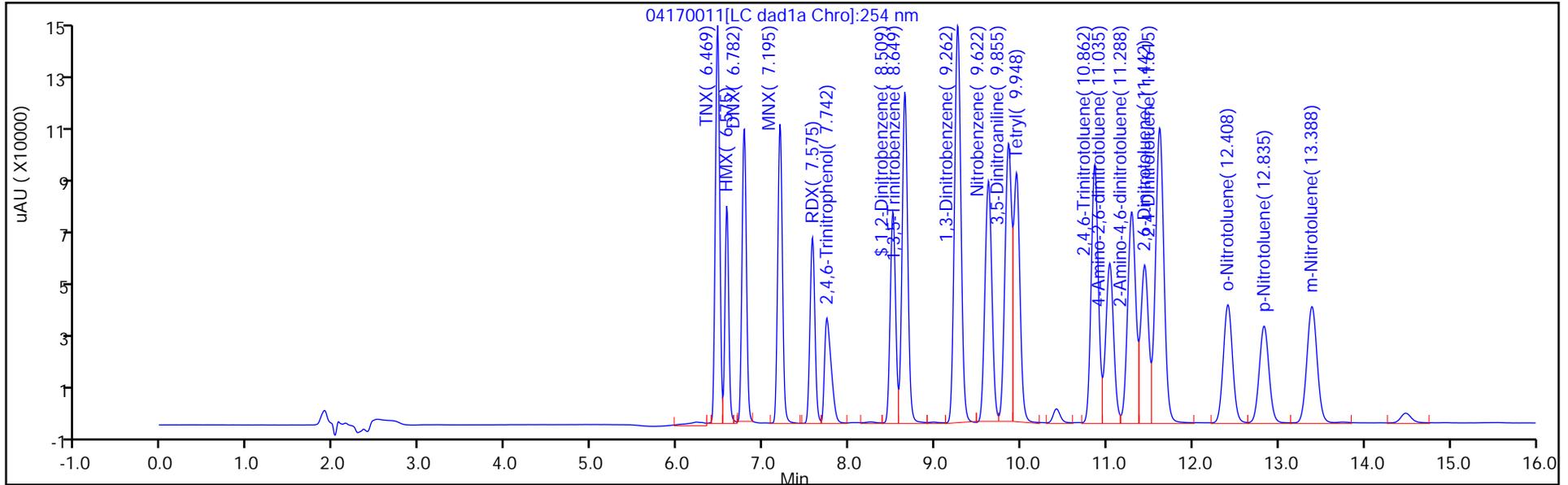
ALS Bottle#: 11

Method: 8330_X3

Limit Group: GCSV - 8330

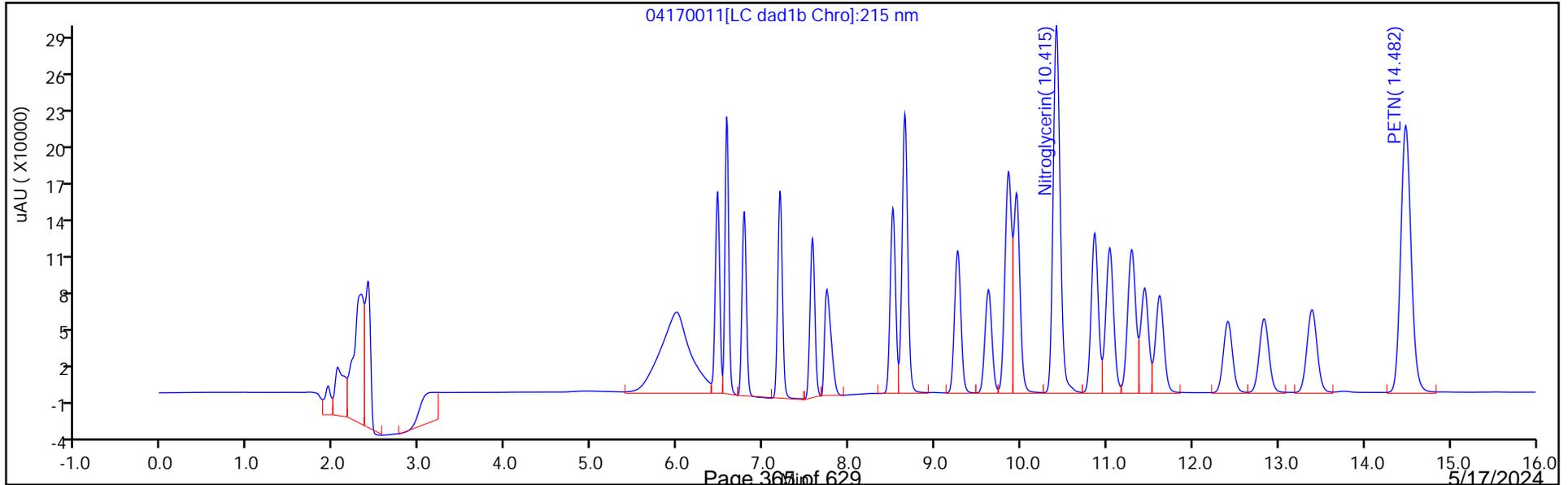
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

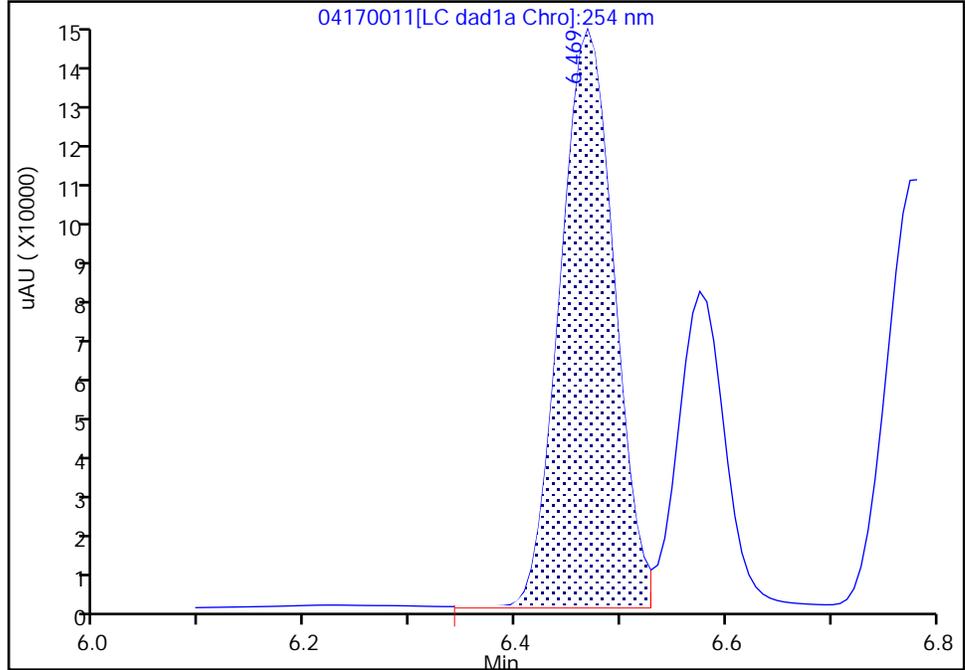
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

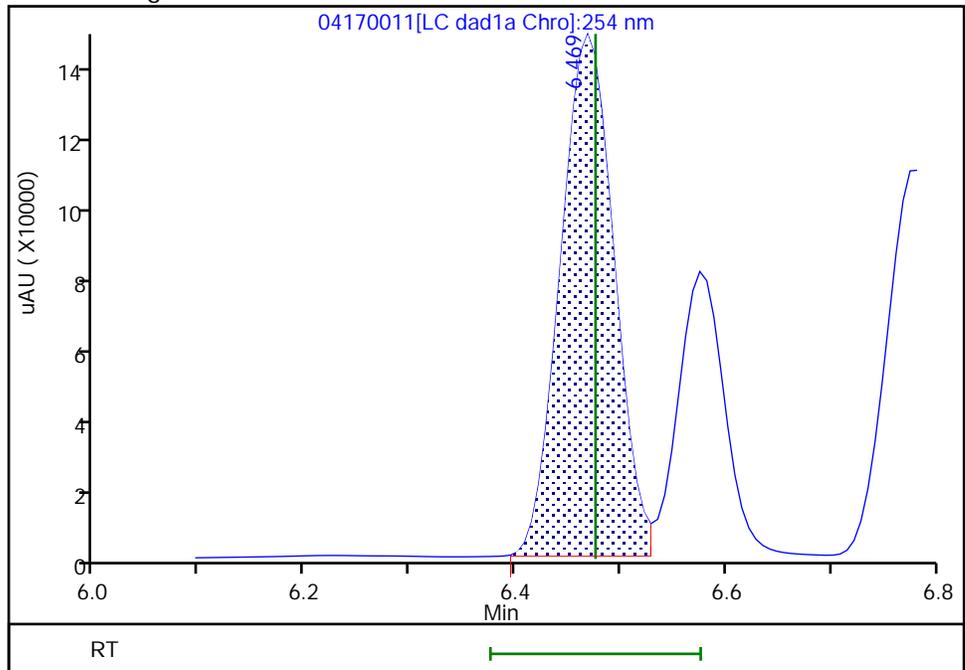
RT: 6.47
Area: 515297
Amount: 2.475720
Amount Units: ug/mL

Processing Integration Results



RT: 6.47
Area: 509682
Amount: 2.561318
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

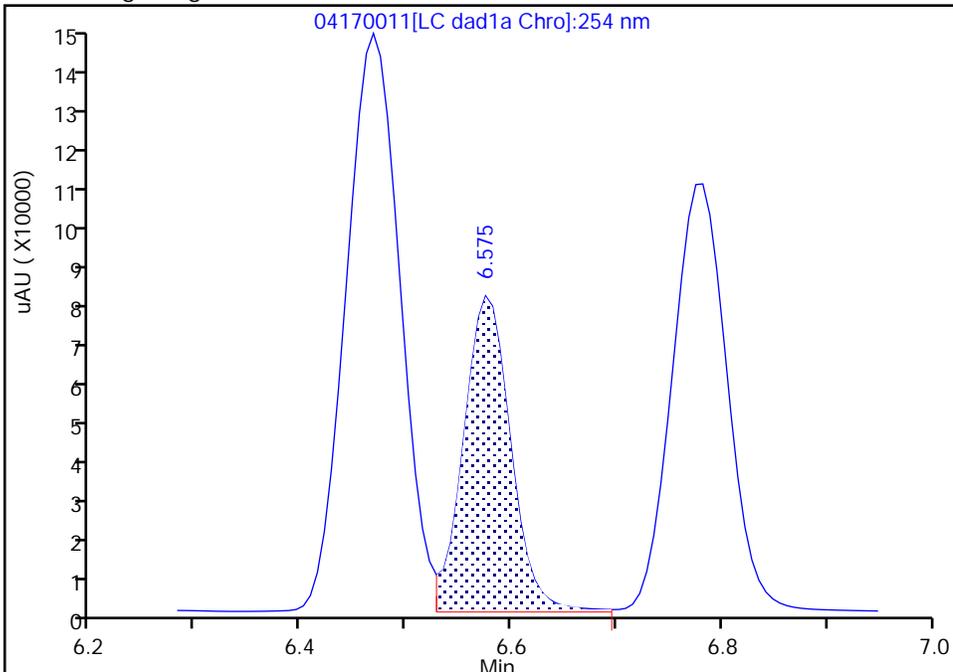
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d
 Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC_X3
 Lims ID: IC INT/DMT 9
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: 8330_X3 Limit Group: GCSV - 8330
 Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

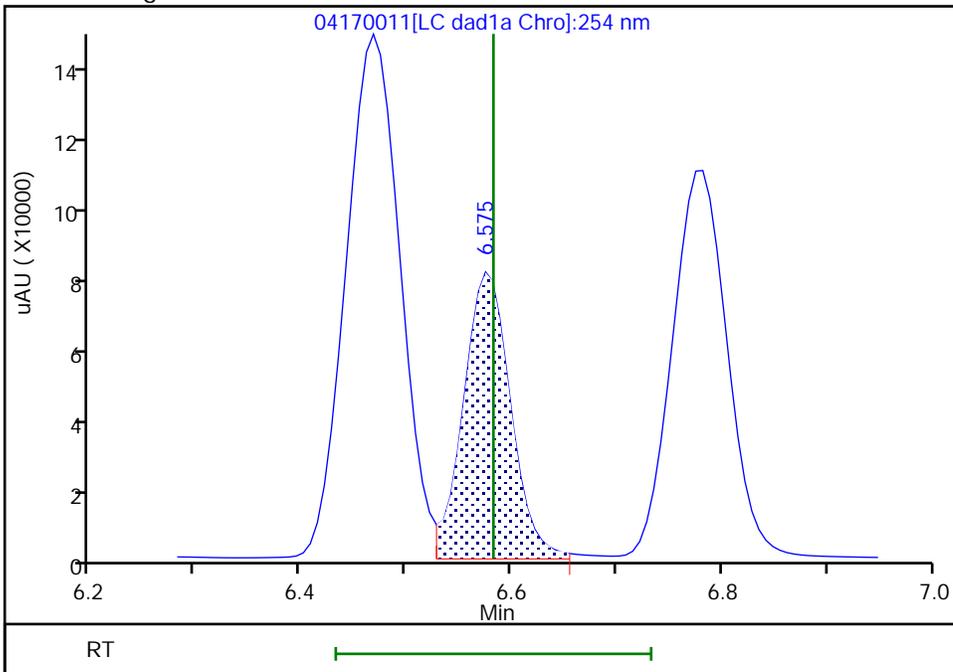
RT: 6.58
 Area: 245562
 Amount: 2.343167
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58
 Area: 240762
 Amount: 2.519915
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

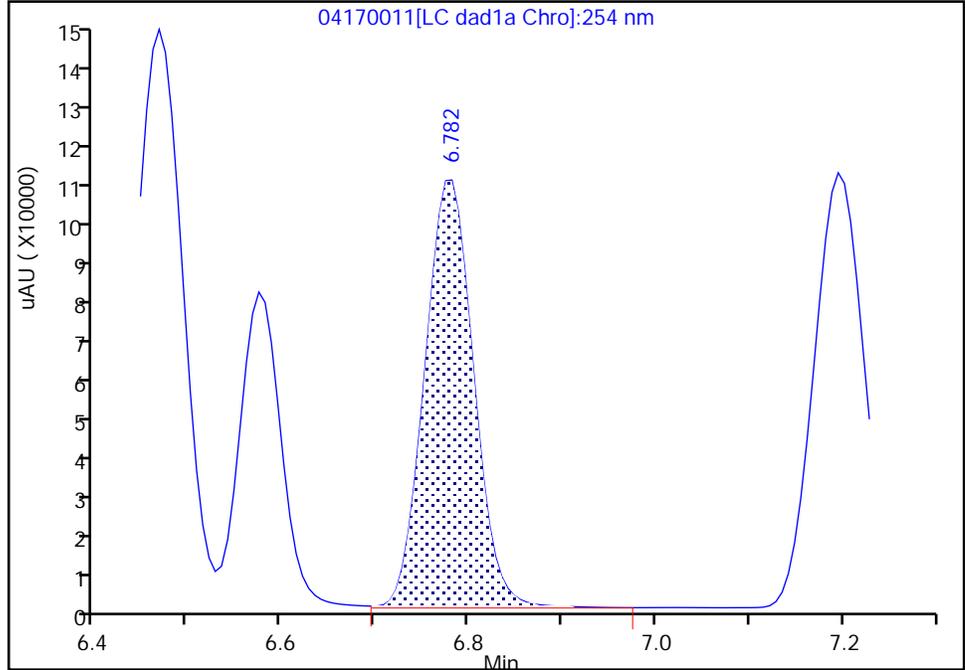
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

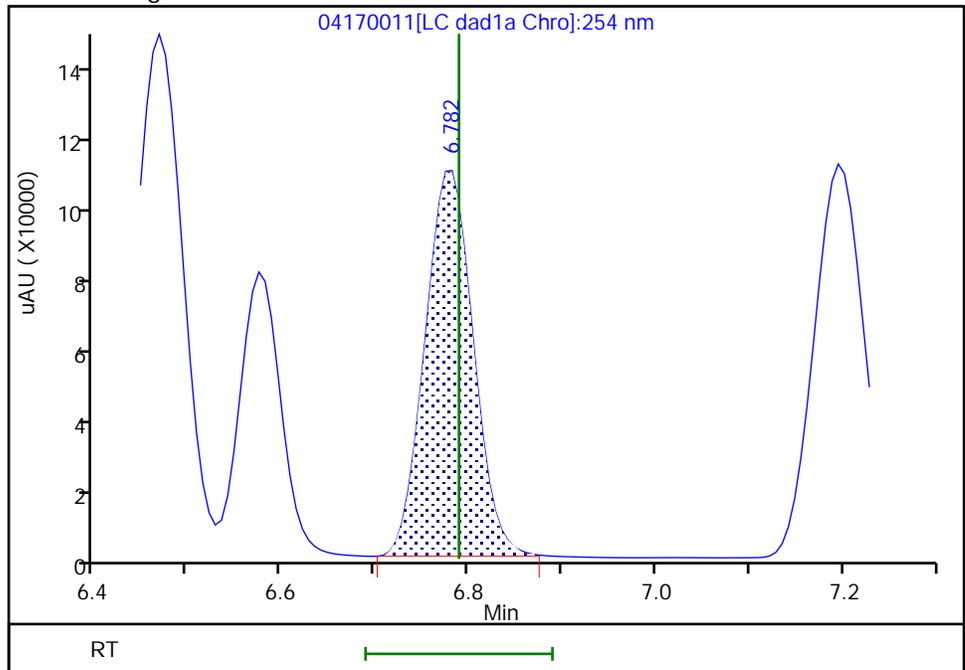
RT: 6.78
Area: 388355
Amount: 2.530843
Amount Units: ug/mL

Processing Integration Results



RT: 6.78
Area: 378026
Amount: 2.567072
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170012.D
 Lims ID: IC INT/DMT 8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 17-Apr-2024 21:00:56 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:23 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:13:14

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	6.476	-0.002	199537	1.00	1.00	M
4 HMX	1	6.581	6.583	-0.002	97787	1.00	1.02	M
6 DNx	1	6.788	6.789	-0.001	146952	1.00	1.00	M
7 MNx	1	7.208	7.203	0.005	160428	1.17	1.17	
8 RDX	1	7.581	7.583	-0.002	108752	1.00	0.9818	
9 2,4,6-Trinitrophenol	1	7.781	7.816	-0.035	81861	1.00	1.03	
\$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	134411	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.654	8.656	-0.002	219723	1.00	0.9860	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	303550	1.00	1.01	
13 Nitrobenzene	1	9.634	9.636	-0.002	198305	1.00	1.01	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	219396	1.00	0.99	
15 Tetryl	1	9.954	9.963	-0.009	188801	1.00	1.04	
16 Nitroglycerin	2	10.421	10.429	-0.008	679445	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.868	10.869	-0.001	217516	1.00	1.01	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	149965	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	202927	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	146021	1.00	0.99	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	294790	1.00	1.01	
22 o-Nitrotoluene	1	12.421	12.423	-0.002	127758	1.00	0.9880	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	110337	1.00	0.9782	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	139336	1.00	0.9672	
25 PETN	2	14.481	14.483	-0.002	719241	10.0	10.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT_00016

Amount Added: 50.00

Units: uL

8330IntermStk_00080

Amount Added: 100.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d

Injection Date: 17-Apr-2024 21:00:56

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

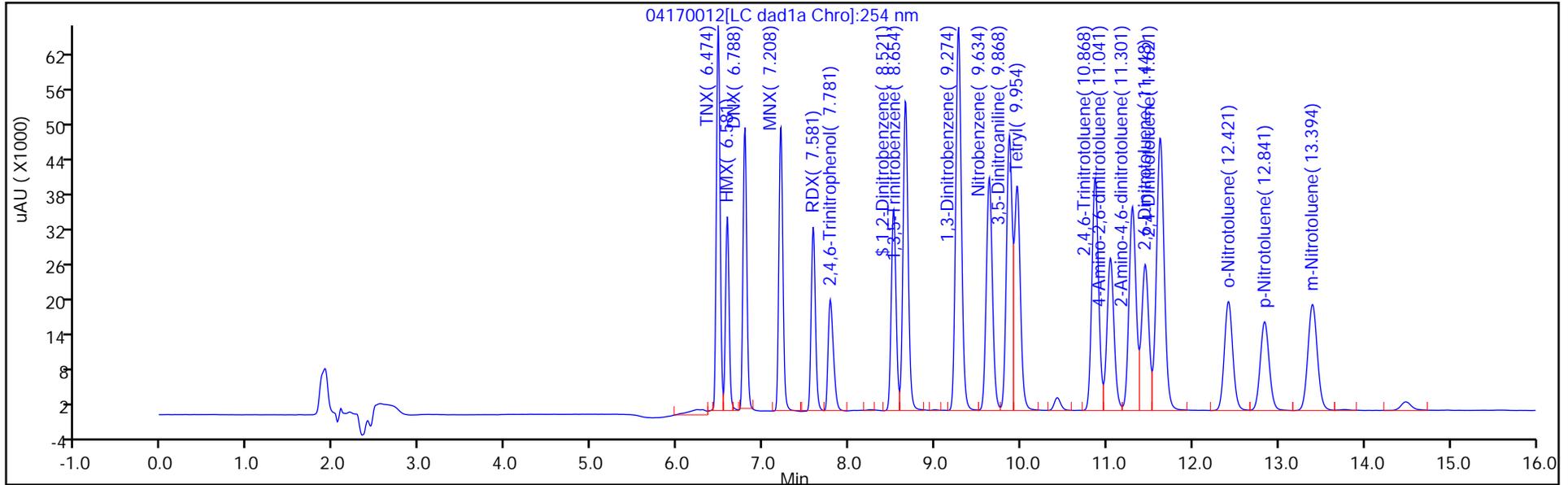
ALS Bottle#: 12

Method: 8330_X3

Limit Group: GCSV - 8330

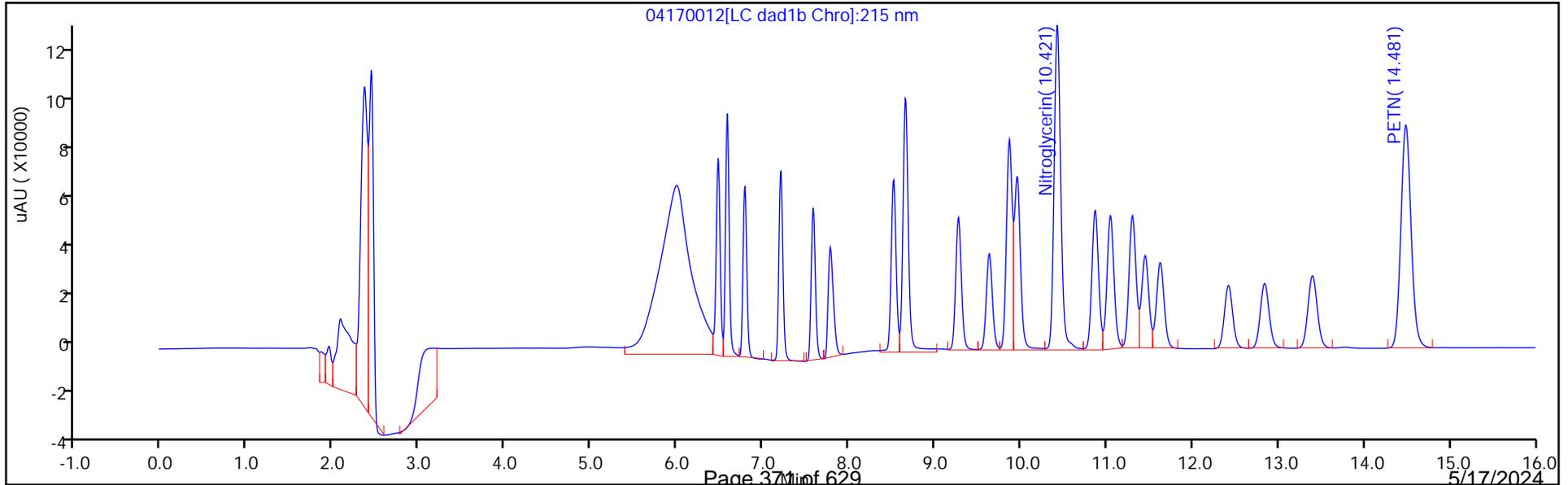
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

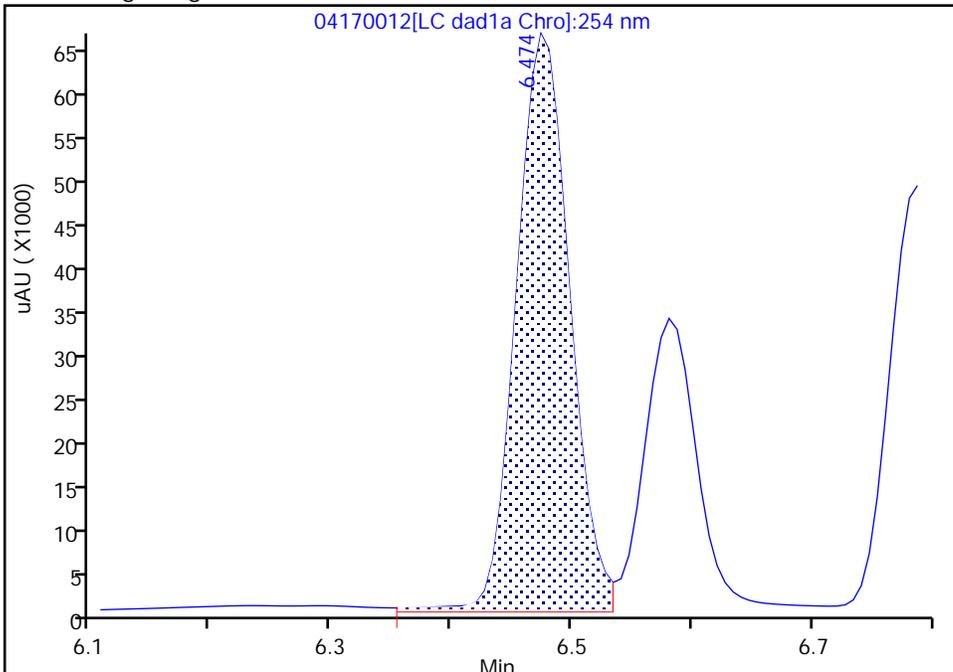
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

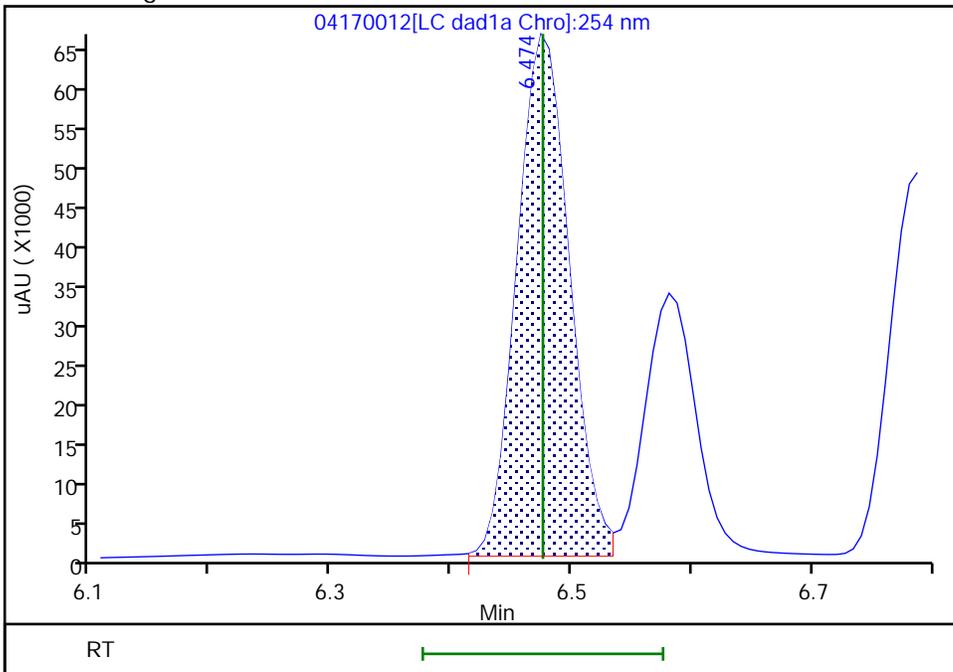
RT: 6.47
Area: 204461
Amount: 0.979758
Amount Units: ug/mL

Processing Integration Results



RT: 6.47
Area: 199537
Amount: 1.002738
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:07 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

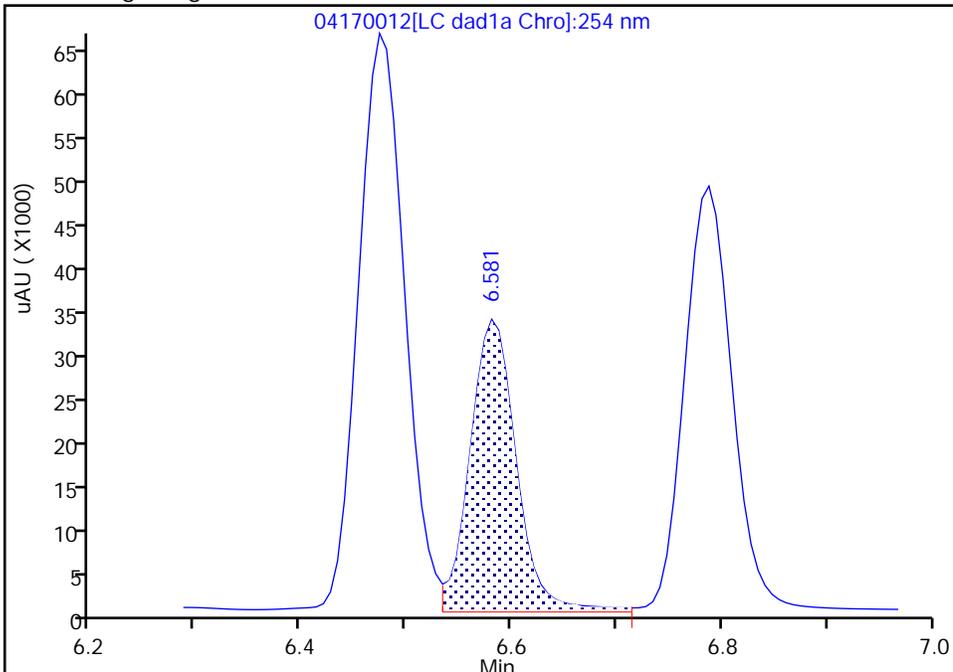
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d		
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 8		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	12 Worklist Smp#: 12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

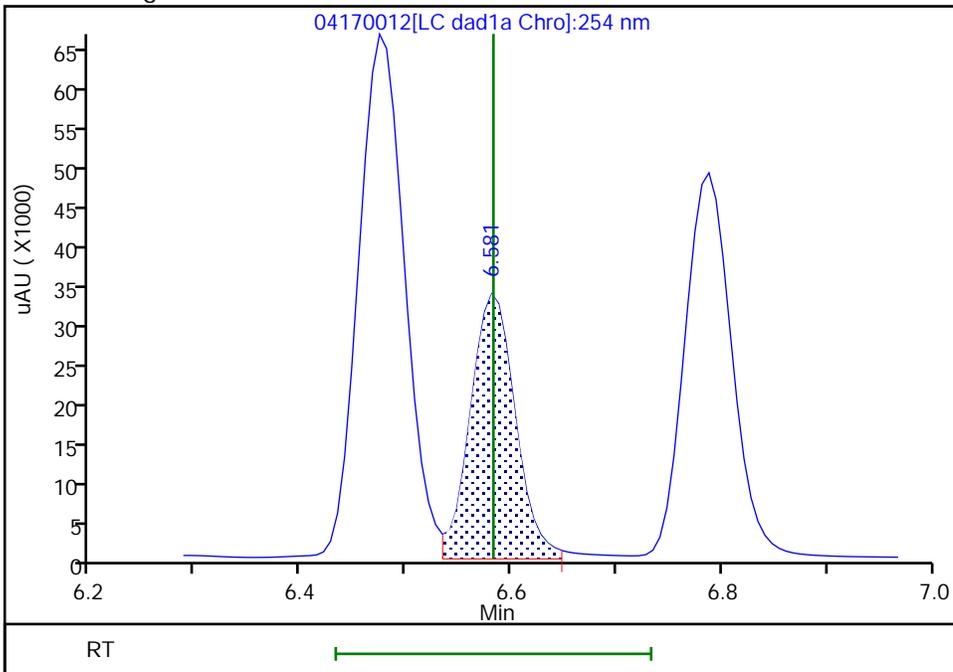
RT: 6.58
 Area: 102131
 Amount: 0.970072
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58
 Area: 97787
 Amount: 1.023479
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

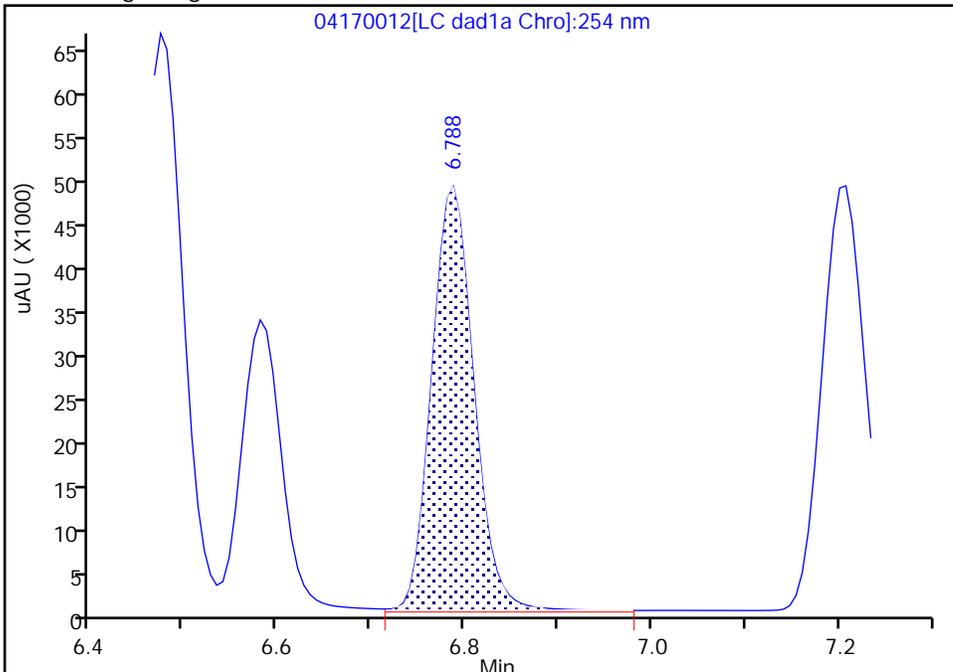
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d		
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 8		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	12 Worklist Smp#: 12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

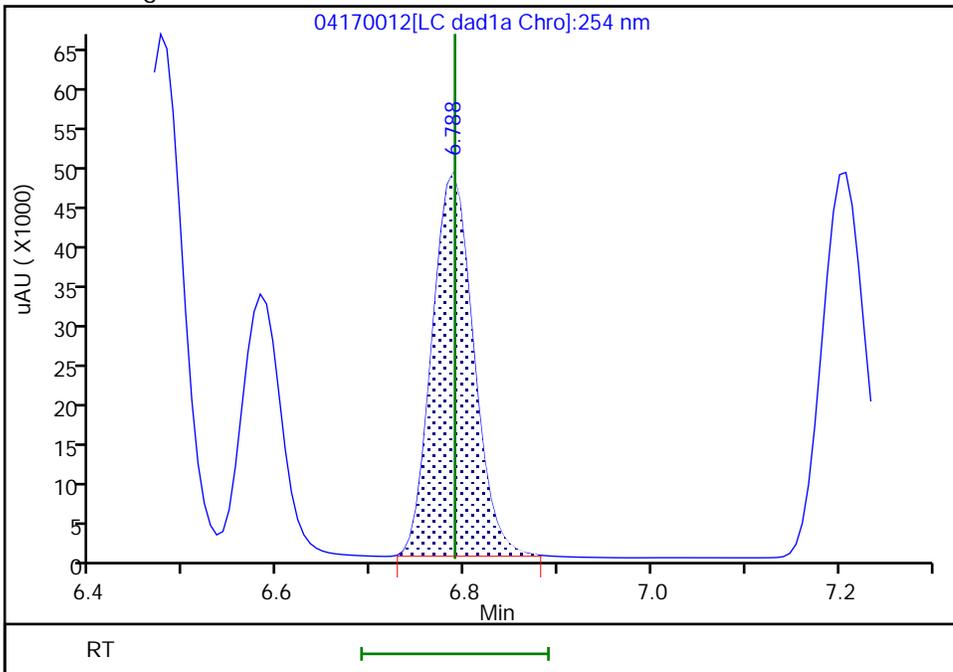
RT: 6.79
 Area: 153377
 Amount: 0.990791
 Amount Units: ug/mL

Processing Integration Results



RT: 6.79
 Area: 146952
 Amount: 0.997911
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:11 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170013.D
 Lims ID: IC INT/DMT 7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 17-Apr-2024 21:23:54 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:24 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D

Date: 18-Apr-2024 11:14:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	141333	0.7028	0.7102	M
4 HMX	1	6.582	6.583	-0.001	67408	0.7000	0.7055	M
6 DNX	1	6.789	6.789	0.000	103834	0.7014	0.7051	M
7 MNX	1	7.202	7.203	-0.001	113678	0.8183	0.8316	
8 RDX	1	7.582	7.583	-0.001	74871	0.7000	0.6759	
9 2,4,6-Trinitrophenol	1	7.789	7.816	-0.027	55934	0.7000	0.7051	
\$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	92511	0.7000	0.7021	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	151045	0.7000	0.6778	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	209122	0.7000	0.6984	
13 Nitrobenzene	1	9.629	9.636	-0.007	136899	0.7000	0.6973	
14 3,5-Dinitroaniline	1	9.869	9.876	-0.007	153531	0.7000	0.6958	
15 Tetryl	1	9.956	9.963	-0.007	127375	0.7000	0.7014	
16 Nitroglycerin	2	10.422	10.429	-0.007	467214	7.00	7.03	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	150301	0.7000	0.6985	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	103016	0.7000	0.6870	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	140054	0.7000	0.7009	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	100540	0.7000	0.6843	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	202952	0.7000	0.6954	
22 o-Nitrotoluene	1	12.416	12.423	-0.007	88069	0.7000	0.6811	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	75957	0.7000	0.6734	
24 m-Nitrotoluene	1	13.396	13.403	-0.007	96036	0.7000	0.6666	
25 PETN	2	14.482	14.483	-0.001	495856	7.00	6.89	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT_00016

Amount Added: 35.00

Units: uL

8330IntermStk_00080

Amount Added: 70.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d

Injection Date: 17-Apr-2024 21:23:54

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

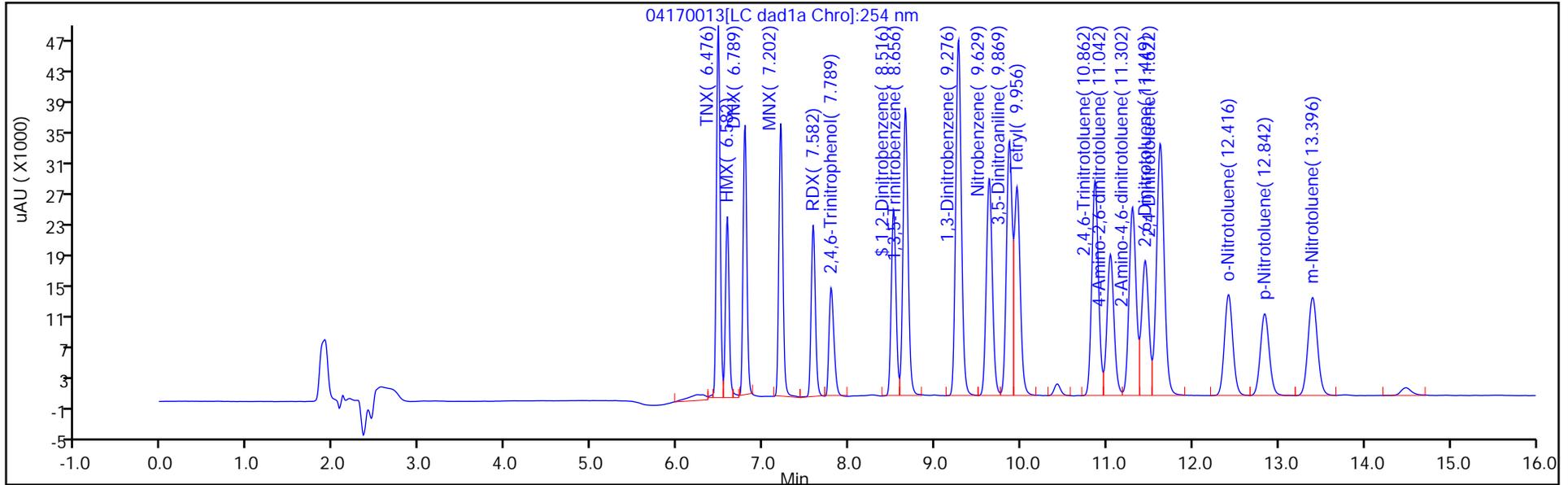
ALS Bottle#: 13

Method: 8330_X3

Limit Group: GCSV - 8330

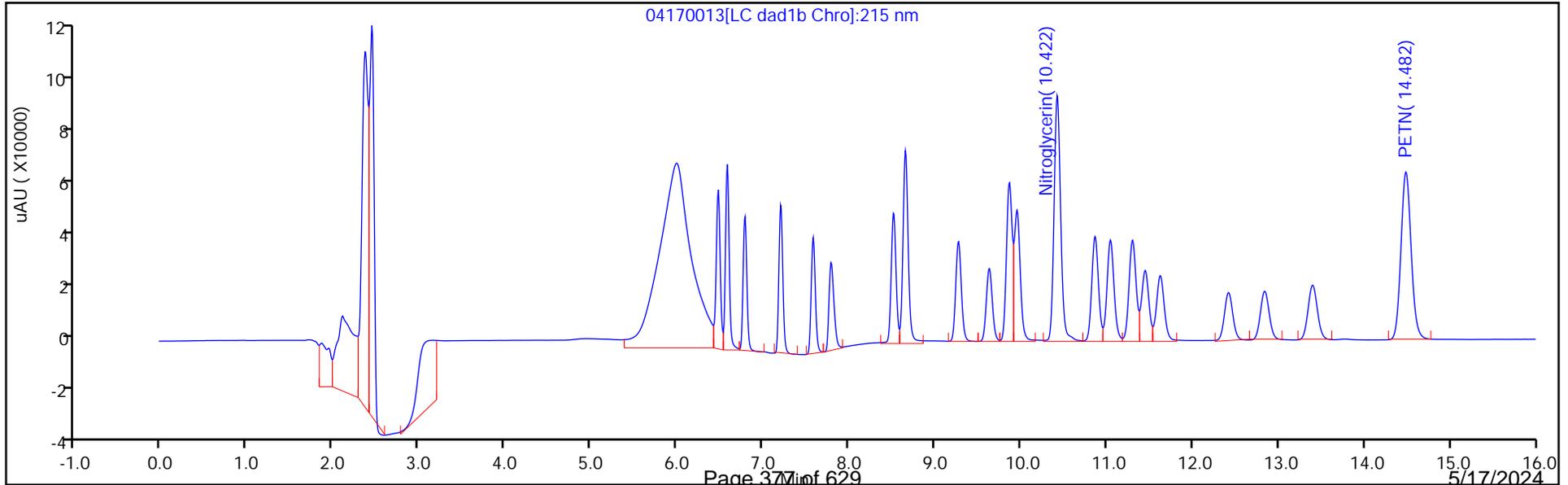
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

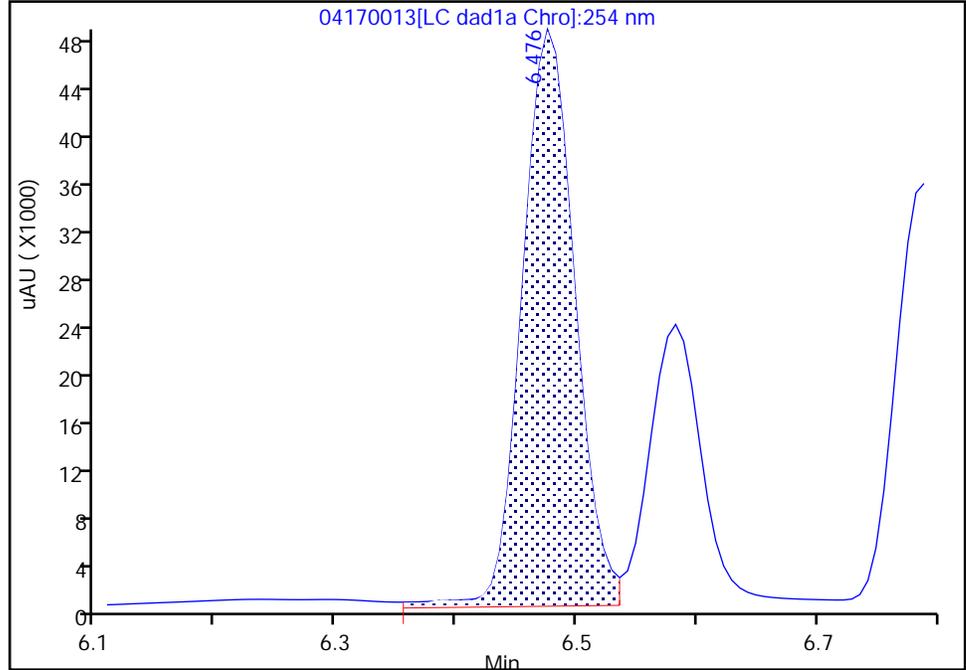
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

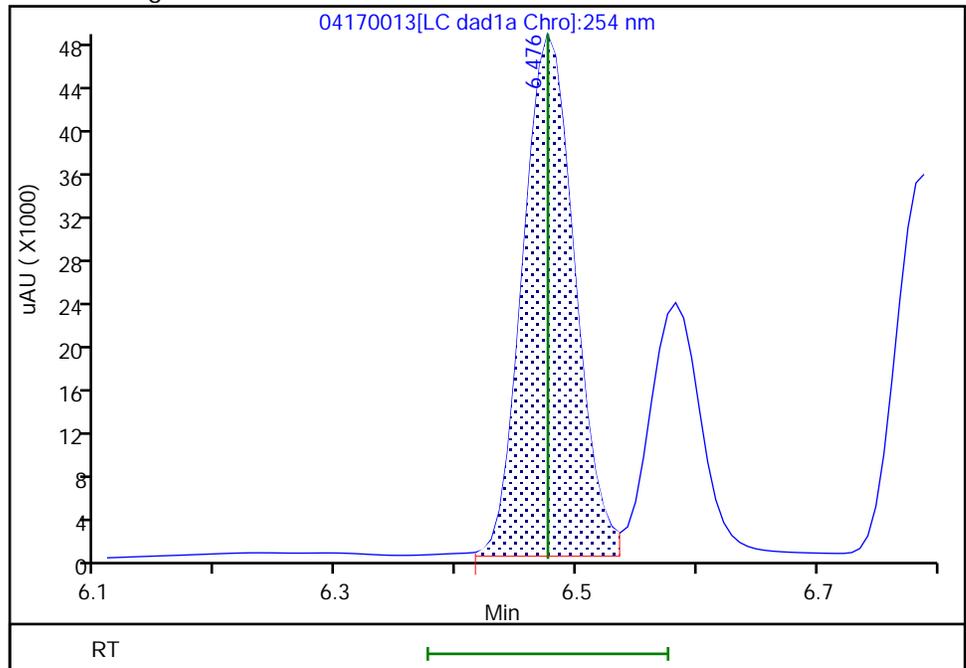
RT: 6.48
Area: 146464
Amount: 0.704521
Amount Units: ug/mL

Processing Integration Results



RT: 6.48
Area: 141333
Amount: 0.710244
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

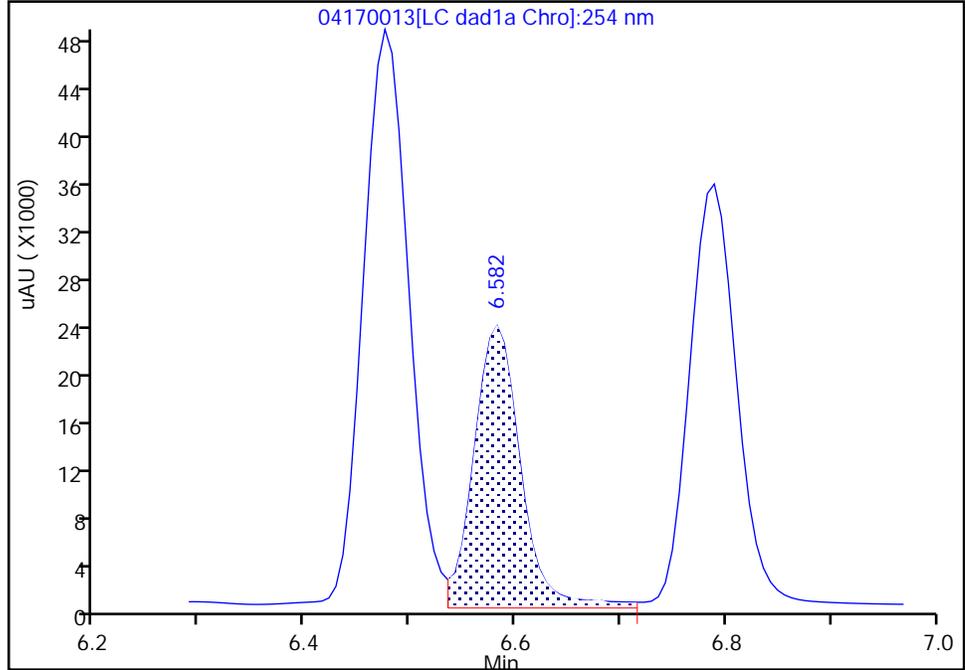
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

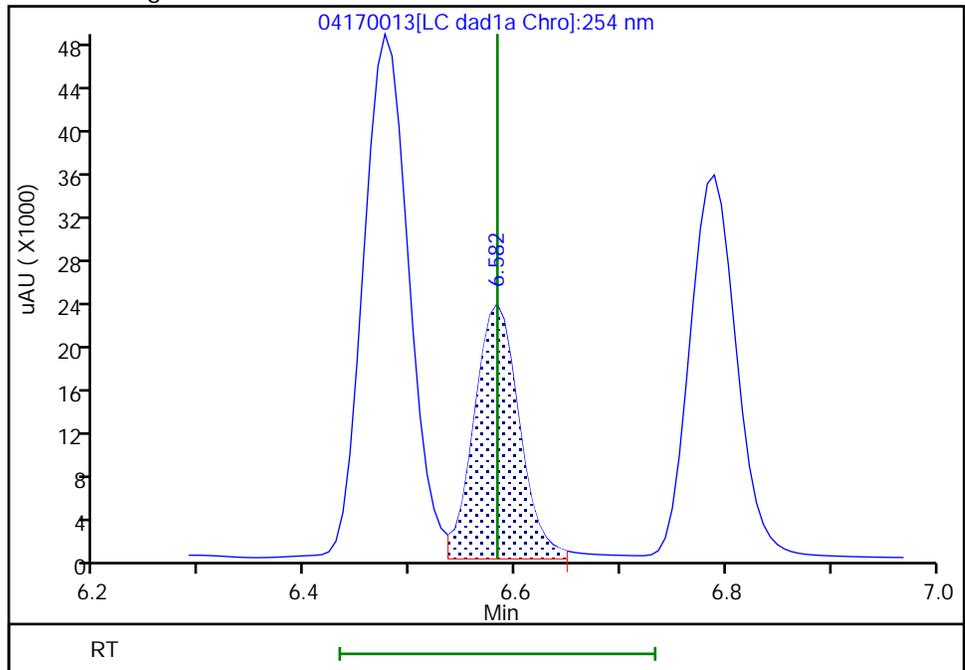
RT: 6.58
Area: 71695
Amount: 0.685513
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 67408
Amount: 0.705520
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:46 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

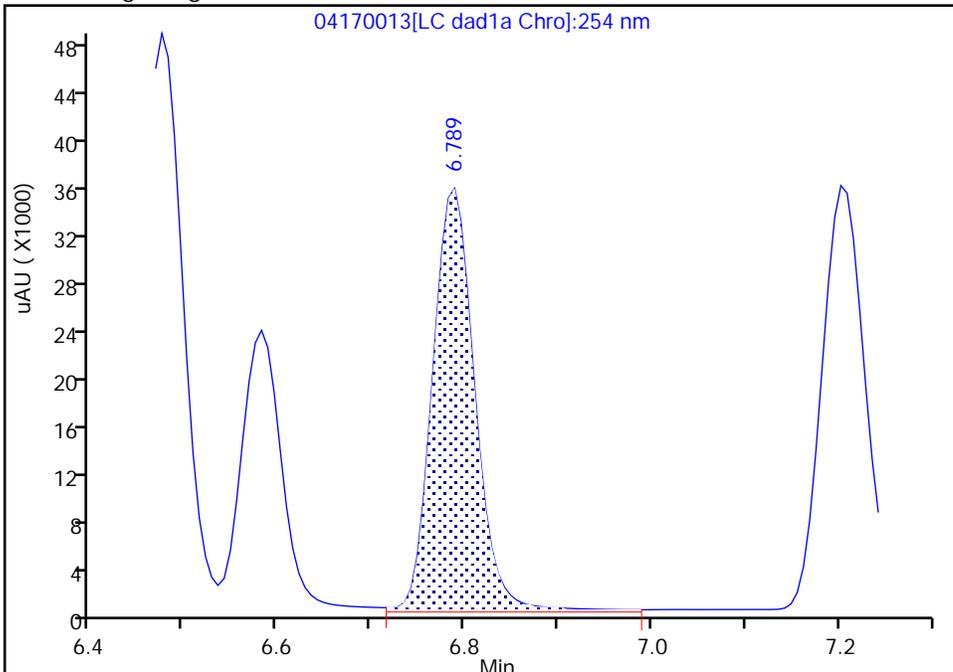
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

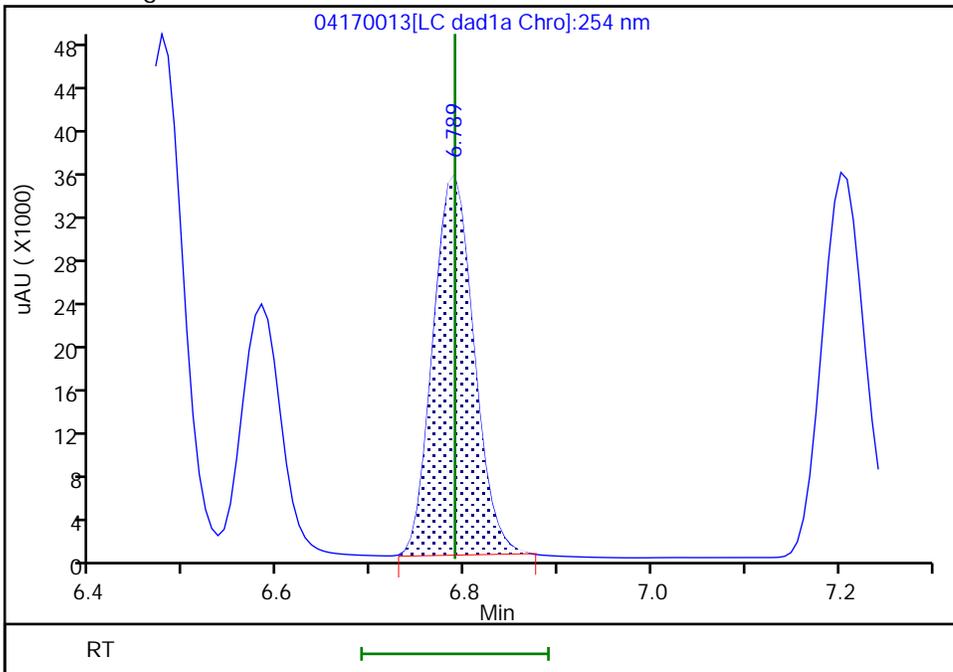
RT: 6.79
Area: 109725
Amount: 0.724468
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 103834
Amount: 0.705108
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:50 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170014.D
 Lims ID: IC INT/DMT 6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 17-Apr-2024 21:46:50 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:25 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.479	6.476	0.003	78789	0.4016	0.3959	M
4 HMX	1	6.586	6.583	0.003	38101	0.4000	0.3988	M
6 DNx	1	6.786	6.789	-0.003	58701	0.4008	0.3986	M
7 MNx	1	7.206	7.203	0.003	64510	0.4676	0.4719	
8 RDX	1	7.586	7.583	0.003	42747	0.4000	0.3859	
9 2,4,6-Trinitrophenol	1	7.806	7.816	-0.010	31644	0.4000	0.3989	
\$ 10 1,2-Dinitrobenzene	1	8.519	8.516	0.003	52999	0.4000	0.4019	
11 1,3,5-Trinitrobenzene	1	8.659	8.656	0.003	86362	0.4000	0.3875	
12 1,3-Dinitrobenzene	1	9.279	9.276	0.003	119137	0.4000	0.3979	
13 Nitrobenzene	1	9.639	9.636	0.003	77471	0.4000	0.3946	
14 3,5-Dinitroaniline	1	9.872	9.876	-0.004	86047	0.4000	0.3904	
15 Tetryl	1	9.959	9.963	-0.004	74126	0.4000	0.4082	
16 Nitroglycerin	2	10.432	10.429	0.003	266924	4.00	4.02	
17 2,4,6-Trinitrotoluene	1	10.872	10.869	0.003	85495	0.4000	0.3973	
18 4-Amino-2,6-dinitrotoluene	1	11.052	11.049	0.003	59155	0.4000	0.3945	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	78856	0.4000	0.3947	
20 2,6-Dinitrotoluene	1	11.452	11.449	0.003	58947	0.4000	0.4012	
21 2,4-Dinitrotoluene	1	11.632	11.629	0.003	115355	0.4000	0.3953	
22 o-Nitrotoluene	1	12.426	12.423	0.003	50092	0.4000	0.3874	
23 p-Nitrotoluene	1	12.846	12.843	0.003	42973	0.4000	0.3810	
24 m-Nitrotoluene	1	13.406	13.403	0.003	54437	0.4000	0.3779	
25 PETN	2	14.492	14.483	0.009	282889	4.00	3.93	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 40.00

Units: uL

8330 DMT_00016

Amount Added: 20.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d

Injection Date: 17-Apr-2024 21:46:50

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

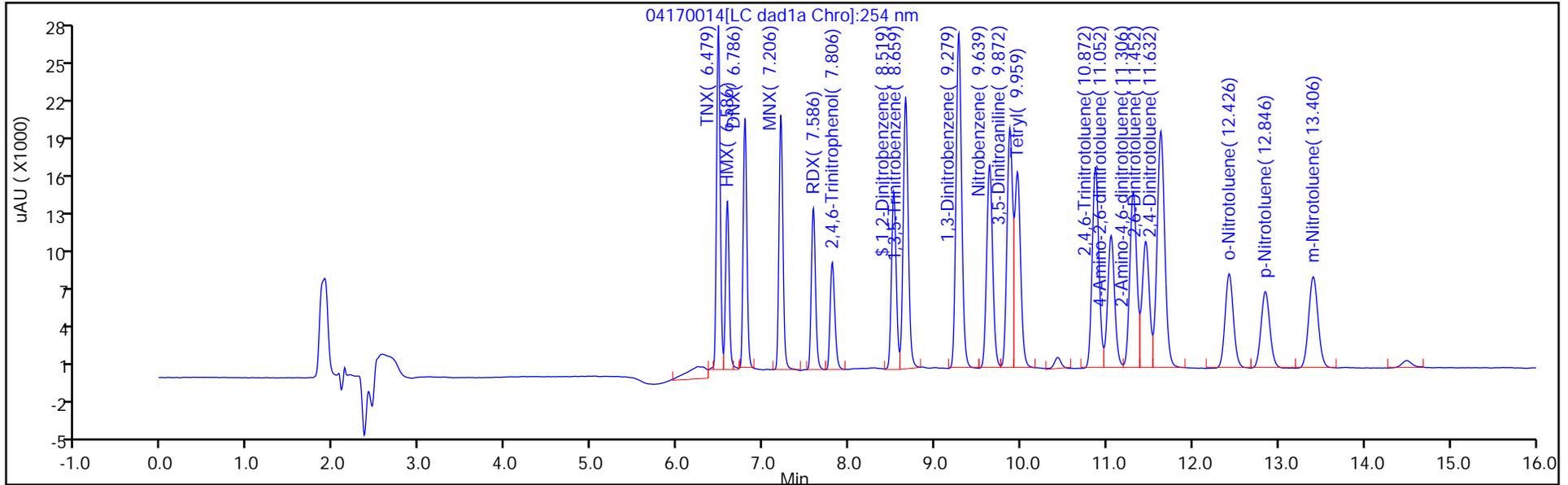
ALS Bottle#: 14

Method: 8330_X3

Limit Group: GCSV - 8330

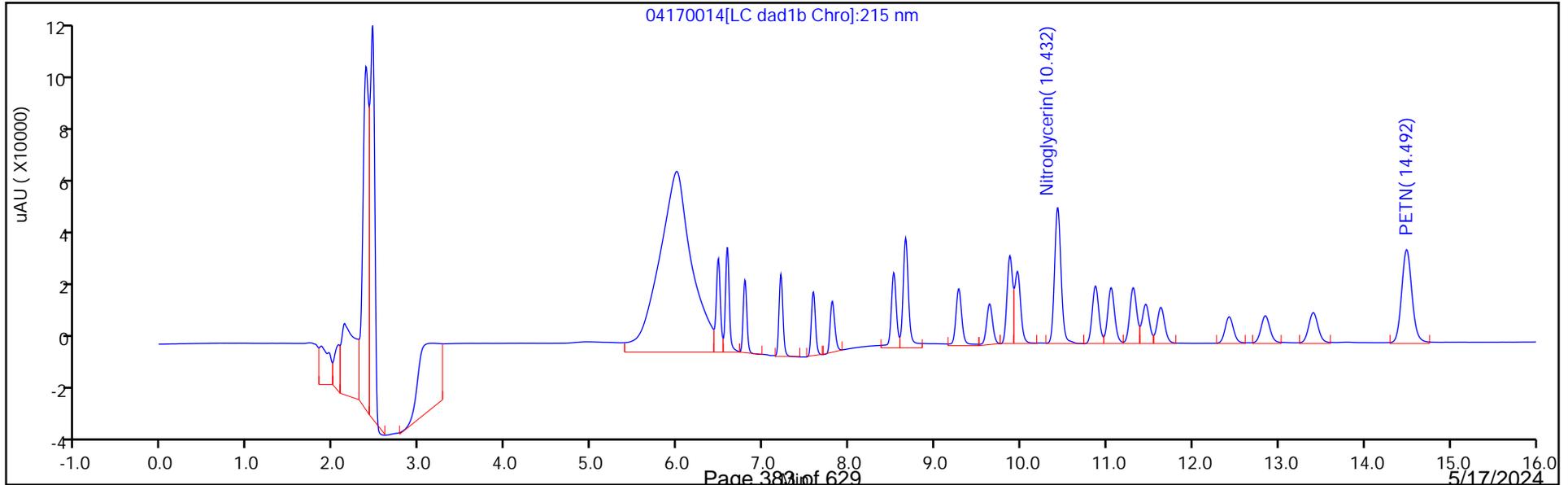
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

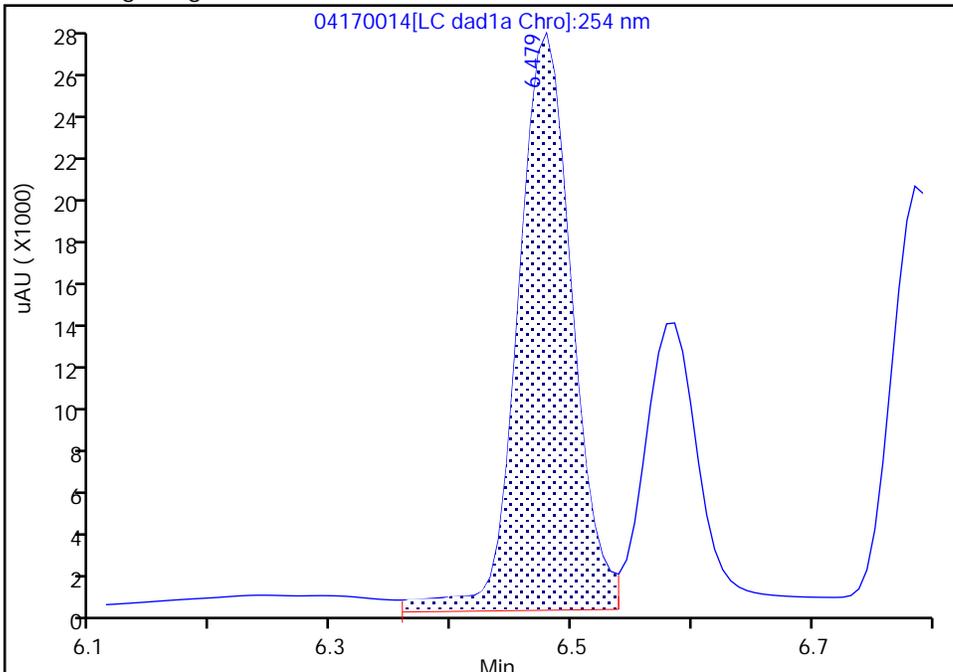
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d		
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 6		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm
		Worklist Smp#:	14

3 TNX, CAS: 13980-04-6

Signal: 1

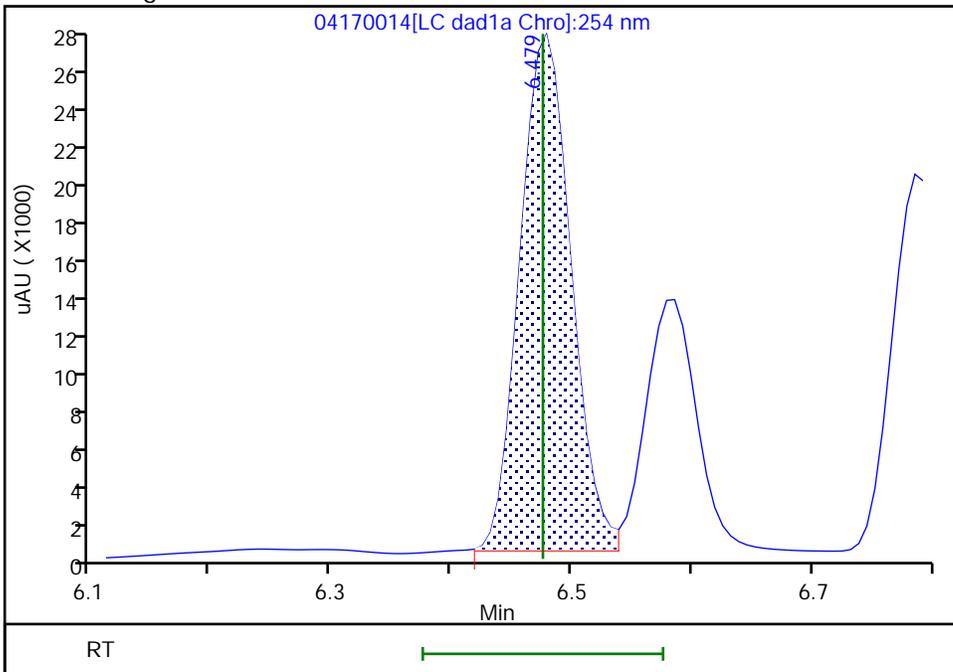
RT: 6.48
 Area: 85027
 Amount: 0.410599
 Amount Units: ug/mL

Processing Integration Results



RT: 6.48
 Area: 78789
 Amount: 0.395940
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

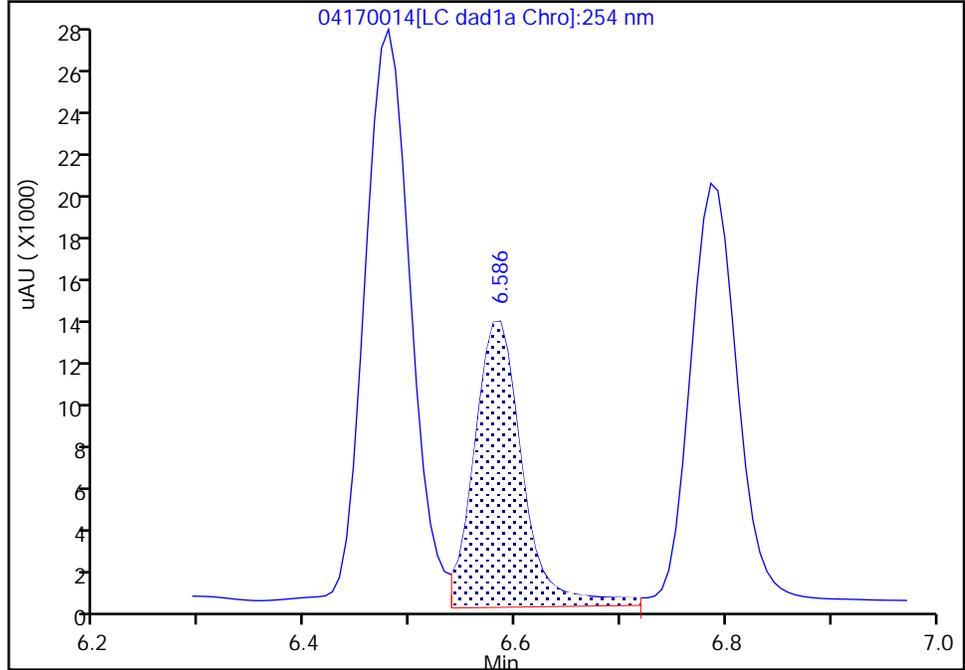
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

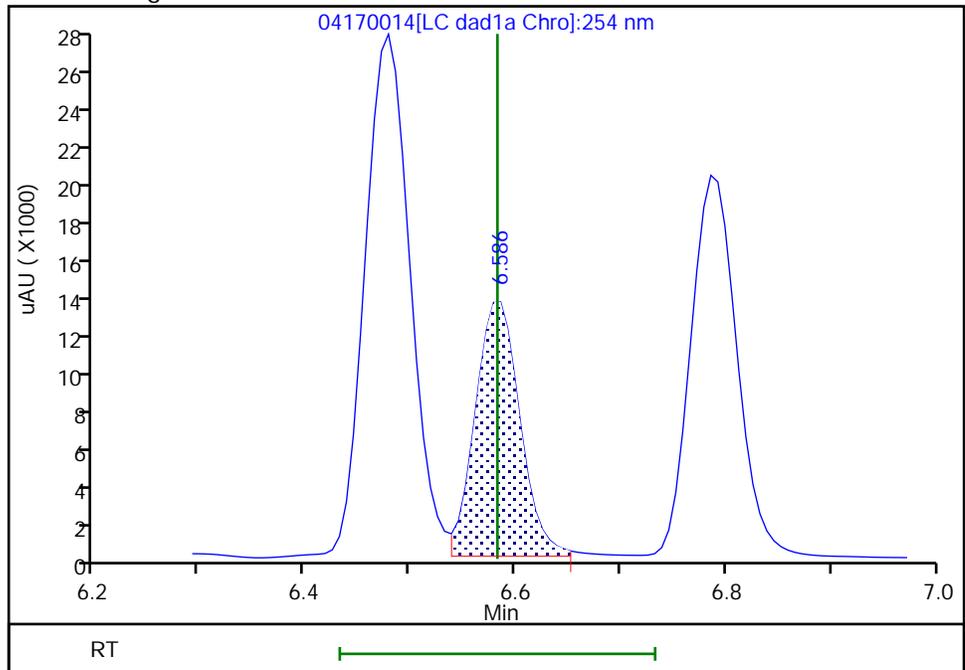
RT: 6.59
Area: 42787
Amount: 0.411788
Amount Units: ug/mL

Processing Integration Results



RT: 6.59
Area: 38101
Amount: 0.398781
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

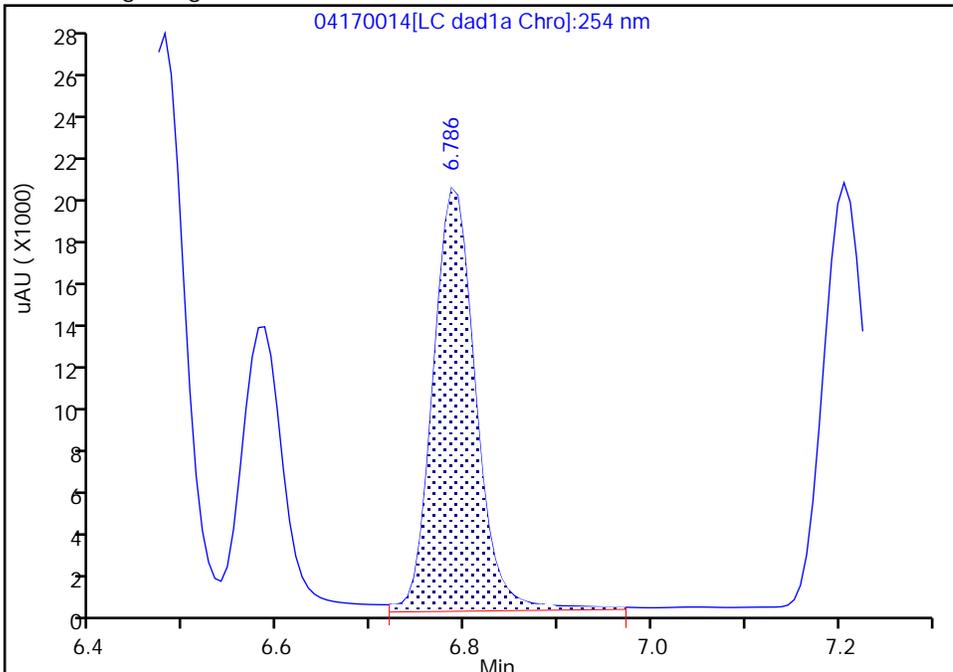
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

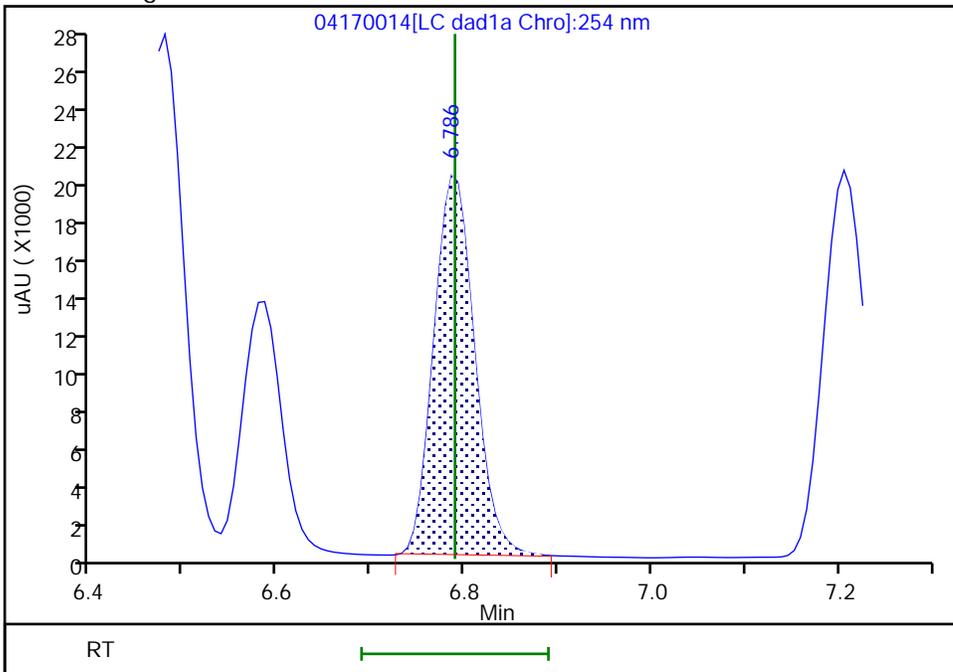
RT: 6.79
Area: 62648
Amount: 0.406964
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 58701
Amount: 0.398623
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:58 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170015.D
 Lims ID: IC INT/DMT 5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 17-Apr-2024 22:09:45 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:26 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	49234	0.2510	0.2474	M
4 HMX	1	6.582	6.583	-0.001	23583	0.2500	0.2468	M
6 DNx	1	6.789	6.789	0.000	36872	0.2505	0.2504	M
7 MNX	1	7.209	7.203	0.006	39930	0.2923	0.2921	
8 RDX	1	7.582	7.583	-0.001	26844	0.2500	0.2423	
9 2,4,6-Trinitrophenol	1	7.809	7.816	-0.007	19748	0.2500	0.2489	
\$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	32787	0.2500	0.2484	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	54073	0.2500	0.2426	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	74190	0.2500	0.2478	
13 Nitrobenzene	1	9.636	9.636	0.000	47641	0.2500	0.2427	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	54841	0.2500	0.2492	
15 Tetryl	1	9.962	9.963	-0.001	45082	0.2500	0.2483	
16 Nitroglycerin	2	10.429	10.429	0.000	167486	2.50	2.52	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	53593	0.2500	0.2490	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	36831	0.2500	0.2456	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	49951	0.2500	0.2500	
20 2,6-Dinitrotoluene	1	11.456	11.449	0.007	35939	0.2500	0.2446	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	72314	0.2500	0.2478	
22 o-Nitrotoluene	1	12.422	12.423	-0.001	31023	0.2500	0.2399	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	26871	0.2500	0.2382	
24 m-Nitrotoluene	1	13.402	13.403	-0.001	33952	0.2500	0.2357	M
25 PETN	2	14.489	14.483	0.006	176891	2.50	2.46	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

8330 DMT_00016

Amount Added: 12.50

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d

Injection Date: 17-Apr-2024 22:09:45

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

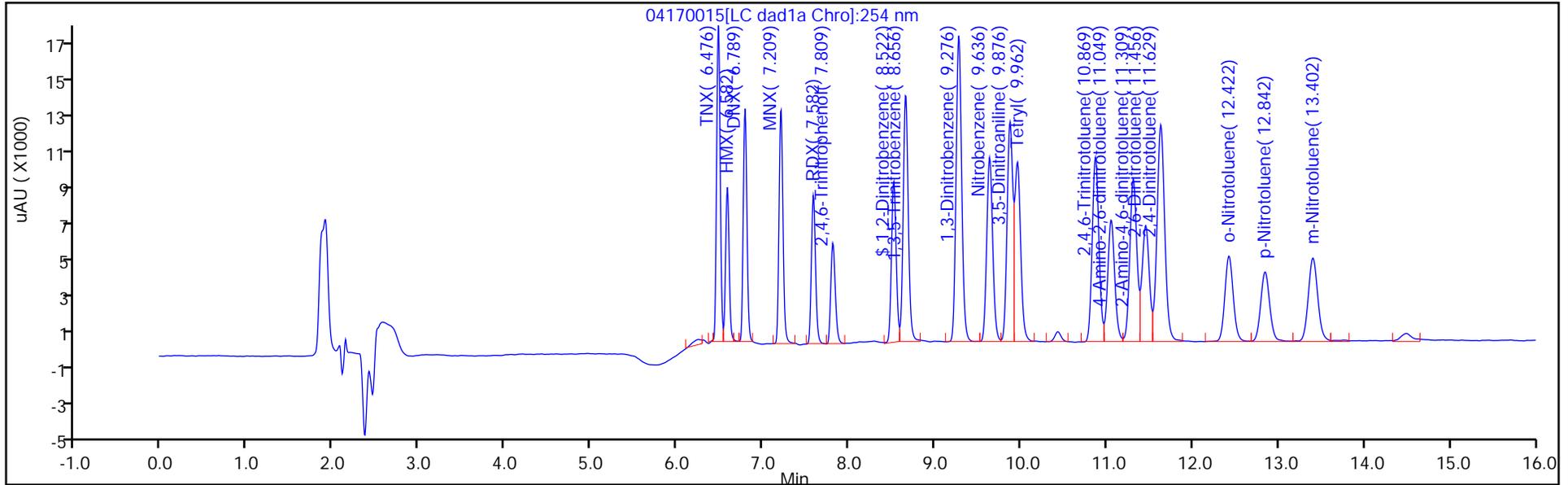
ALS Bottle#: 15

Method: 8330_X3

Limit Group: GCSV - 8330

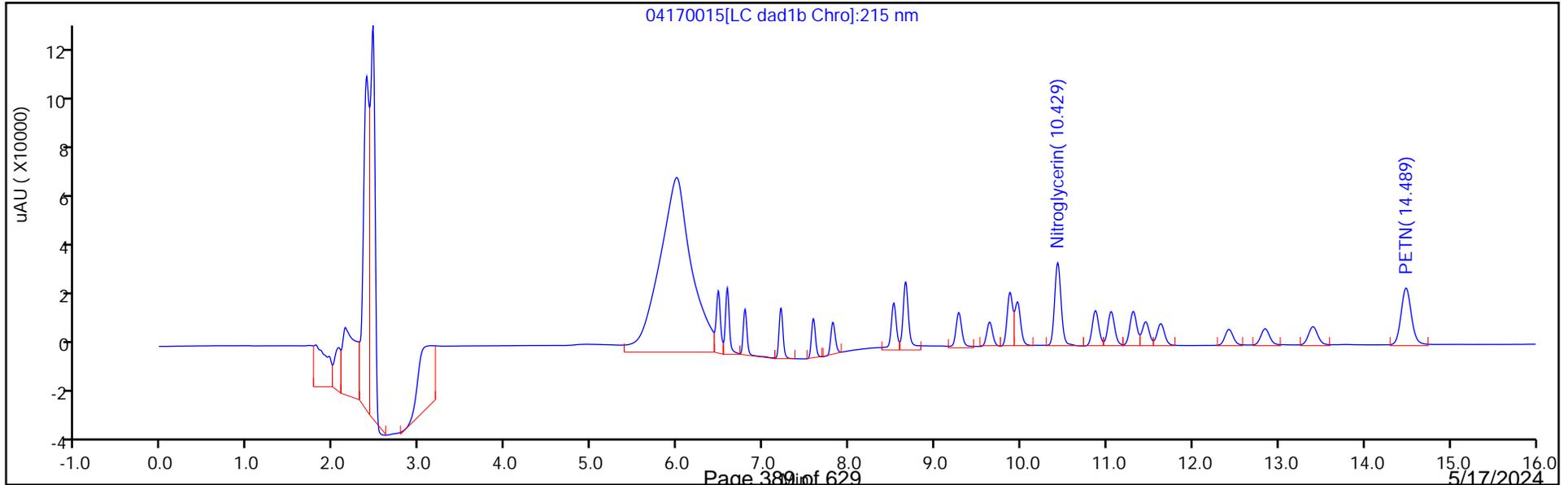
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

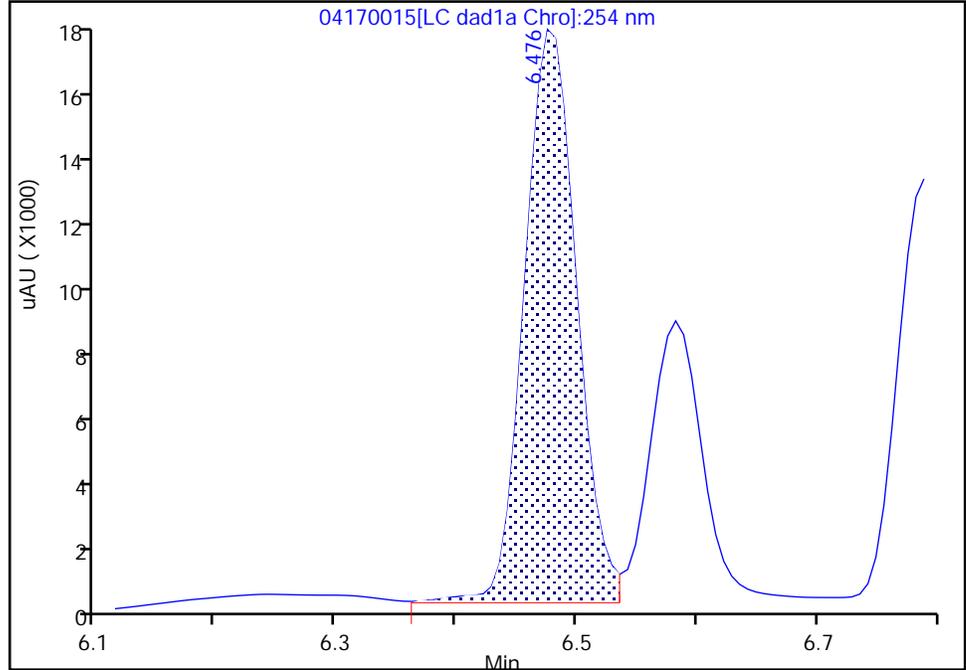
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d		
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 5		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

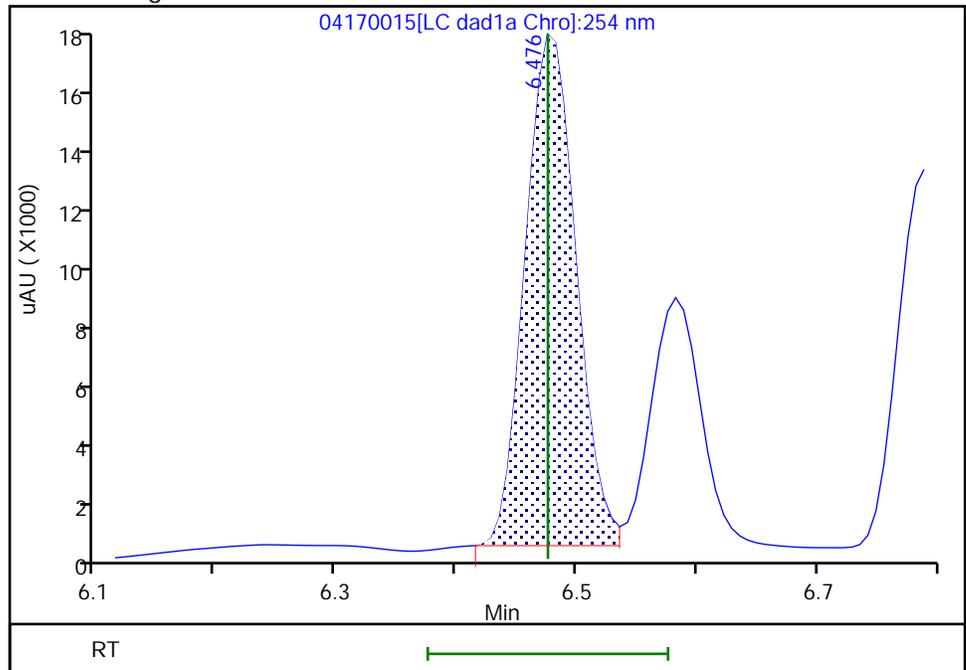
RT: 6.48
 Area: 50637
 Amount: 0.246583
 Amount Units: ug/mL

Processing Integration Results



RT: 6.48
 Area: 49234
 Amount: 0.247417
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:14 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

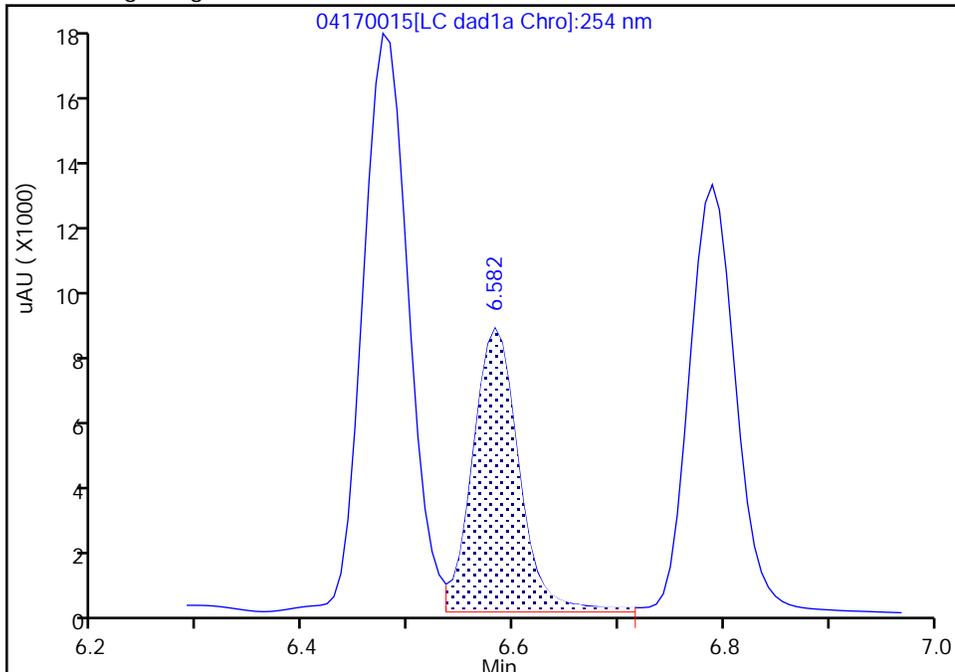
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

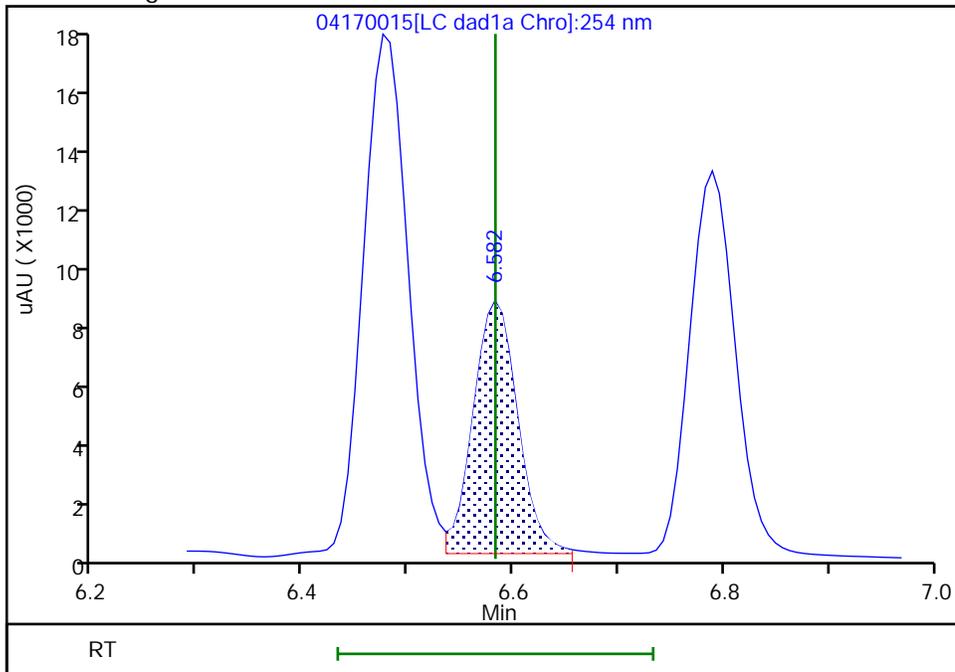
RT: 6.58
Area: 25313
Amount: 0.246706
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 23583
Amount: 0.246829
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

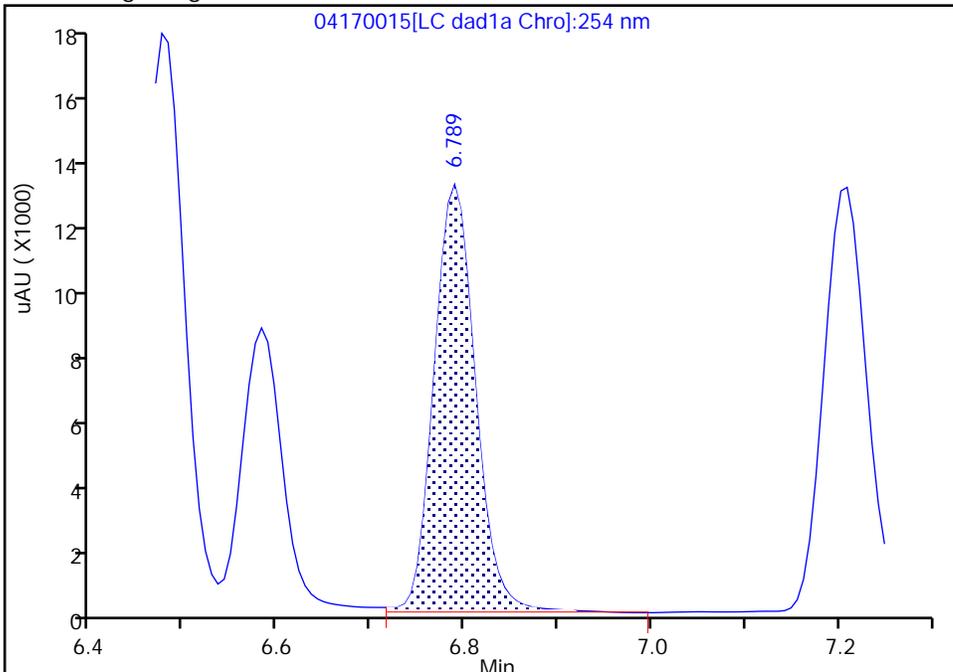
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

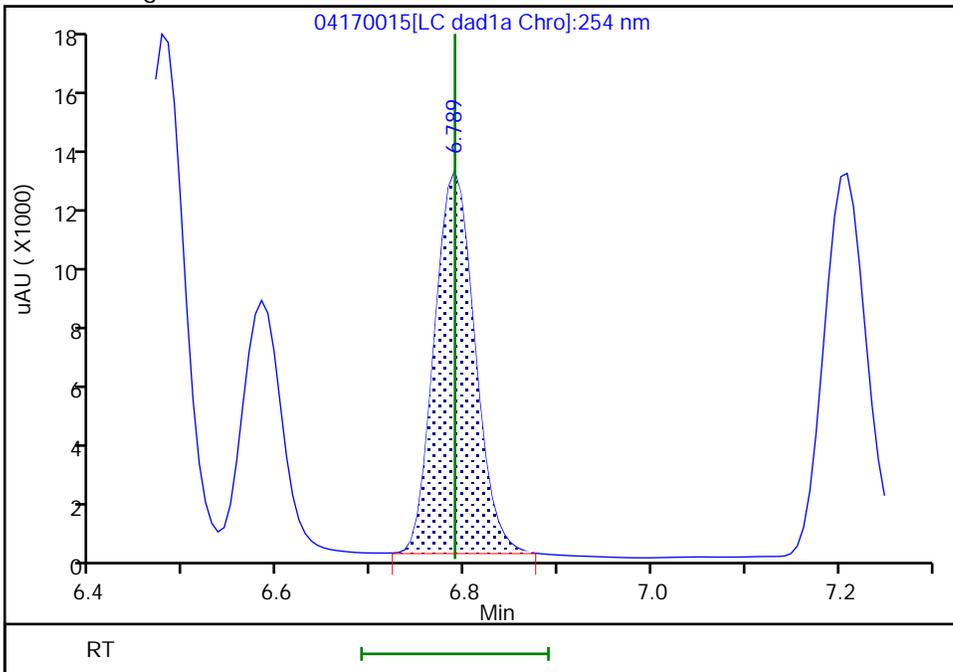
RT: 6.79
Area: 38558
Amount: 0.252268
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 36872
Amount: 0.250388
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:17 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

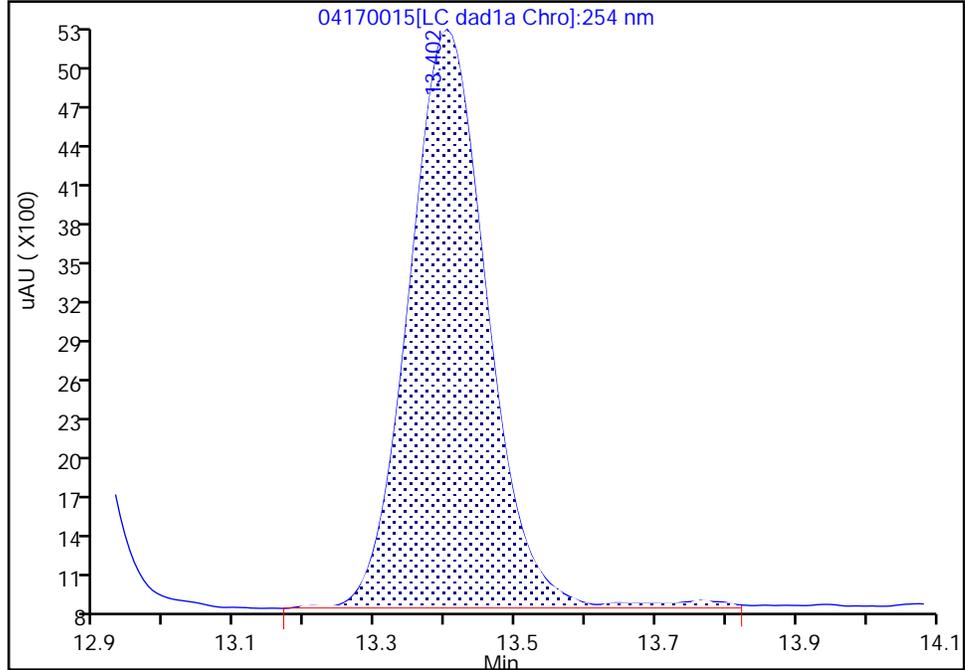
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

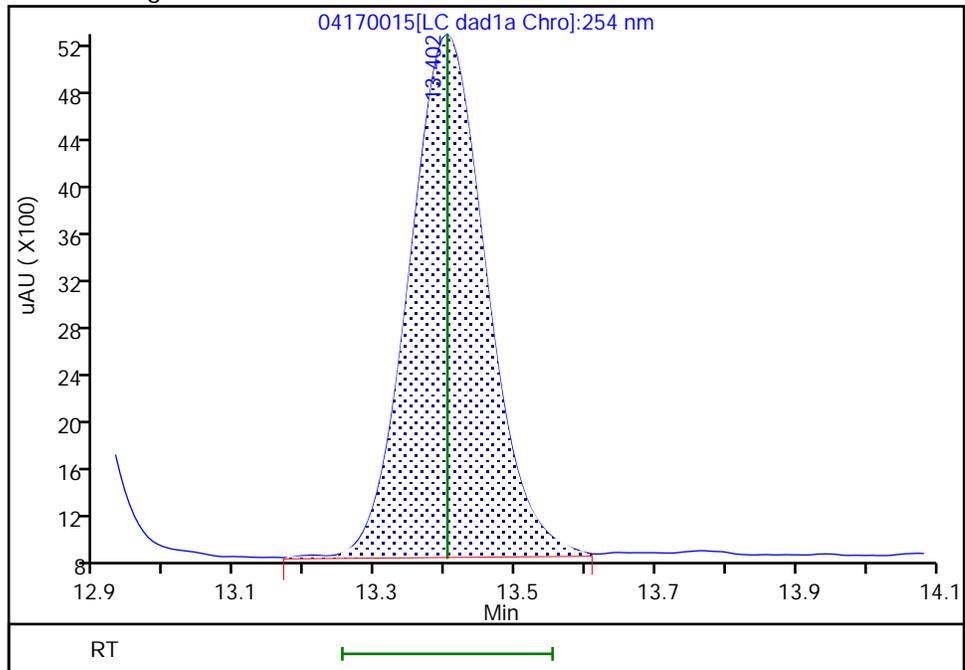
RT: 13.40
Area: 34432
Amount: 0.238653
Amount Units: ug/mL

Processing Integration Results



RT: 13.40
Area: 33952
Amount: 0.235674
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:33 -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\20240417-132364.b\04170016.D
 Lims ID: IC INT/DMT 4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 17-Apr-2024 22:32:42 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:27 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	20006	0.1004	0.1005	M
4 HMX	1	6.583	6.583	0.000	9645	0.1000	0.1009	M
6 DNX	1	6.789	6.789	0.000	14834	0.1002	0.1007	M
7 MNX	1	7.203	7.203	0.000	15807	0.1169	0.1156	
8 RDX	1	7.583	7.583	0.000	11162	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.816	7.816	0.000	8016	0.1000	0.1011	
\$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	13450	0.1000	0.1015	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	22129	0.1000	0.0993	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	30359	0.1000	0.1014	
13 Nitrobenzene	1	9.636	9.636	0.000	20035	0.1000	0.1020	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	22651	0.1000	0.1036	
15 Tetryl	1	9.963	9.963	0.000	18238	0.1000	0.1004	
16 Nitroglycerin	2	10.429	10.429	0.000	71367	1.00	1.07	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	21912	0.1000	0.1018	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	15344	0.1000	0.1023	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	20033	0.1000	0.1003	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	15218	0.1000	0.1036	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	29452	0.1000	0.1009	
22 o-Nitrotoluene	1	12.423	12.423	0.000	12977	0.1000	0.1004	
23 p-Nitrotoluene	1	12.843	12.843	0.000	11360	0.1000	0.1007	
24 m-Nitrotoluene	1	13.403	13.403	0.000	14207	0.1000	0.0986	
25 PETN	2	14.483	14.483	0.000	72600	1.00	1.01	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 10.00

Units: uL

8330 DMT_00016

Amount Added: 5.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d

Injection Date: 17-Apr-2024 22:32:42

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

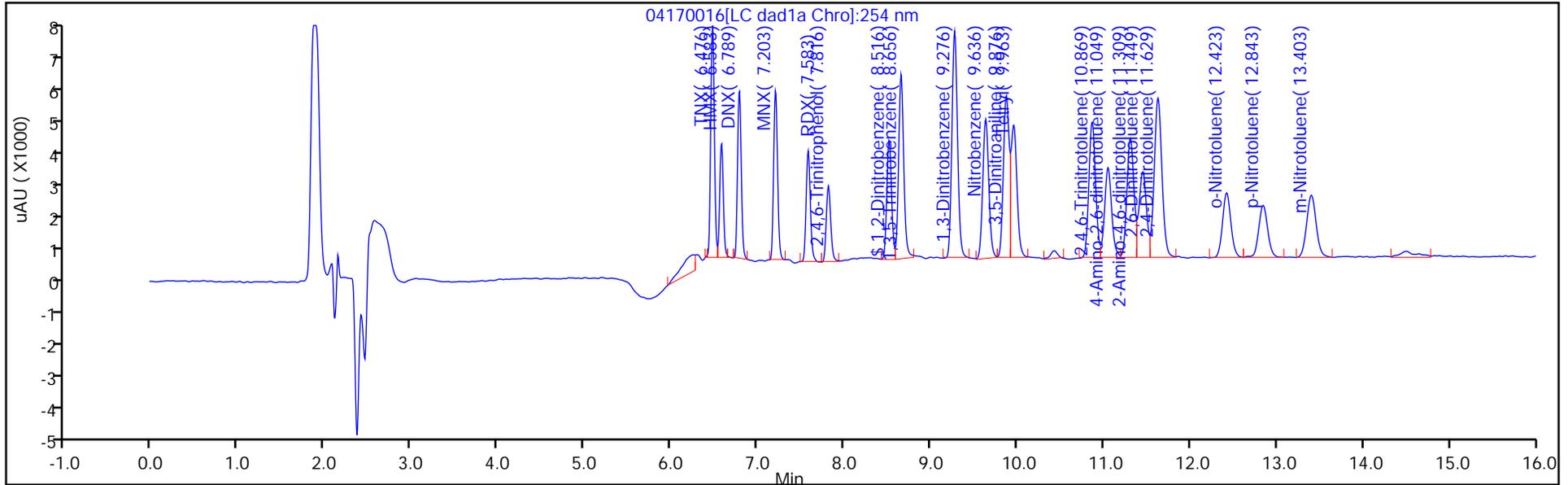
ALS Bottle#: 16

Method: 8330_X3

Limit Group: GCSV - 8330

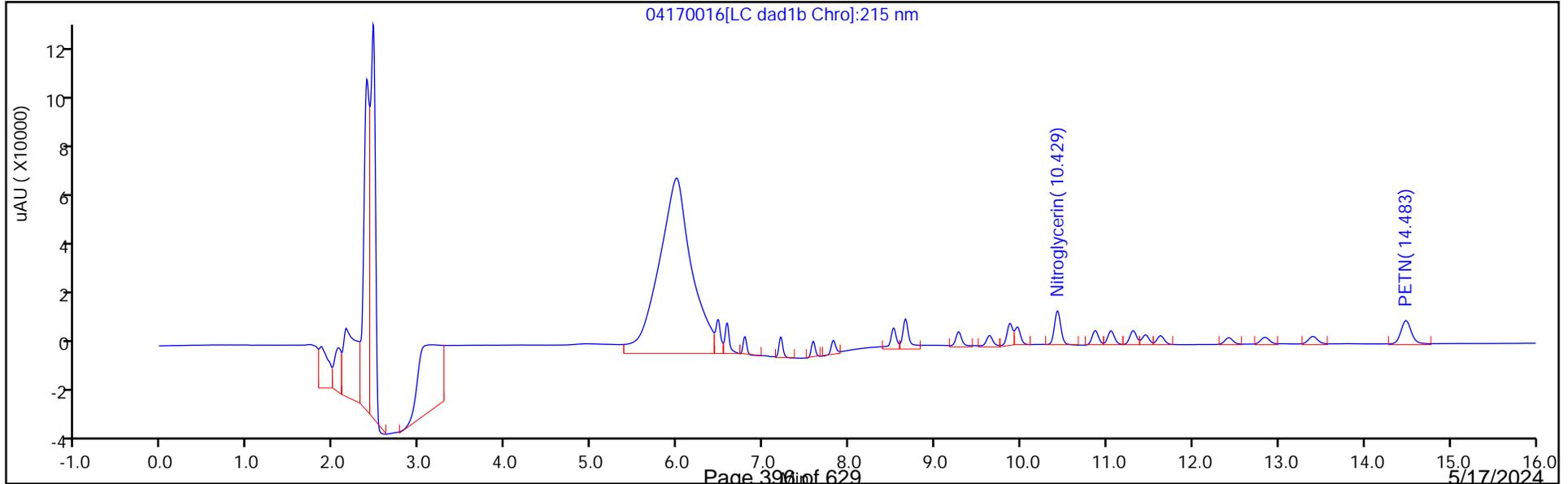
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

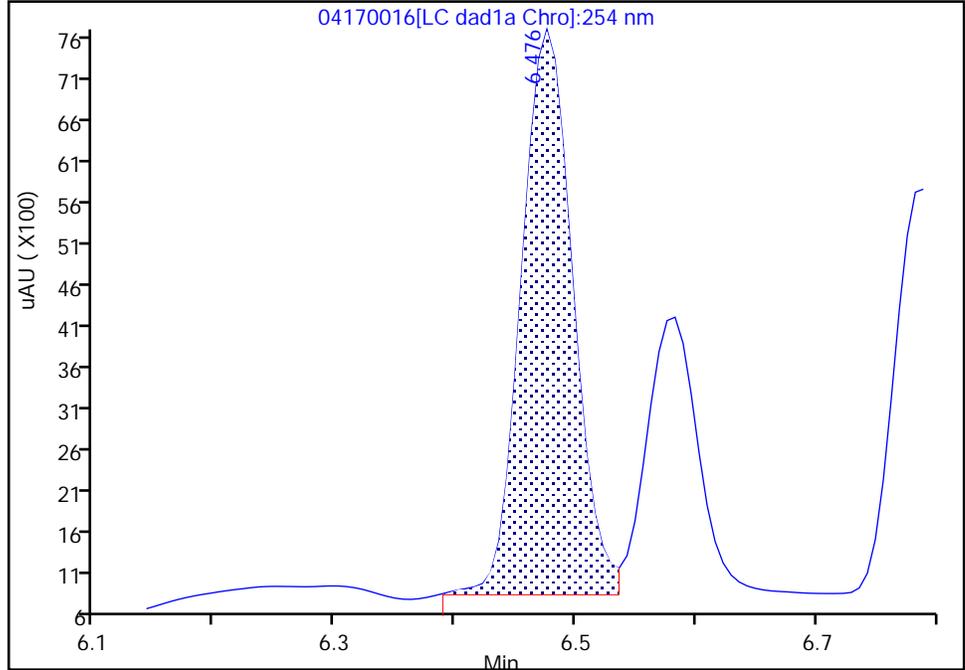
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

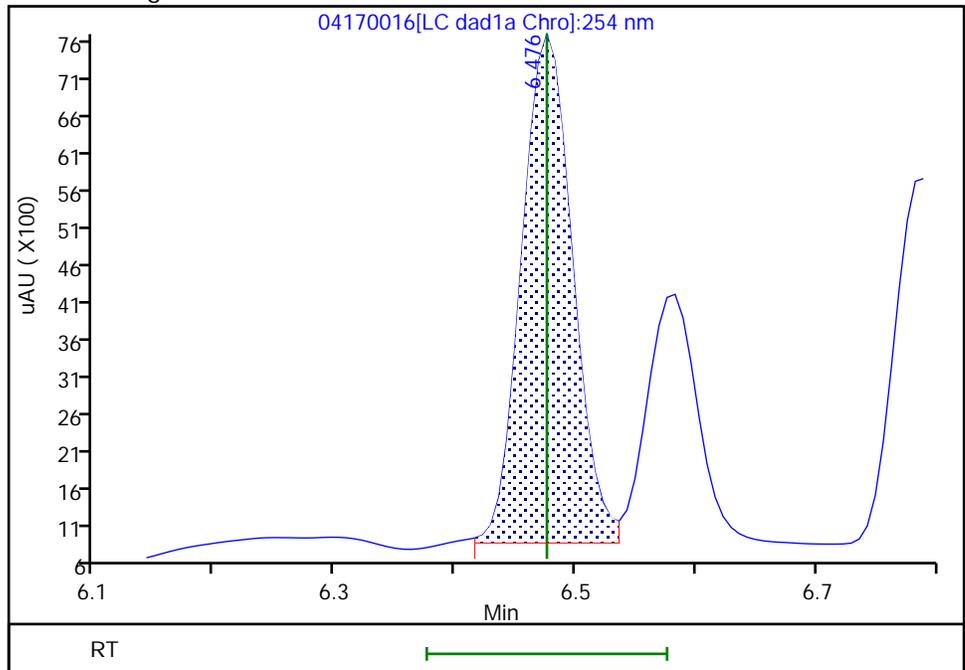
RT: 6.48
Area: 20438
Amount: 0.099827
Amount Units: ug/mL

Processing Integration Results



RT: 6.48
Area: 20006
Amount: 0.100537
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

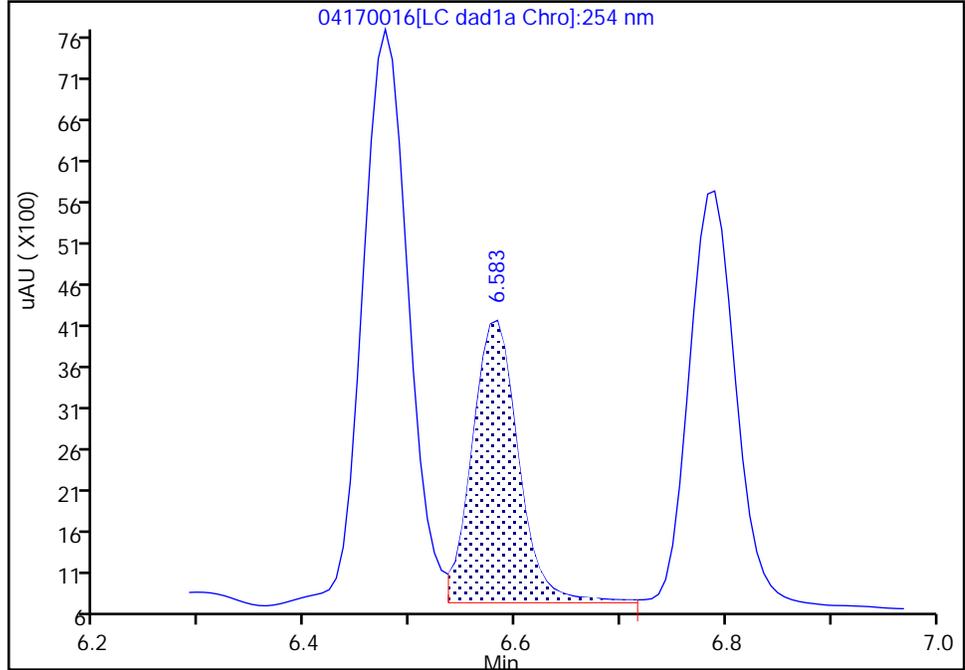
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

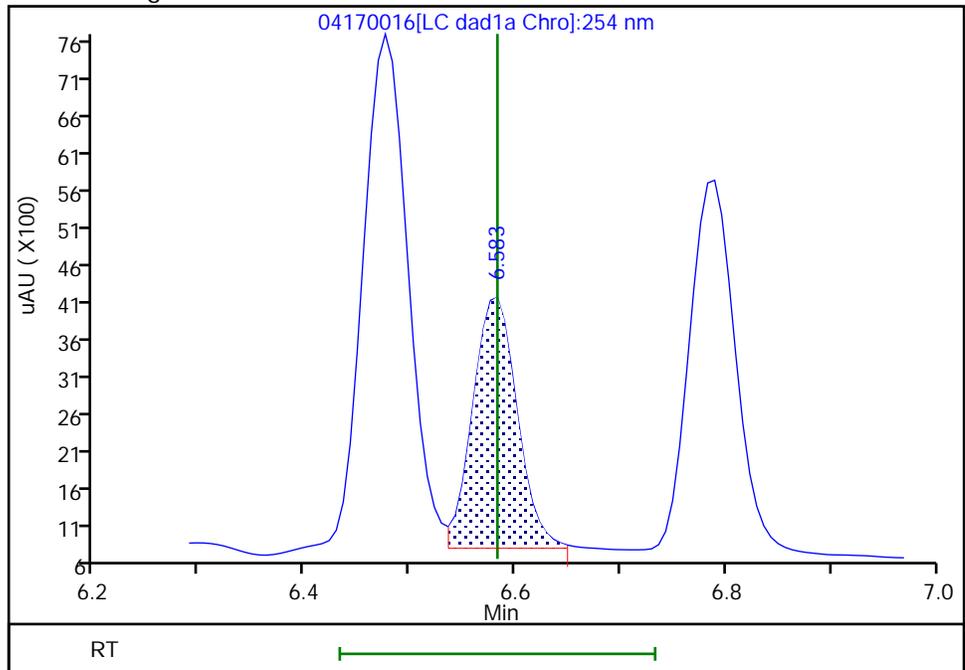
RT: 6.58
Area: 10277
Amount: 0.100918
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 9645
Amount: 0.100949
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

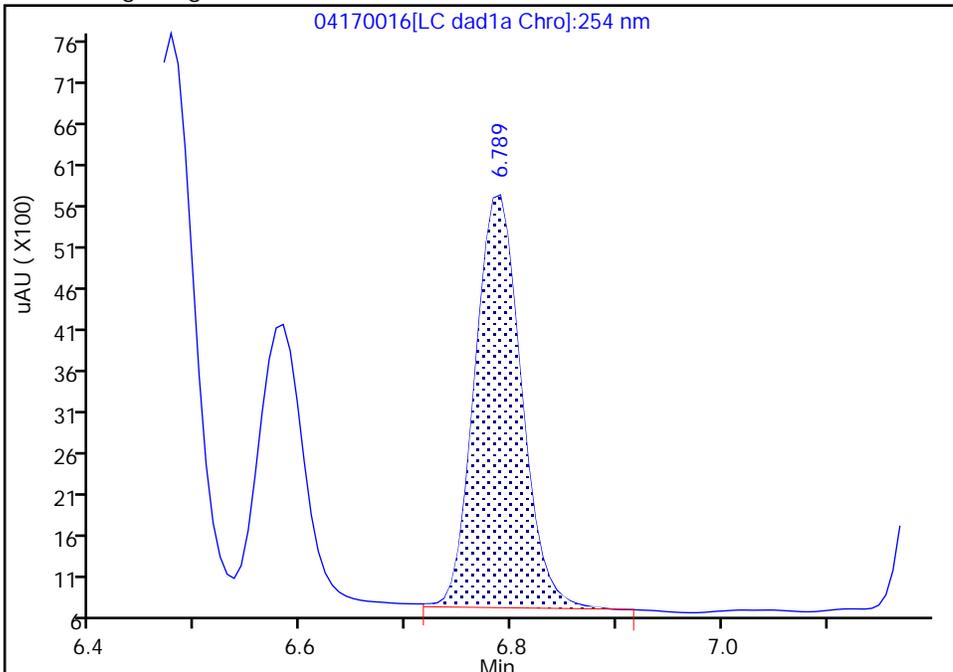
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

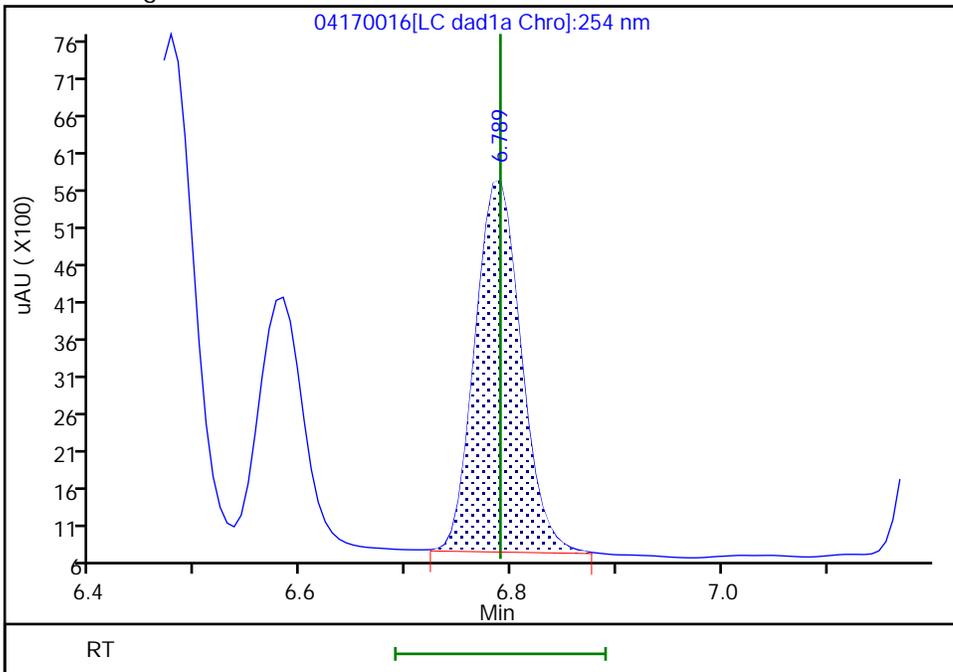
RT: 6.79
Area: 15232
Amount: 0.100146
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 14834
Amount: 0.100734
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

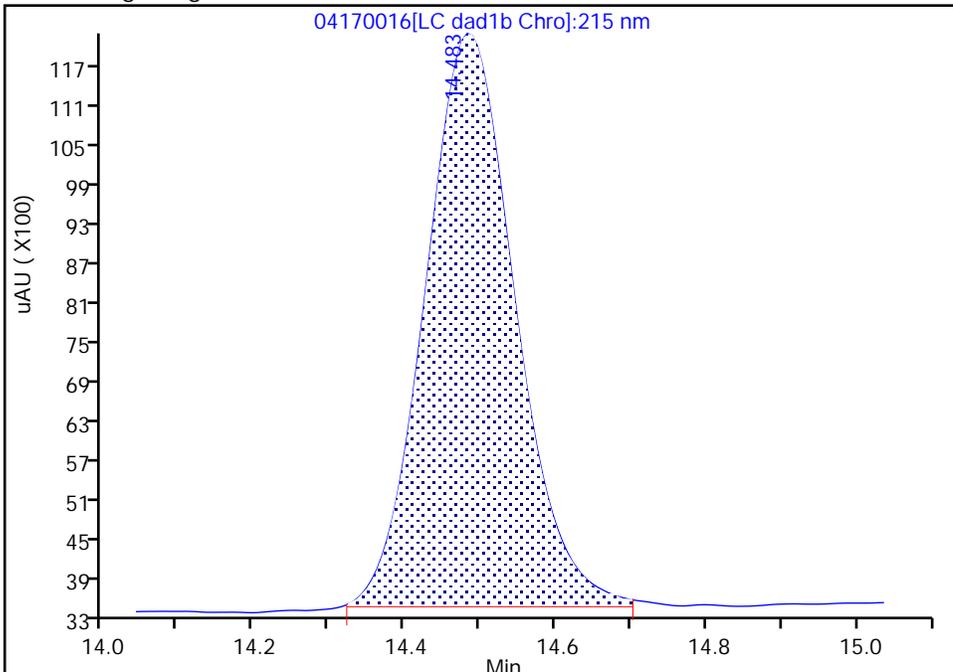
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d		
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 4		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	16 Worklist Smp#: 16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

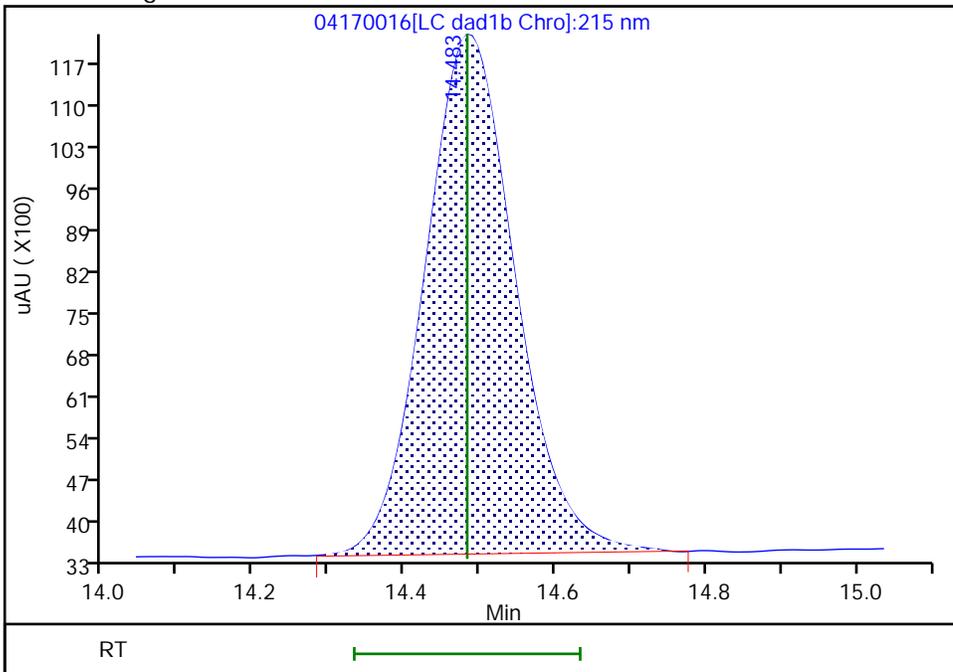
RT: 14.48
 Area: 72203
 Amount: 1.039474
 Amount Units: ug/mL

Processing Integration Results



RT: 14.48
 Area: 72600
 Amount: 1.009217
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:43 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170017.D
 Lims ID: IC INT/DMT 3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 17-Apr-2024 22:55:38 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:28 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:33

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	6.476	0.002	9628	0.0502	0.0484	M
4 HMX	1	6.578	6.583	-0.005	4536	0.0500	0.0475	M
6 DNX	1	6.784	6.789	-0.005	7258	0.0501	0.0493	M
7 MNX	1	7.204	7.203	0.001	7887	0.0585	0.0577	
8 RDX	1	7.584	7.583	0.001	5612	0.0500	0.0507	
9 2,4,6-Trinitrophenol	1	7.818	7.816	0.002	3847	0.0500	0.0485	
\$ 10 1,2-Dinitrobenzene	1	8.518	8.516	0.002	6521	0.0500	0.0488	
11 1,3,5-Trinitrobenzene	1	8.658	8.656	0.002	11258	0.0500	0.0505	
12 1,3-Dinitrobenzene	1	9.277	9.276	0.001	15023	0.0500	0.0502	
13 Nitrobenzene	1	9.631	9.636	-0.005	9759	0.0500	0.0497	
14 3,5-Dinitroaniline	1	9.871	9.876	-0.005	10781	0.0500	0.0499	
15 Tetryl	1	9.957	9.963	-0.006	9010	0.0500	0.0496	
16 Nitroglycerin	2	10.424	10.429	-0.005	35657	0.5000	0.5365	
17 2,4,6-Trinitrotoluene	1	10.864	10.869	-0.005	10669	0.0500	0.0496	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.049	-0.005	7533	0.0500	0.0502	
19 2-Amino-4,6-dinitrotoluene	1	11.304	11.309	-0.005	9923	0.0500	0.0497	
20 2,6-Dinitrotoluene	1	11.451	11.449	0.002	7267	0.0500	0.0495	
21 2,4-Dinitrotoluene	1	11.624	11.629	-0.005	14425	0.0500	0.0494	
22 o-Nitrotoluene	1	12.424	12.423	0.001	6526	0.0500	0.0505	
23 p-Nitrotoluene	1	12.844	12.843	0.001	5631	0.0500	0.0499	
24 m-Nitrotoluene	1	13.404	13.403	0.001	7074	0.0500	0.0491	
25 PETN	2	14.491	14.483	0.008	35216	0.5000	0.4895	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 5.00

Units: uL

8330 DMT_00016

Amount Added: 2.50

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d

Injection Date: 17-Apr-2024 22:55:38

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

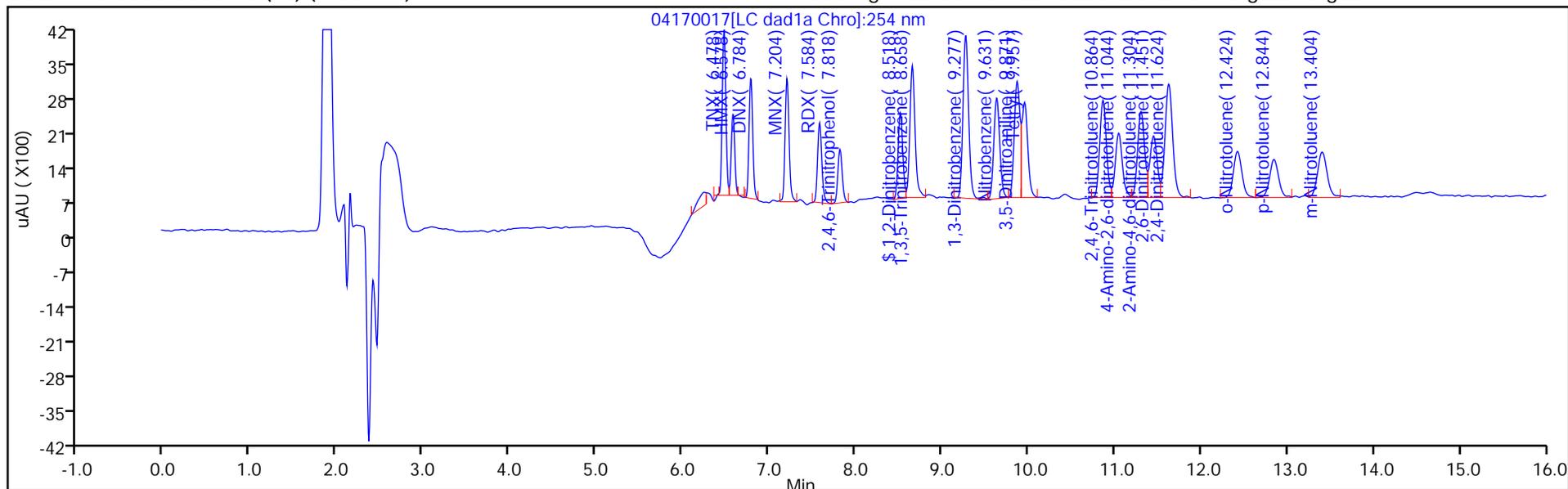
ALS Bottle#: 17

Method: 8330_X3

Limit Group: GCSV - 8330

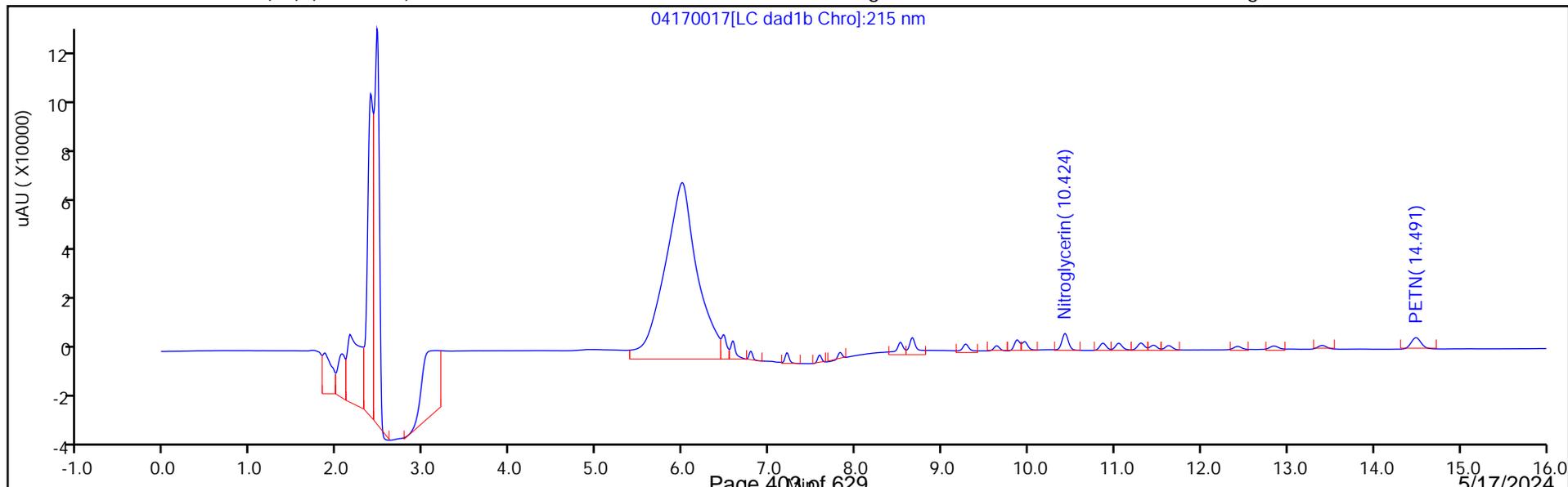
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

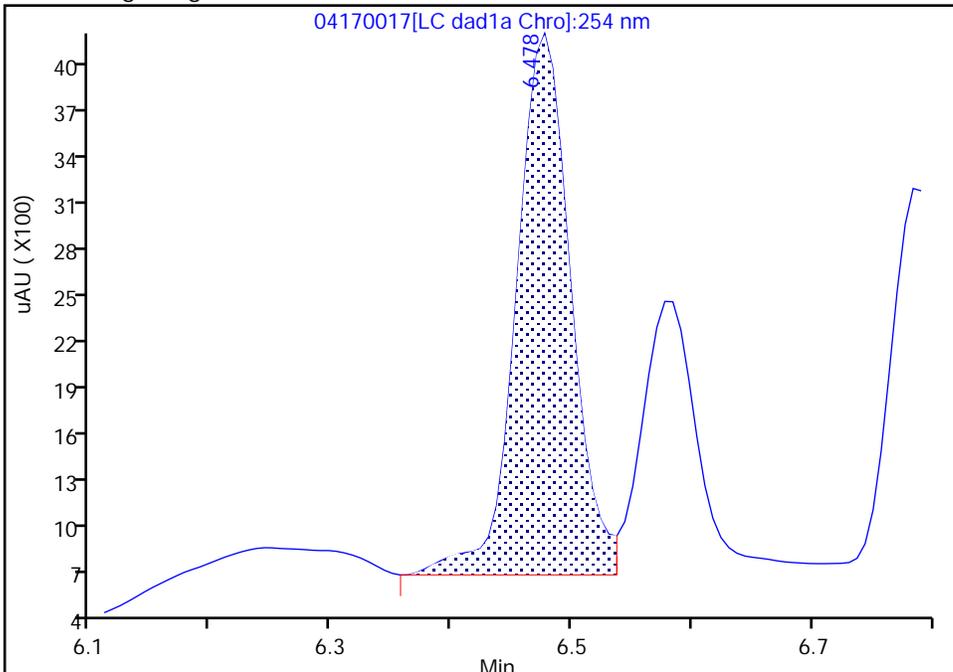
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d		
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 3		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm
		Worklist Smp#:	17

3 TNX, CAS: 13980-04-6

Signal: 1

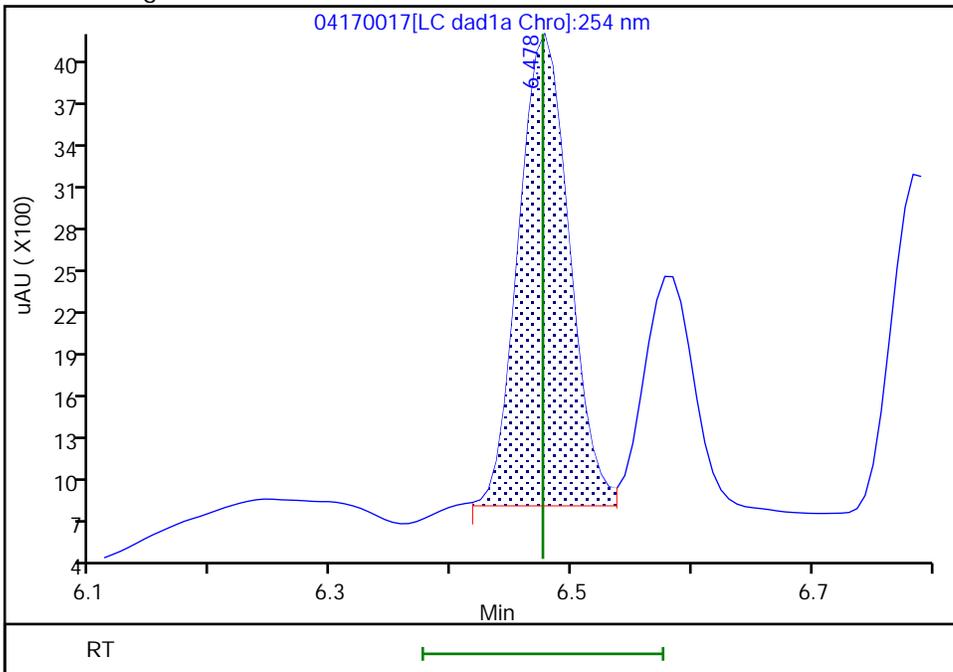
RT: 6.48
 Area: 10871
 Amount: 0.053223
 Amount Units: ug/mL

Processing Integration Results



RT: 6.48
 Area: 9628
 Amount: 0.048384
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

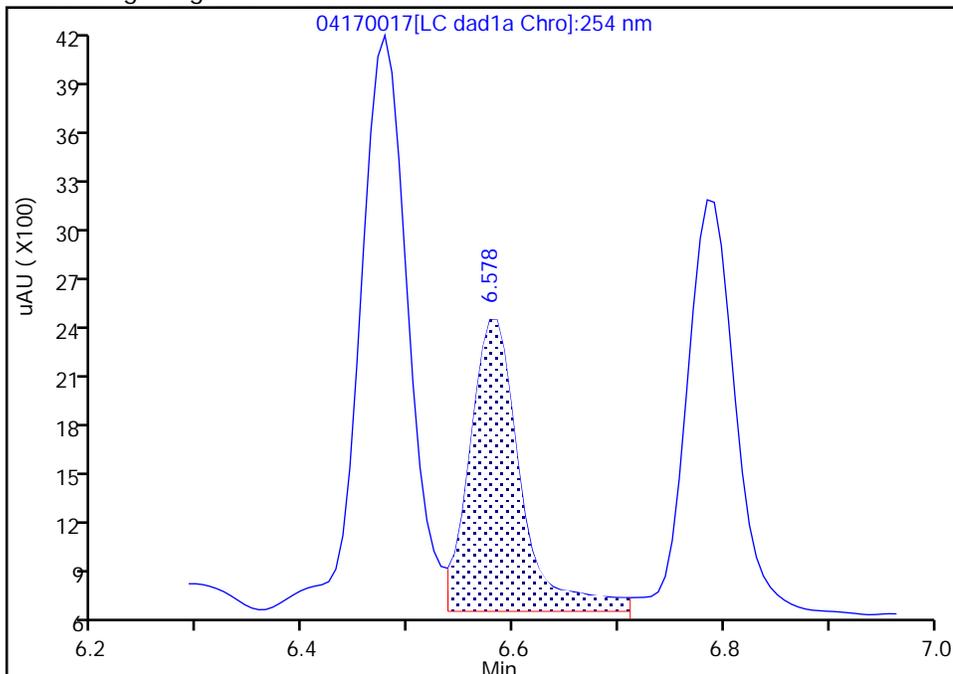
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

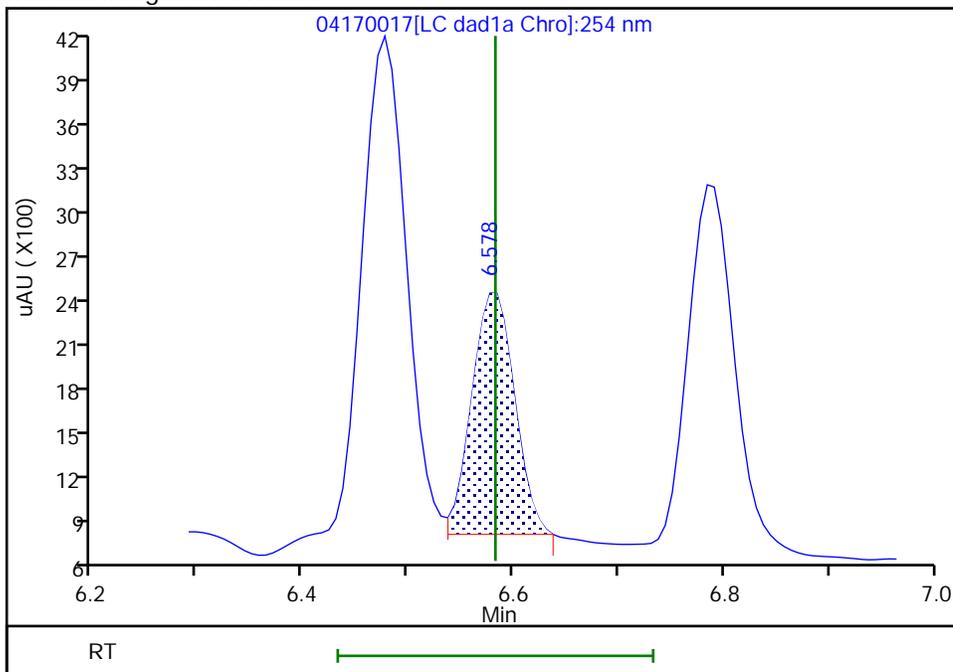
RT: 6.58
Area: 5791
Amount: 0.057261
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 4536
Amount: 0.047476
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:22 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

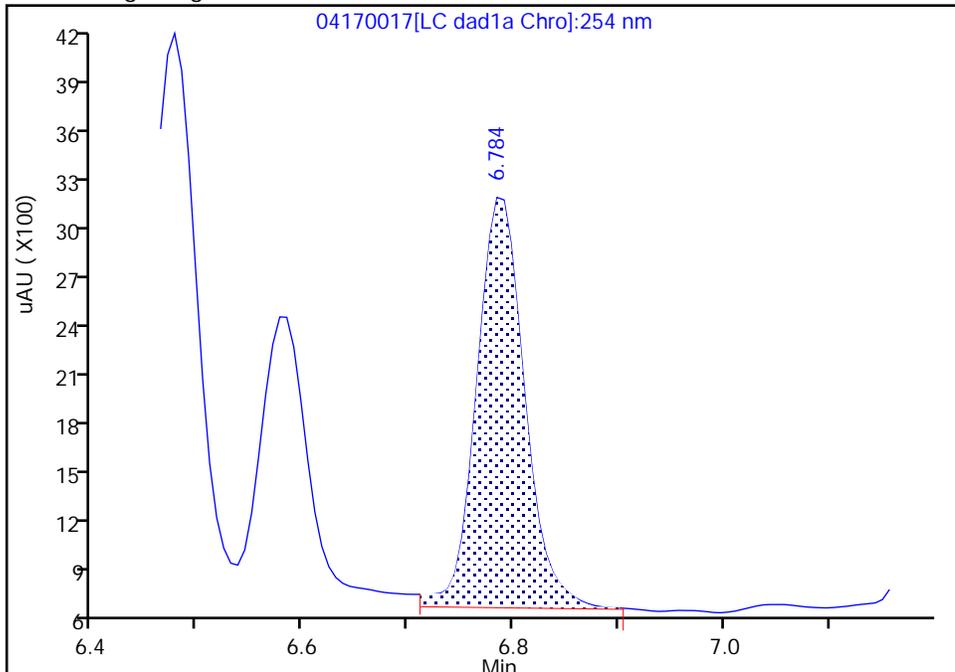
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

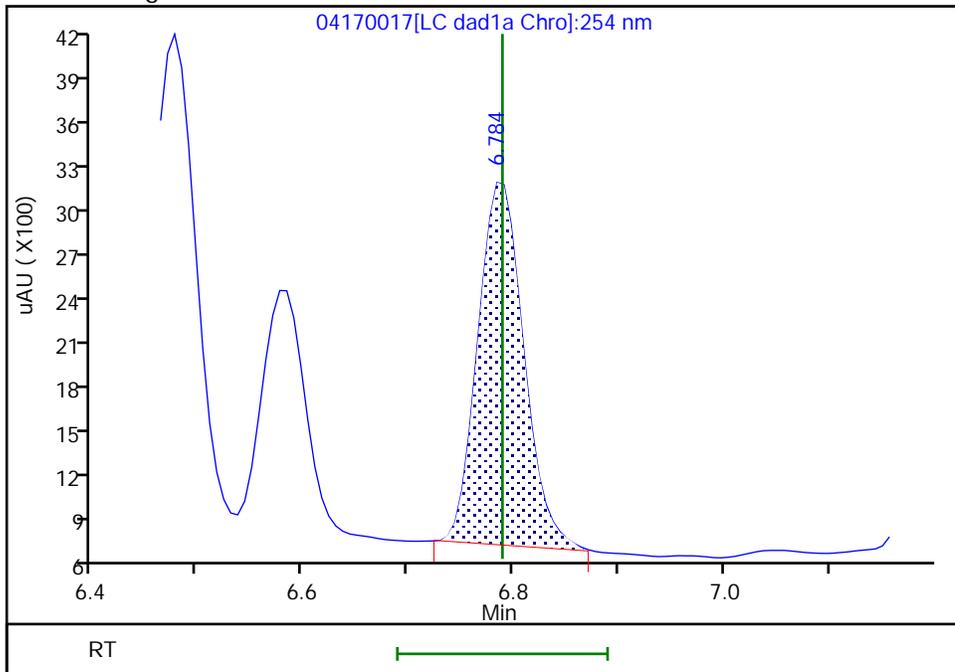
RT: 6.78
Area: 7818
Amount: 0.051551
Amount Units: ug/mL

Processing Integration Results



RT: 6.78
Area: 7258
Amount: 0.049287
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:26 -06:00:00 (UTC)
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

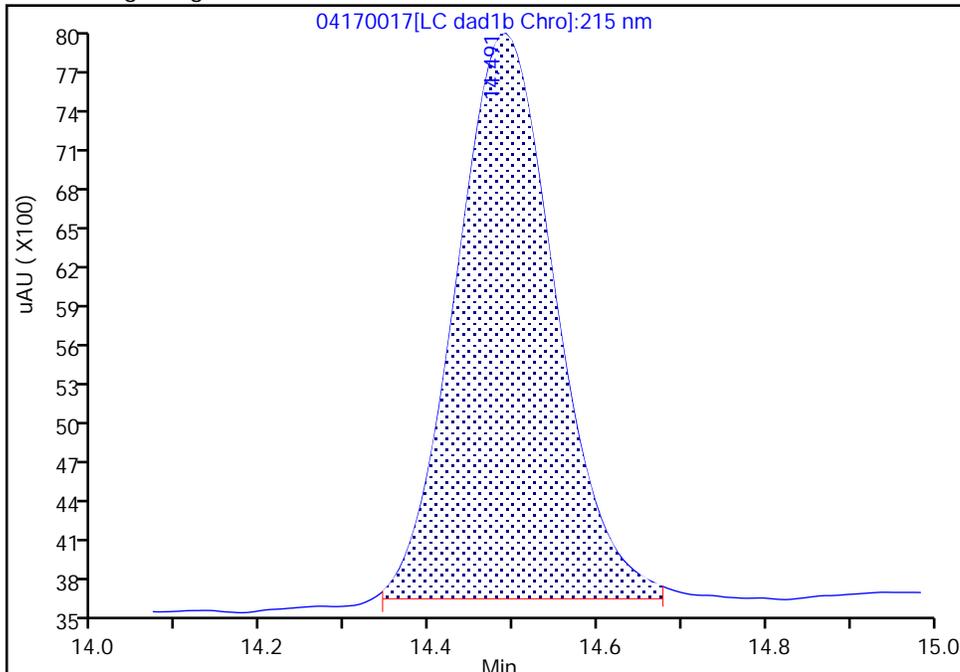
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

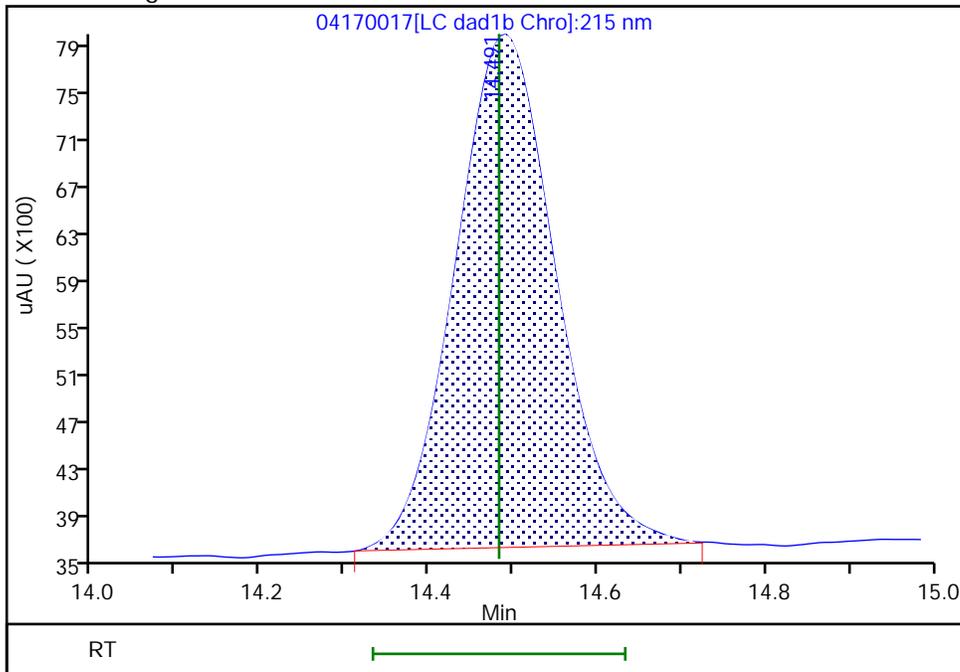
RT: 14.49
Area: 34790
Amount: 0.500498
Amount Units: ug/mL

Processing Integration Results



RT: 14.49
Area: 35216
Amount: 0.489540
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170018.D
 Lims ID: IC INT/DMT 2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 17-Apr-2024 23:18:32 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:29 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:17:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	4023	0.0201	0.0202	
4 HMX	1	6.582	6.583	-0.001	2017	0.0200	0.0211	
6 DNX	1	6.788	6.789	-0.001	2843	0.0200	0.0193	M
7 MNX	1	7.202	7.203	-0.001	2991	0.0234	0.0219	
8 RDX	1	7.582	7.583	-0.001	2334	0.0200	0.0211	
9 2,4,6-Trinitrophenol	1	7.822	7.816	0.006	1524	0.0200	0.0192	
\$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	2603	0.0200	0.0191	M
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	4349	0.0200	0.0195	M
12 1,3-Dinitrobenzene	1	9.275	9.276	-0.001	5678	0.0200	0.0190	
13 Nitrobenzene	1	9.635	9.636	-0.001	3932	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	4171	0.0200	0.0199	M
15 Tetryl	1	9.955	9.963	-0.008	3374	0.0200	0.0186	Ma
16 Nitroglycerin	2	10.422	10.429	-0.007	11963	0.2000	0.1800	M
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	4400	0.0200	0.0204	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	3261	0.0200	0.0217	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	3997	0.0200	0.0200	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	2880	0.0200	0.0196	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	5793	0.0200	0.0198	
22 o-Nitrotoluene	1	12.415	12.423	-0.008	2777	0.0200	0.0215	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	2413	0.0200	0.0214	
24 m-Nitrotoluene	1	13.395	13.403	-0.008	3066	0.0200	0.0213	
25 PETN	2	14.482	14.483	-0.001	14174	0.2000	0.1970	M

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00080

Amount Added: 2.00

Units: uL

8330 DMT_00016

Amount Added: 1.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d

Injection Date: 17-Apr-2024 23:18:32

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

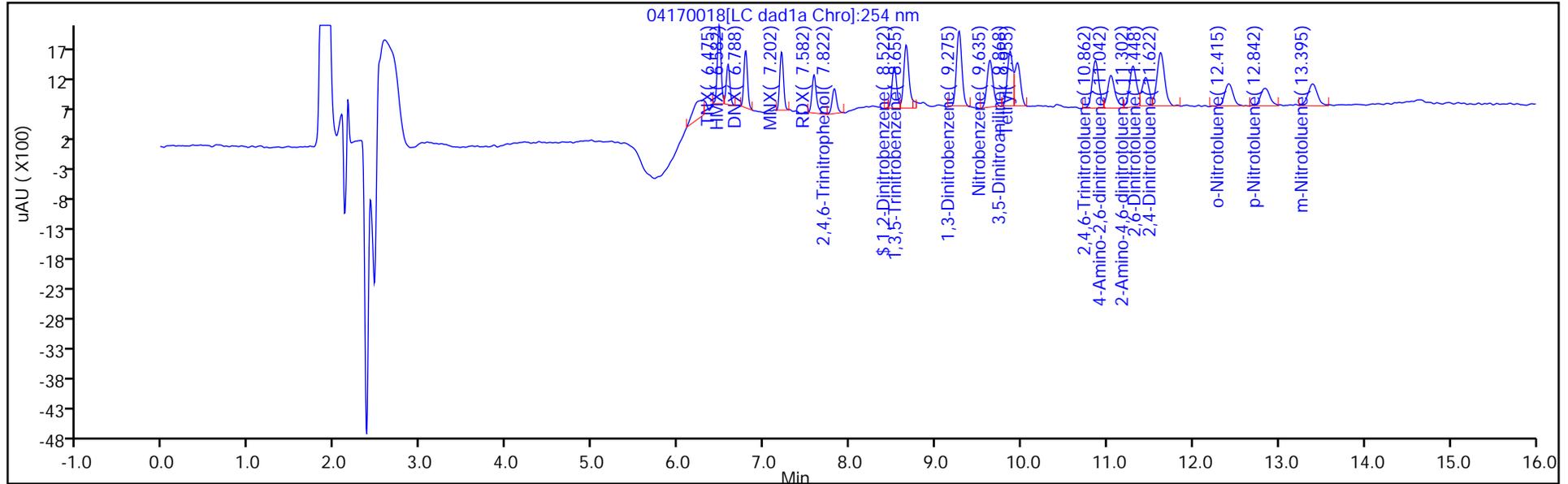
ALS Bottle#: 18

Method: 8330_X3

Limit Group: GCSV - 8330

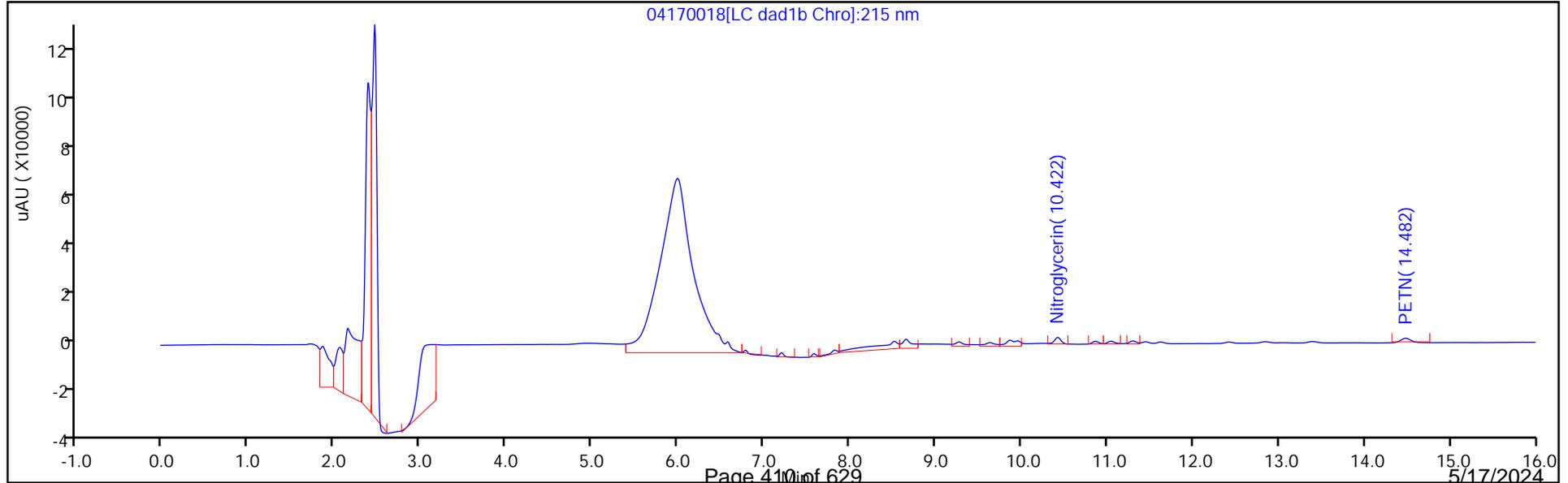
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

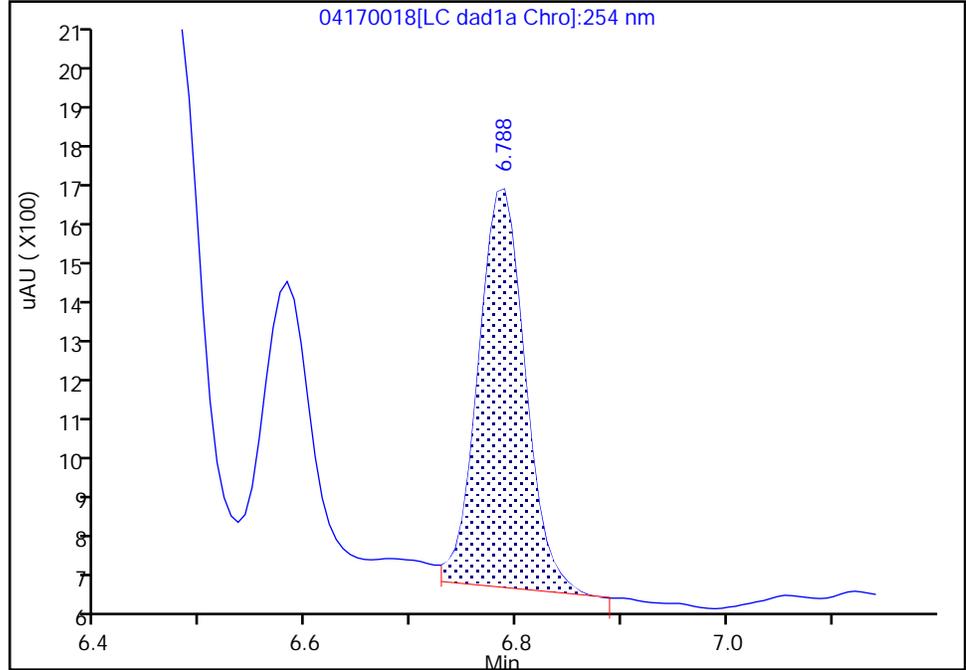
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

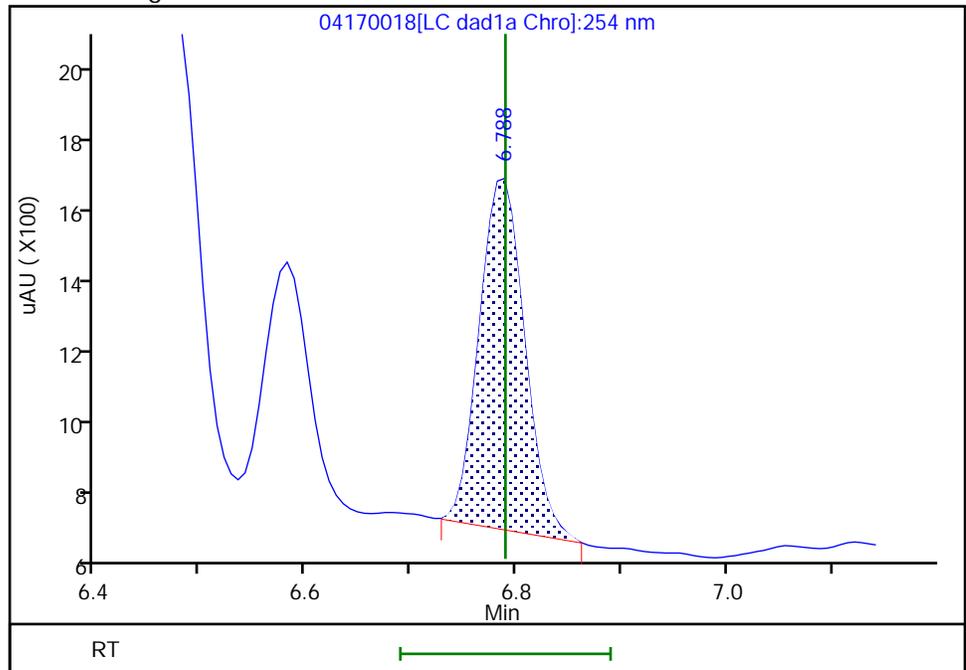
RT: 6.79
Area: 3044
Amount: 0.020237
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 2843
Amount: 0.019306
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:01 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

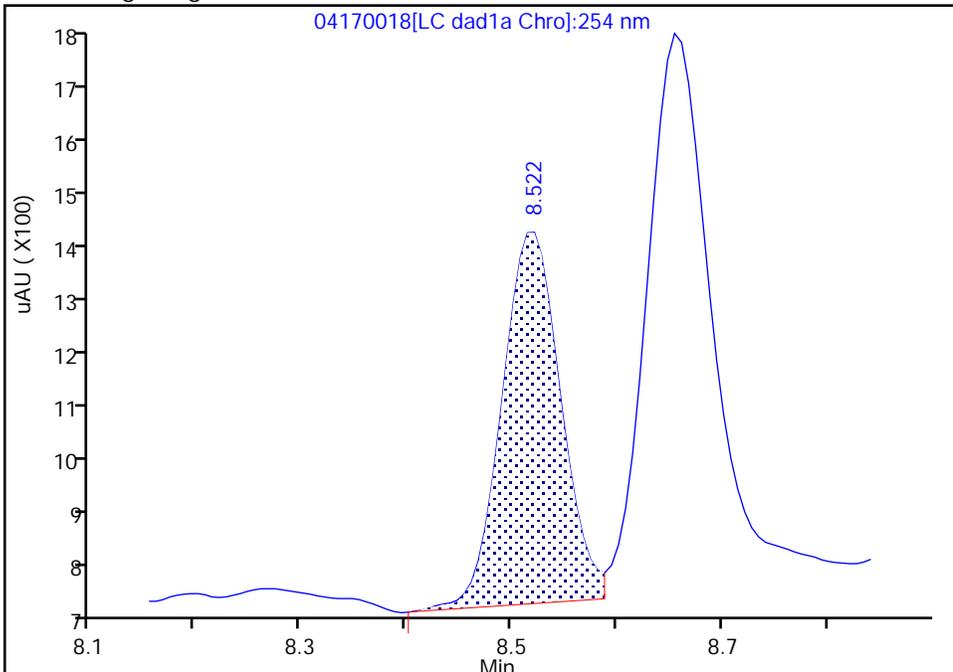
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d		
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 2		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	18 Worklist Smp#: 18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm

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

Signal: 1

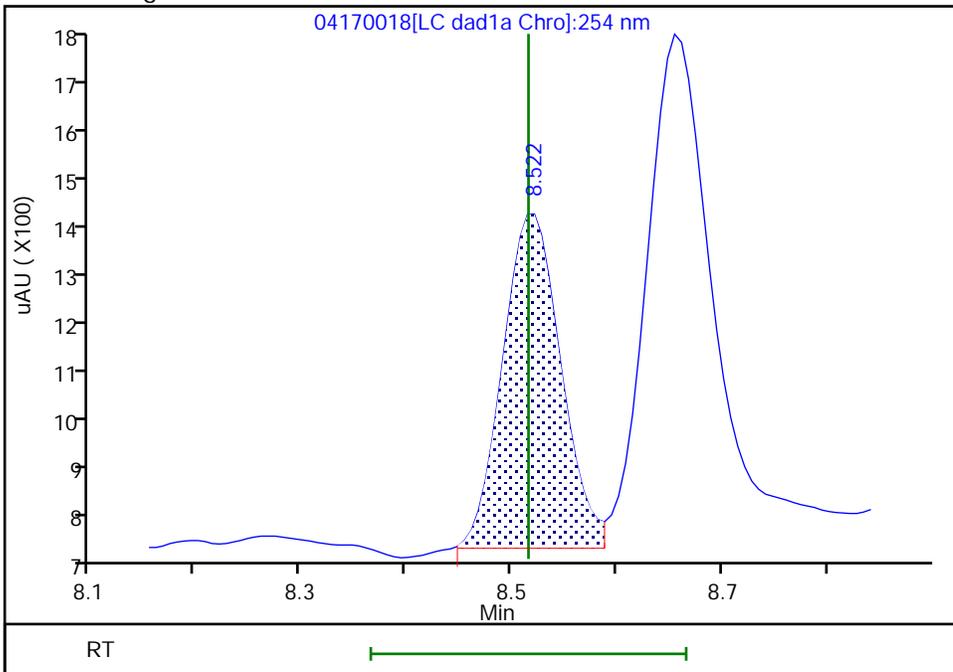
RT: 8.52
 Area: 2640
 Amount: 0.019730
 Amount Units: ug/mL

Processing Integration Results



RT: 8.52
 Area: 2603
 Amount: 0.019063
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:58 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

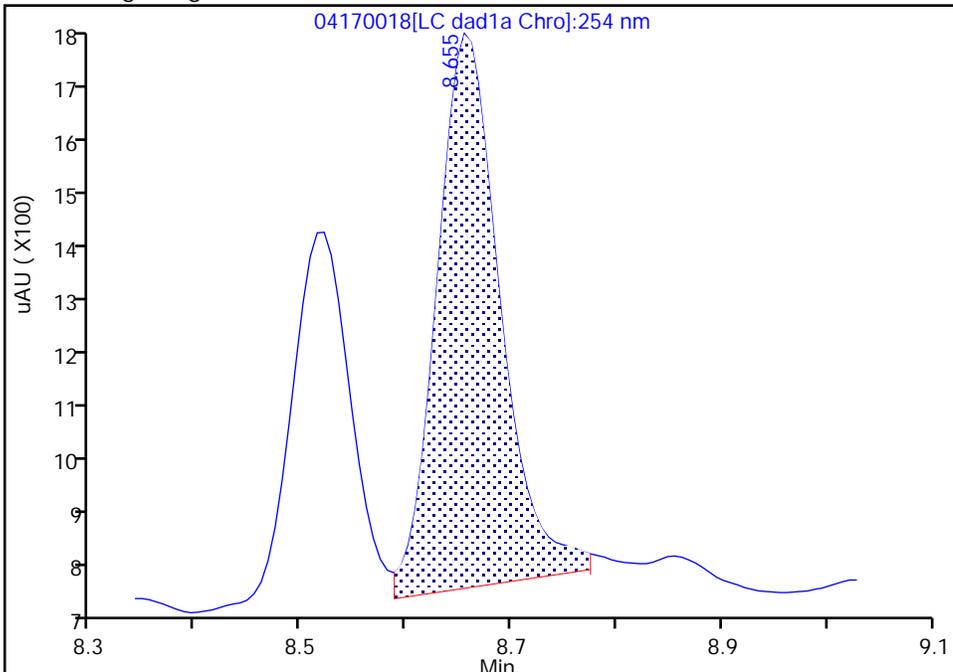
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

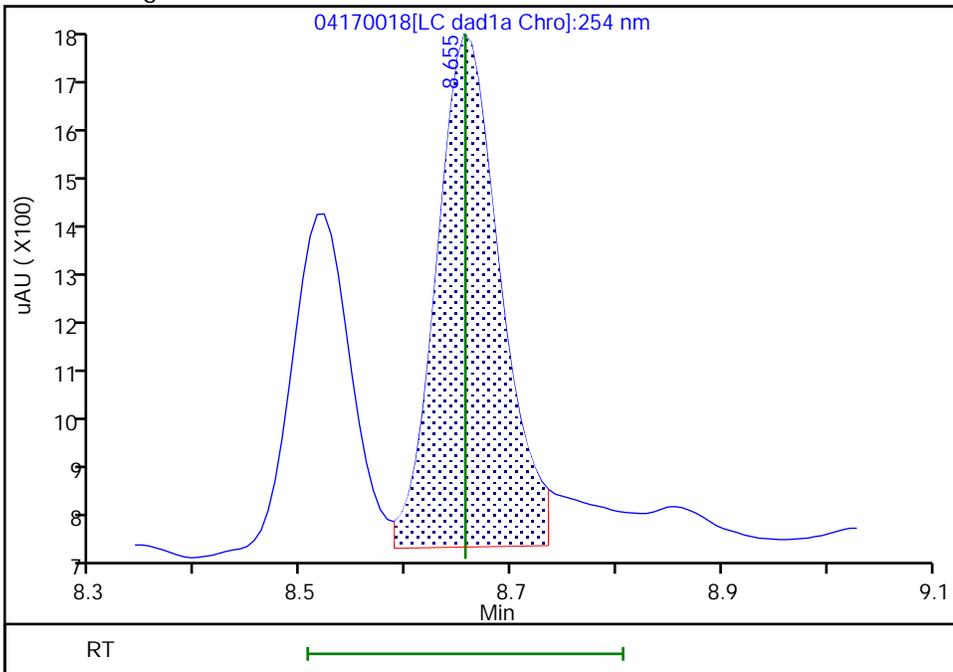
RT: 8.66
Area: 4251
Amount: 0.019122
Amount Units: ug/mL

Processing Integration Results



RT: 8.66
Area: 4349
Amount: 0.019515
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

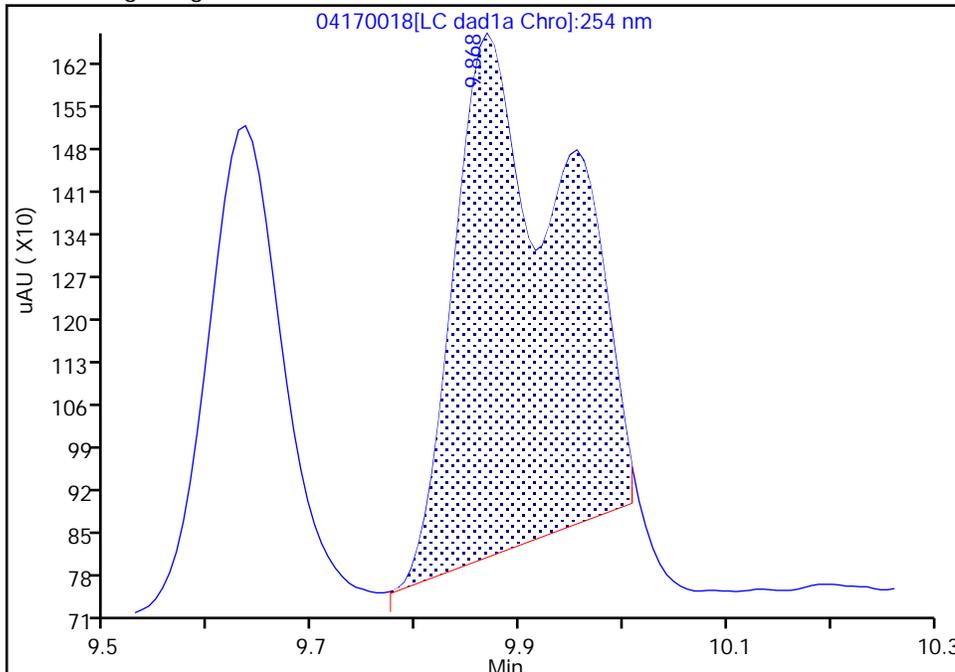
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

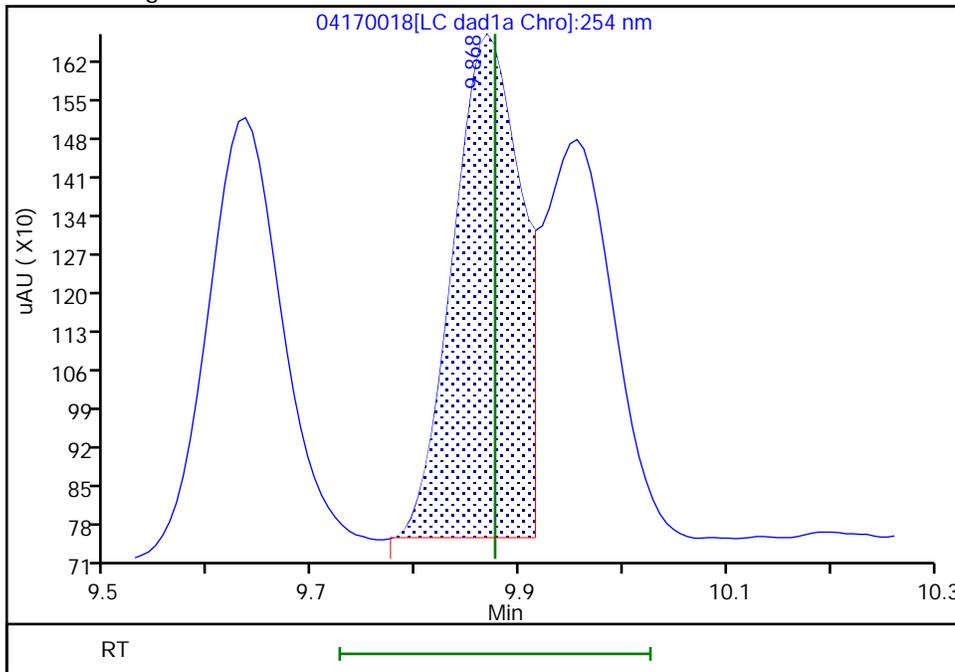
RT: 9.87
Area: 6350
Amount: 0.025070
Amount Units: ug/mL

Processing Integration Results



RT: 9.87
Area: 4171
Amount: 0.019946
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

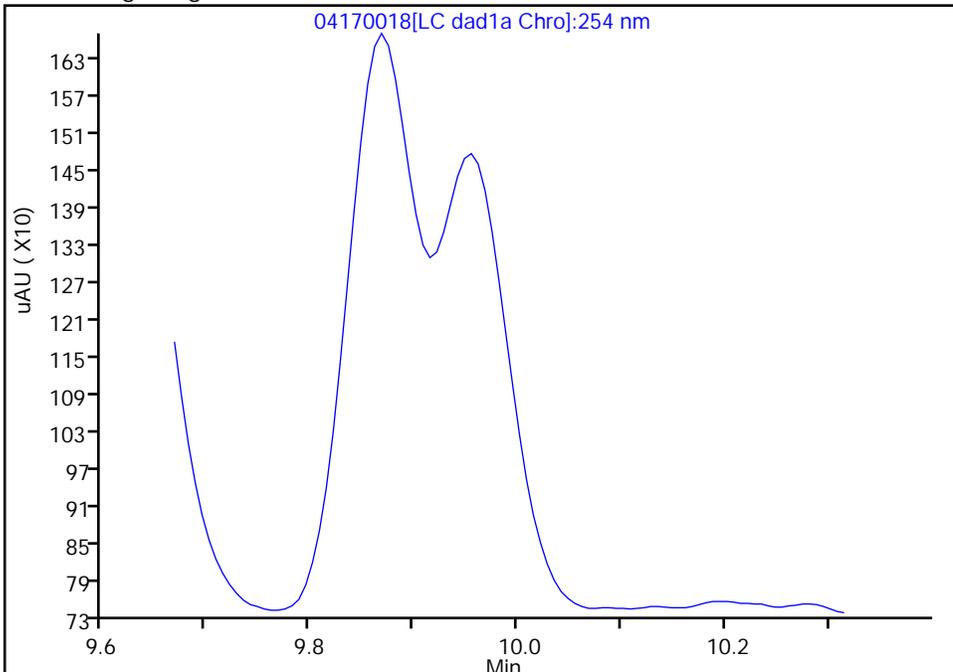
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8

Signal: 1

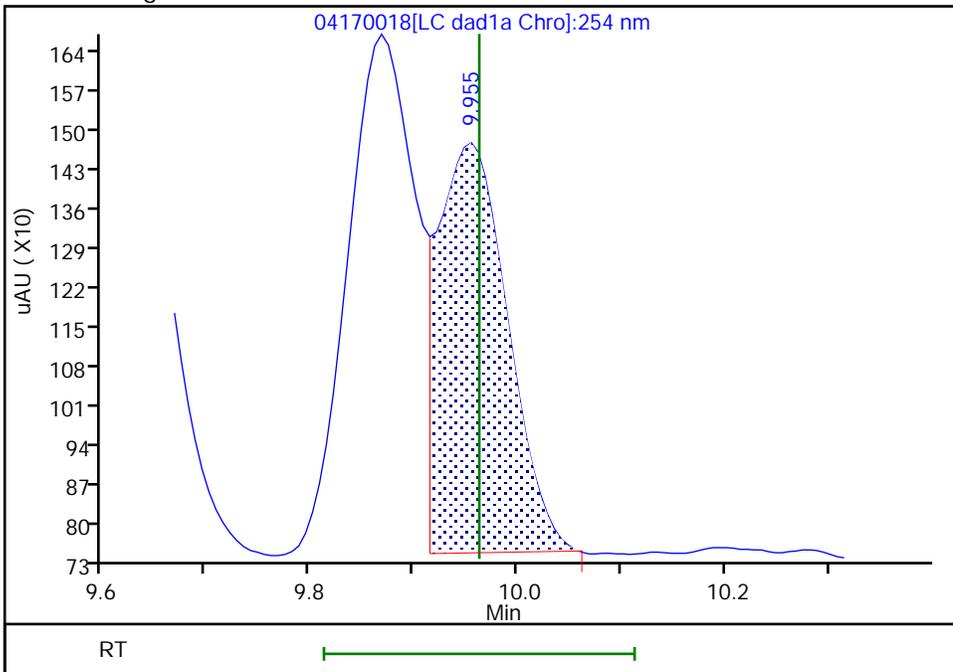
Not Detected
Expected RT: 9.96

Processing Integration Results



RT: 9.95
Area: 3374
Amount: 0.018581
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:18 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

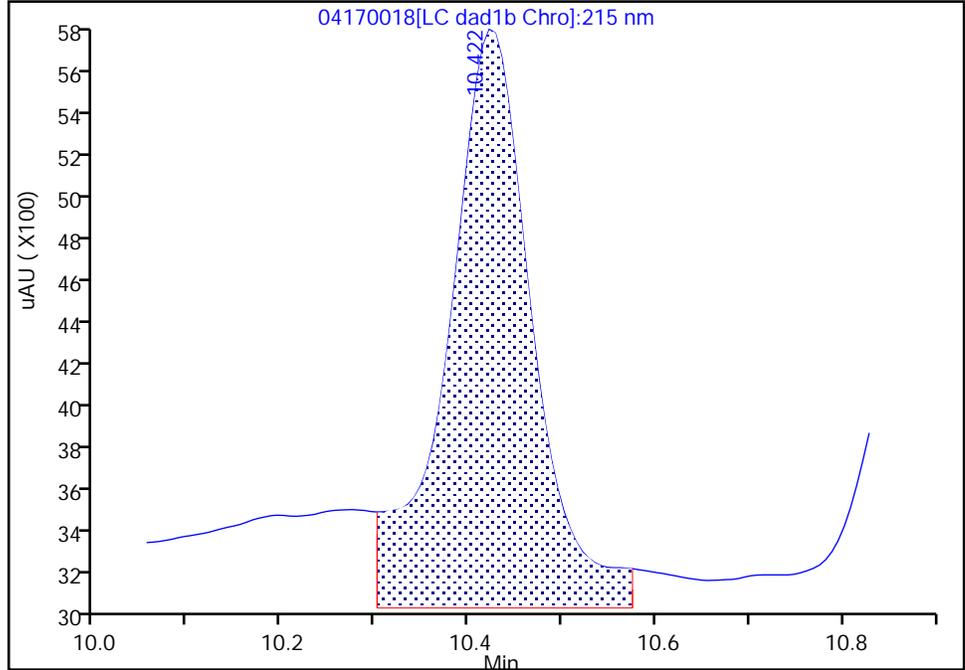
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

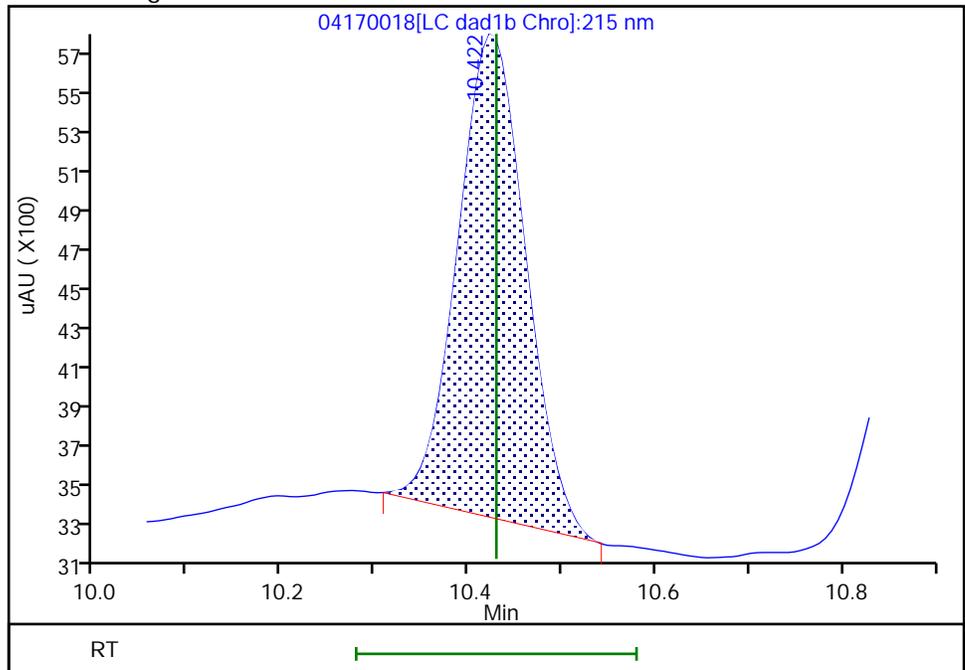
RT: 10.42
Area: 17067
Amount: 0.169937
Amount Units: ug/mL

Processing Integration Results



RT: 10.42
Area: 11963
Amount: 0.179992
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:33 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

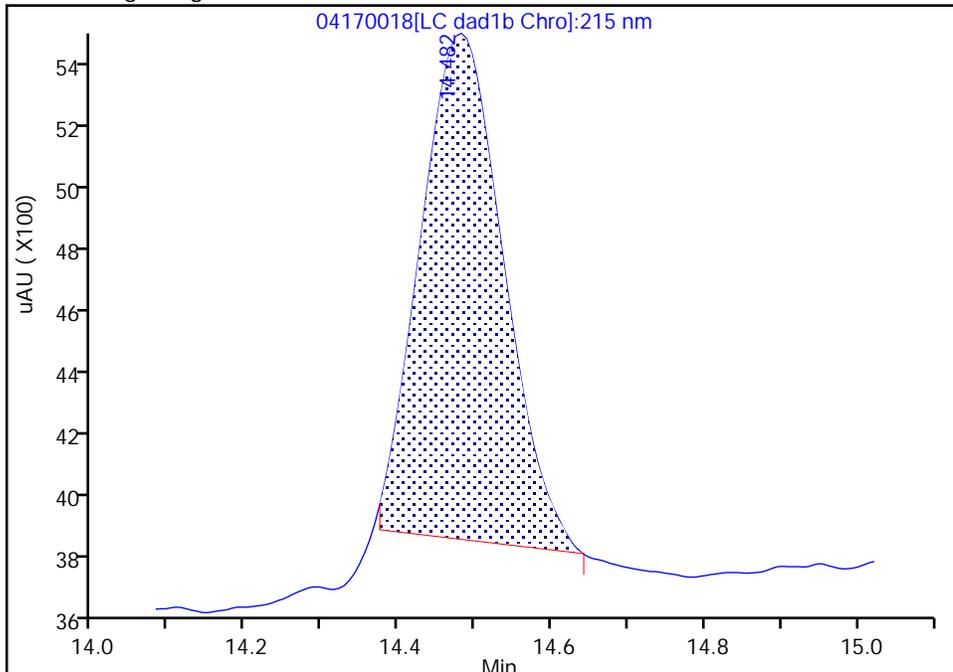
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

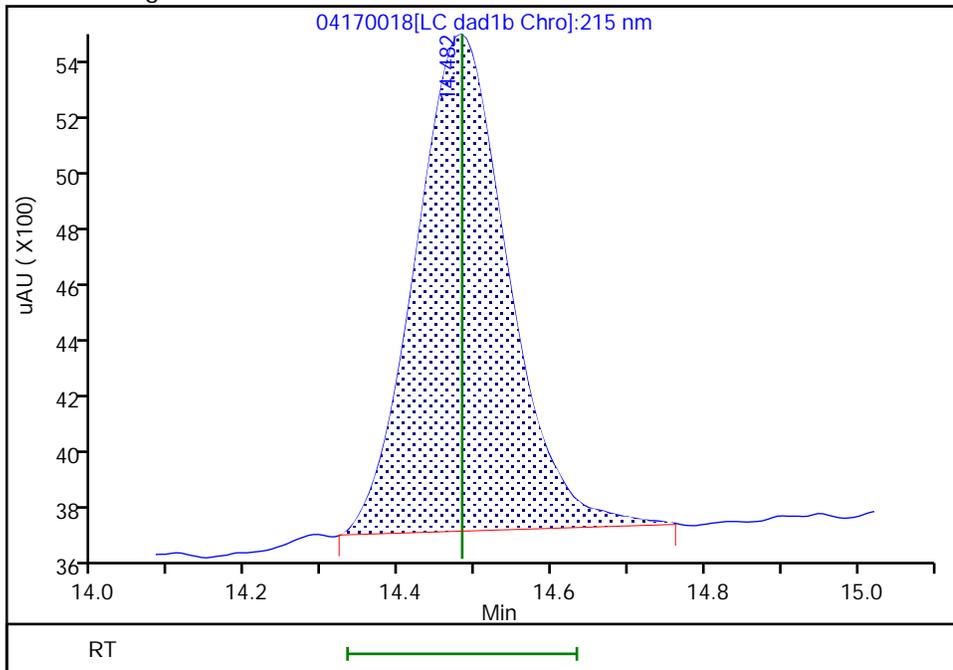
RT: 14.48
Area: 11689
Amount: 0.167904
Amount Units: ug/mL

Processing Integration Results



RT: 14.48
Area: 14174
Amount: 0.197034
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D
 Lims ID: IC INT/DMT 1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 17-Apr-2024 23:41:30 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 11:59:31 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:19:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.480	6.476	0.004	2051	0.0100	0.0103	M
4 HMX	1	6.580	6.583	-0.003	919	0.0100	0.009619	M
6 DNX	1	6.786	6.789	-0.003	1516	0.0100	0.0103	M
7 MNX	1	7.206	7.203	0.003	1649	0.0117	0.0121	
8 RDX	1	7.580	7.583	-0.003	1187	0.0100	0.0107	M
9 2,4,6-Trinitrophenol	1	7.820	7.816	0.004	787	0.0100	0.0099	
\$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	1445	0.0100	0.0103	M
11 1,3,5-Trinitrobenzene	1	8.660	8.656	0.004	2549	0.0100	0.0114	M
12 1,3-Dinitrobenzene	1	9.273	9.276	-0.003	3086	0.0100	0.0103	
13 Nitrobenzene	1	9.633	9.636	-0.003	1985	0.0100	0.0101	
14 3,5-Dinitroaniline	1	9.873	9.876	-0.003	1971	0.0100	0.0100	M
15 Tetryl	1	9.953	9.963	-0.010	1835	0.0100	0.0101	Ma
16 Nitroglycerin	2	10.426	10.429	-0.003	6048	0.1000	0.0910	M
17 2,4,6-Trinitrotoluene	1	10.866	10.869	-0.003	2081	0.0100	0.009670	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.049	-0.003	1406	0.0100	0.009377	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	1951	0.0100	0.009764	
20 2,6-Dinitrotoluene	1	11.453	11.449	0.004	1557	0.0100	0.0106	
21 2,4-Dinitrotoluene	1	11.626	11.629	-0.003	2993	0.0100	0.0103	
22 o-Nitrotoluene	1	12.419	12.423	-0.004	1340	0.0100	0.0104	
23 p-Nitrotoluene	1	12.853	12.843	0.010	1249	0.0100	0.0111	
24 m-Nitrotoluene	1	13.399	13.403	-0.004	1713	0.0100	0.0119	
25 PETN	2	14.486	14.483	0.003	7807	0.1000	0.1085	Ma

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00080

Amount Added: 1.00

Units: uL

8330 DMT_00016

Amount Added: 0.50

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d

Injection Date: 17-Apr-2024 23:41:30

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

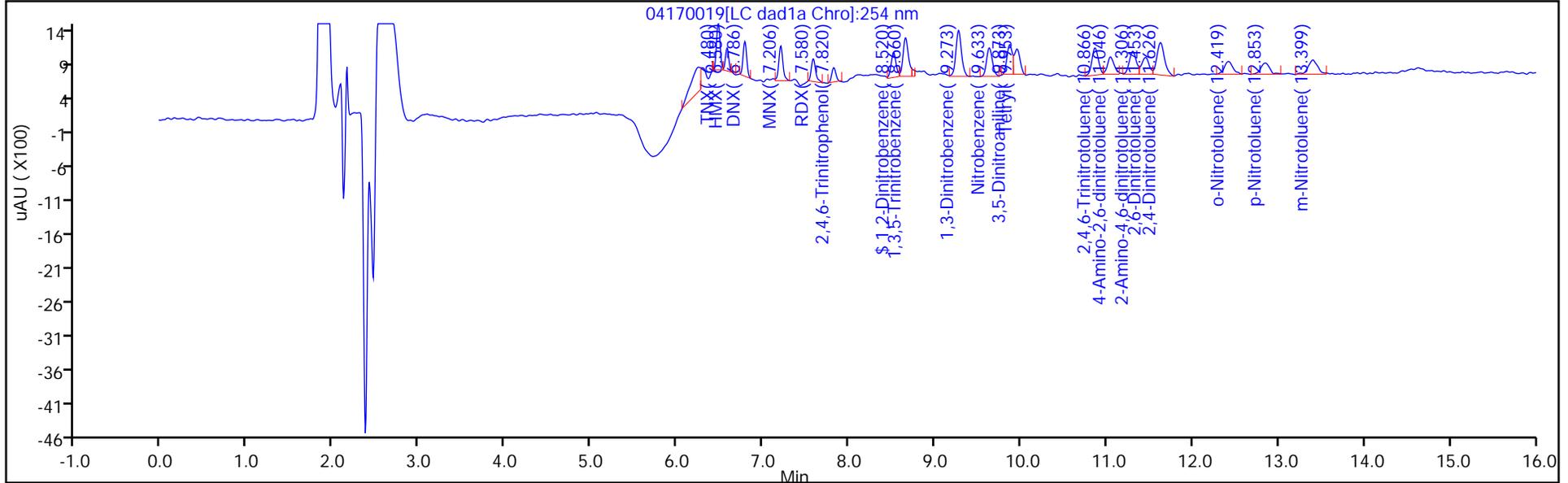
ALS Bottle#: 19

Method: 8330_X3

Limit Group: GCSV - 8330

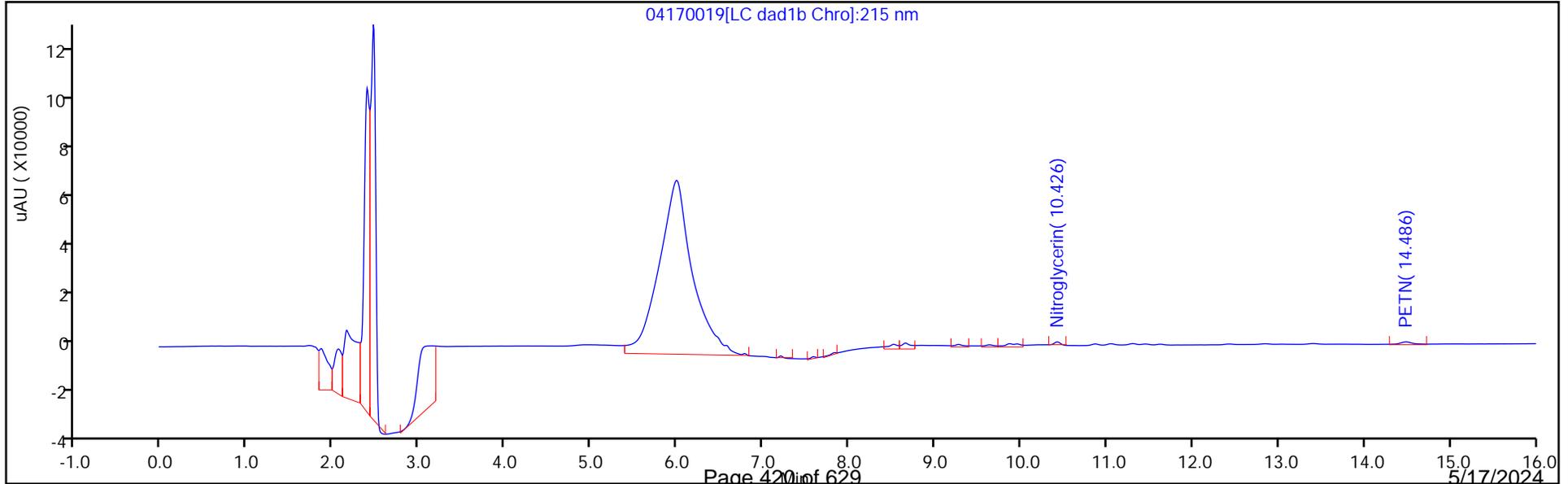
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

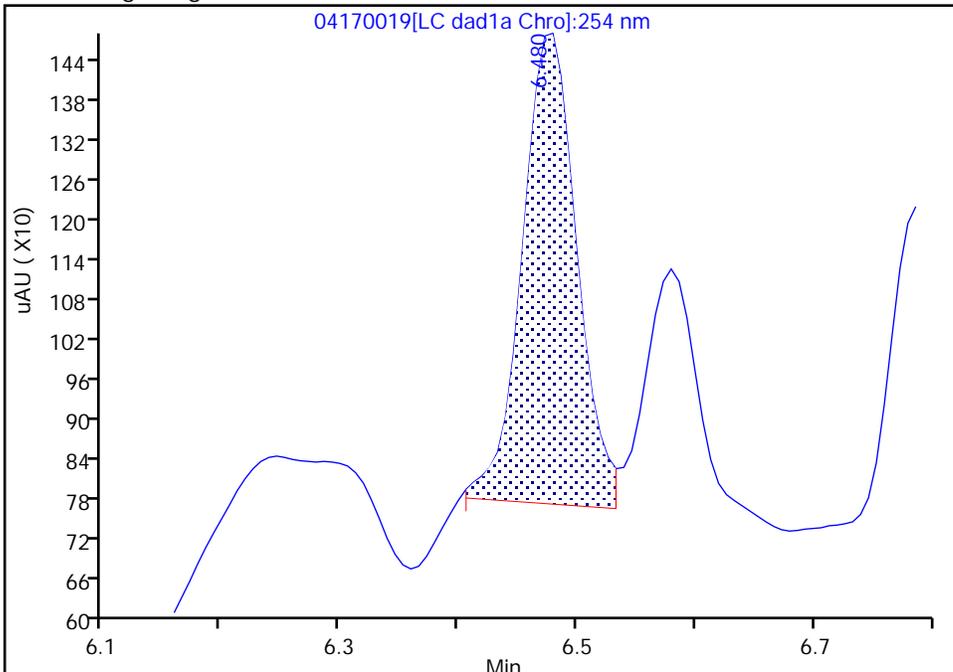
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

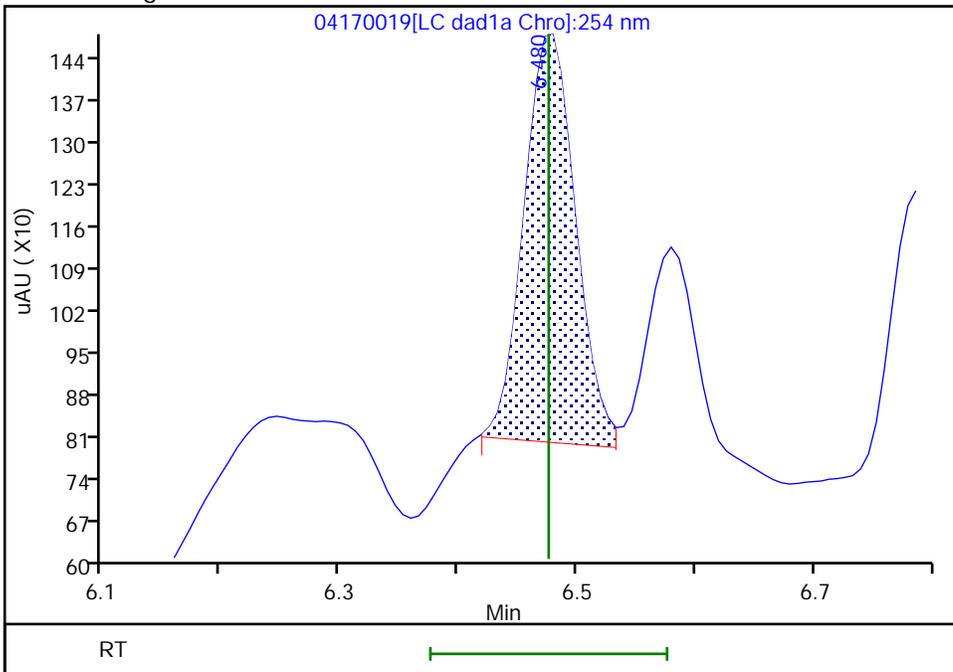
RT: 6.48
Area: 2278
Amount: 0.011305
Amount Units: ug/mL

Processing Integration Results



RT: 6.48
Area: 2051
Amount: 0.010307
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

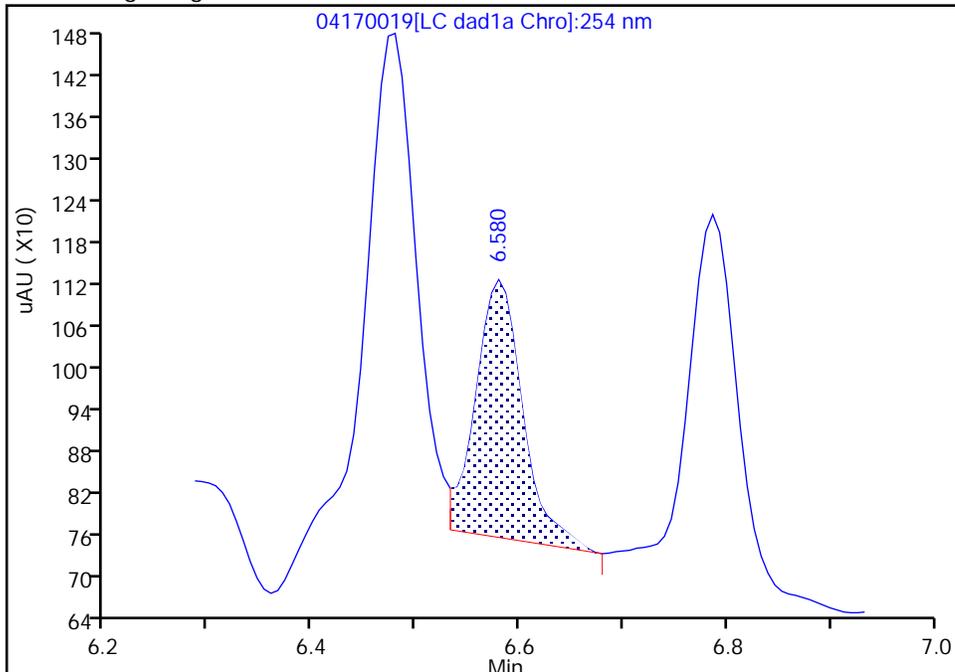
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
 Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
 Lims ID: IC INT/DMT 1
 Client ID:
 Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: 8330_X3 Limit Group: GCSV - 8330
 Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

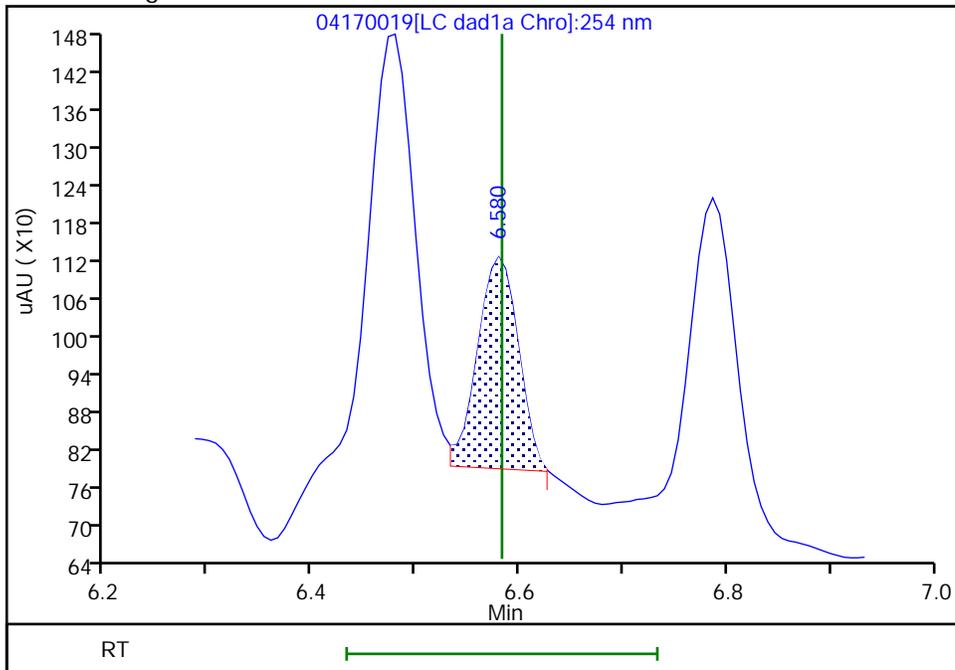
RT: 6.58
 Area: 1171
 Amount: 0.011907
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58
 Area: 919
 Amount: 0.009619
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:25 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

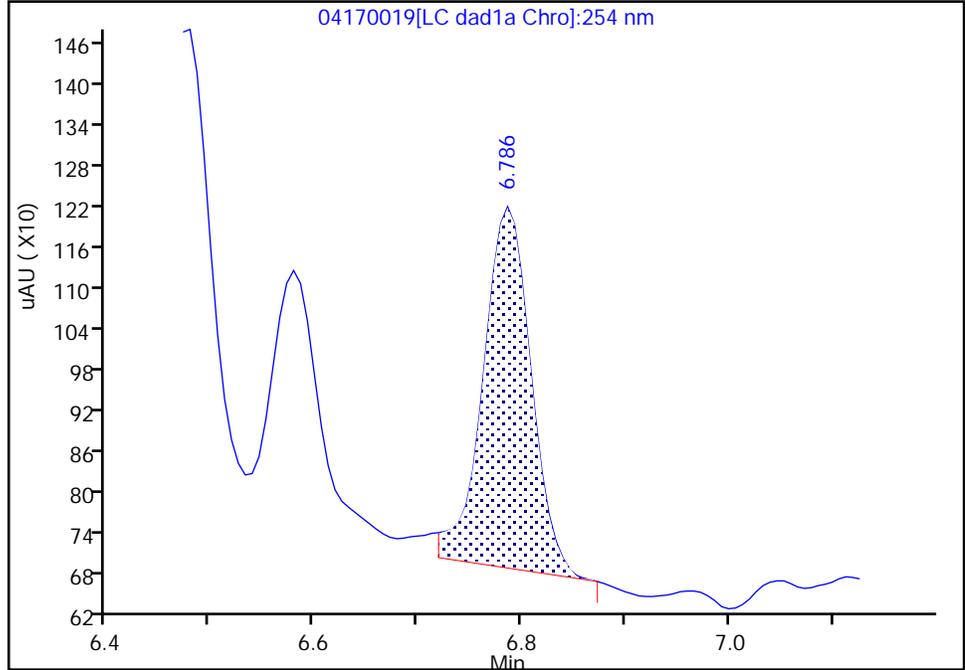
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

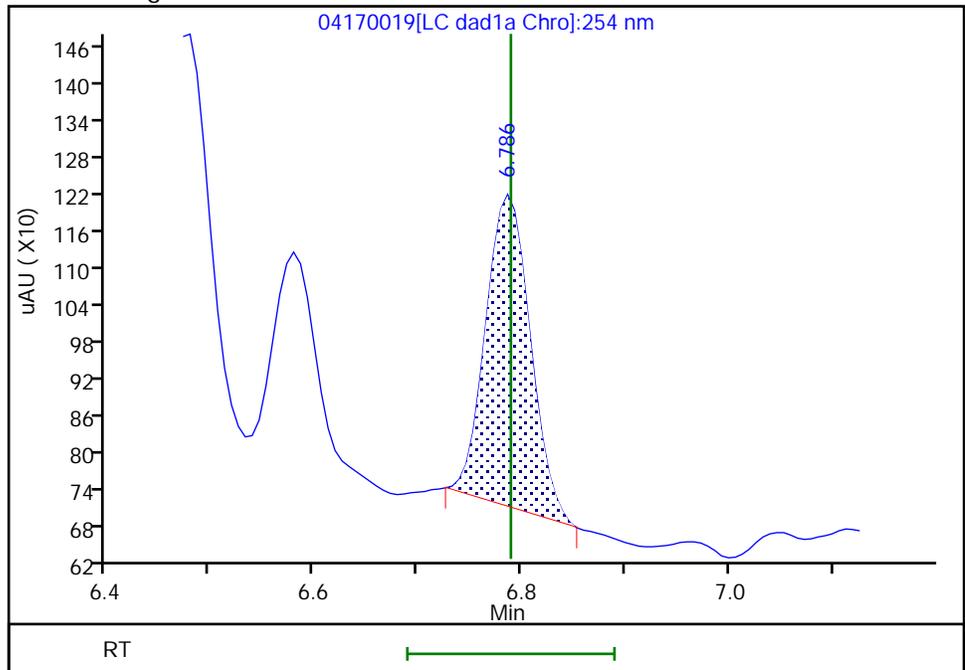
RT: 6.79
Area: 1700
Amount: 0.011386
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 1516
Amount: 0.010295
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:35 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

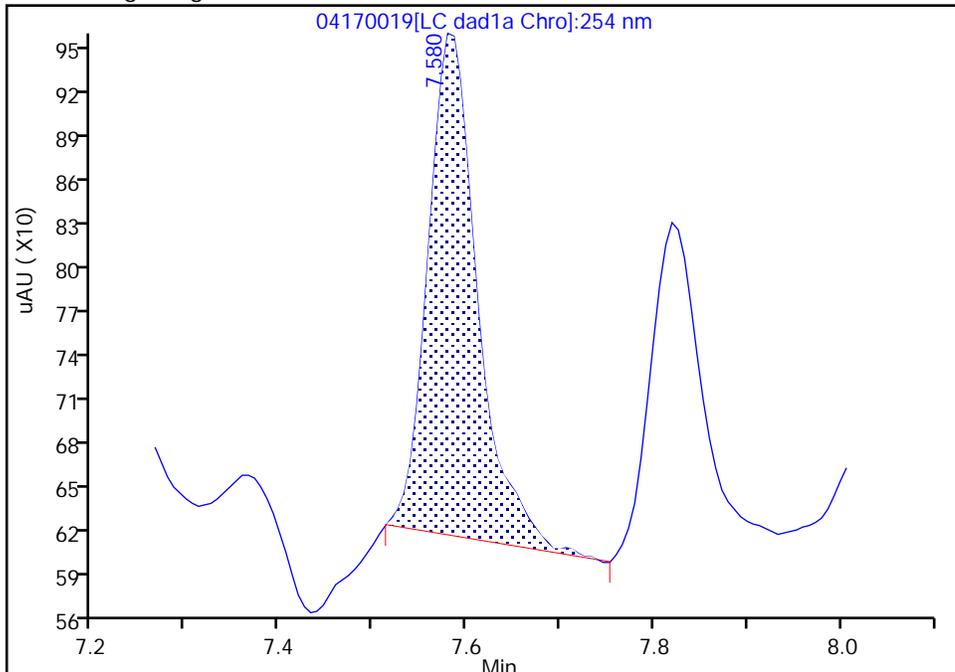
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

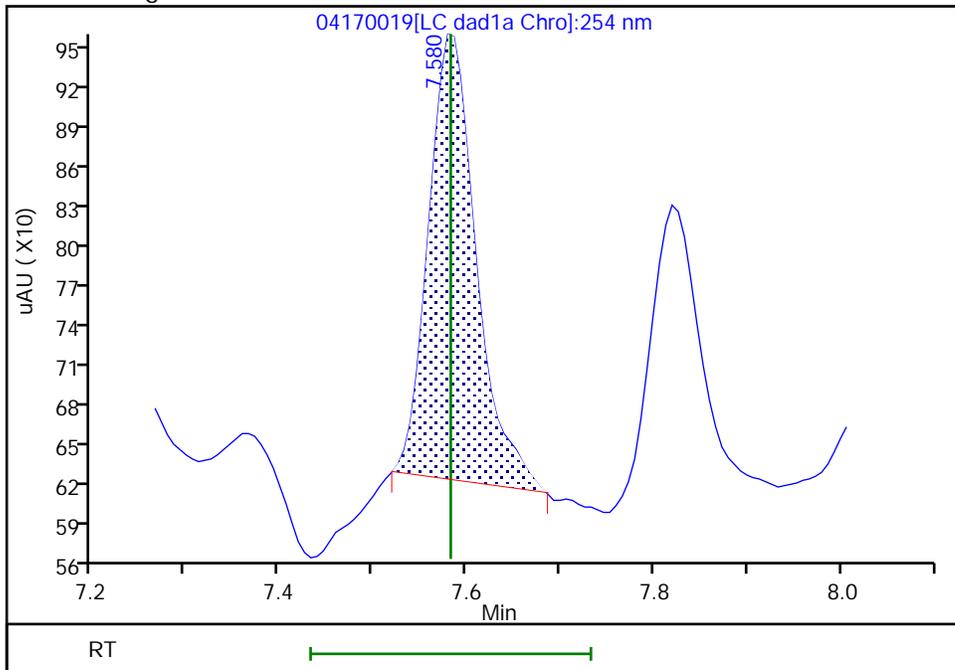
RT: 7.58
Area: 1262
Amount: 0.011308
Amount Units: ug/mL

Processing Integration Results



RT: 7.58
Area: 1187
Amount: 0.010716
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

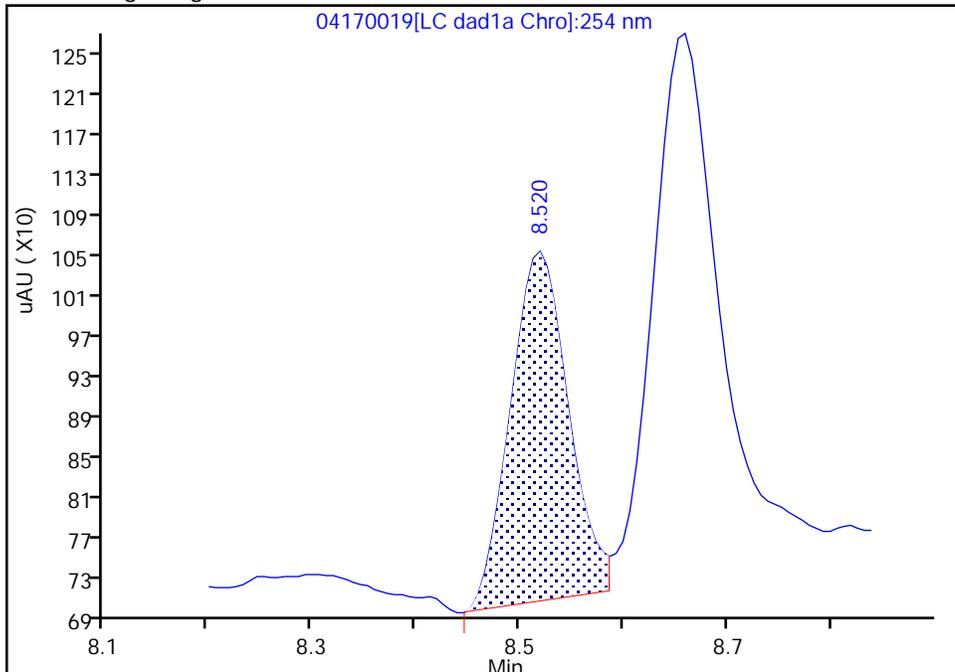
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

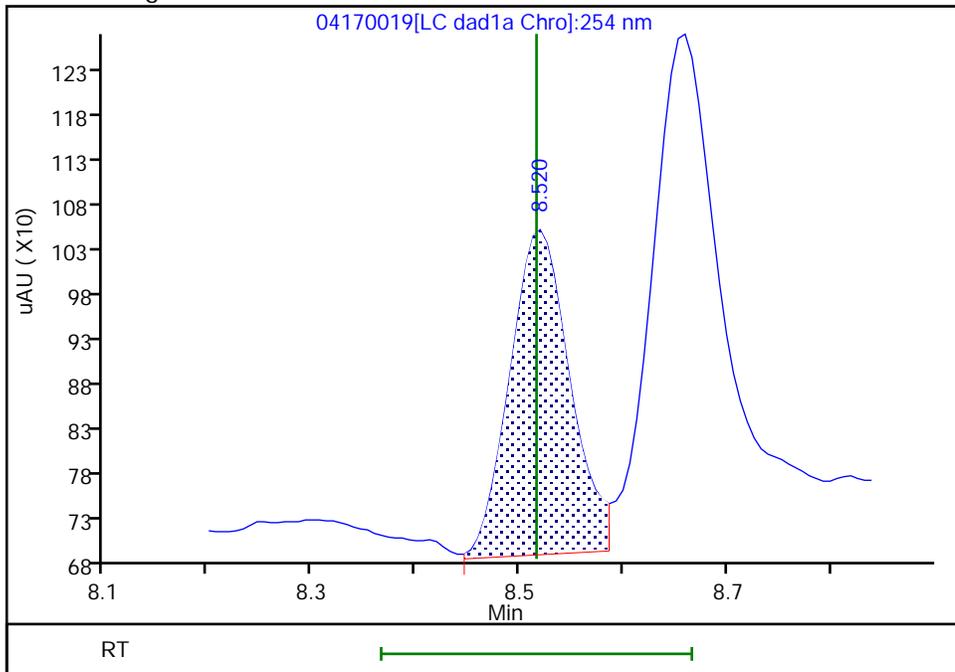
RT: 8.52
Area: 1357
Amount: 0.010216
Amount Units: ug/mL

Processing Integration Results



RT: 8.52
Area: 1445
Amount: 0.010265
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:23 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

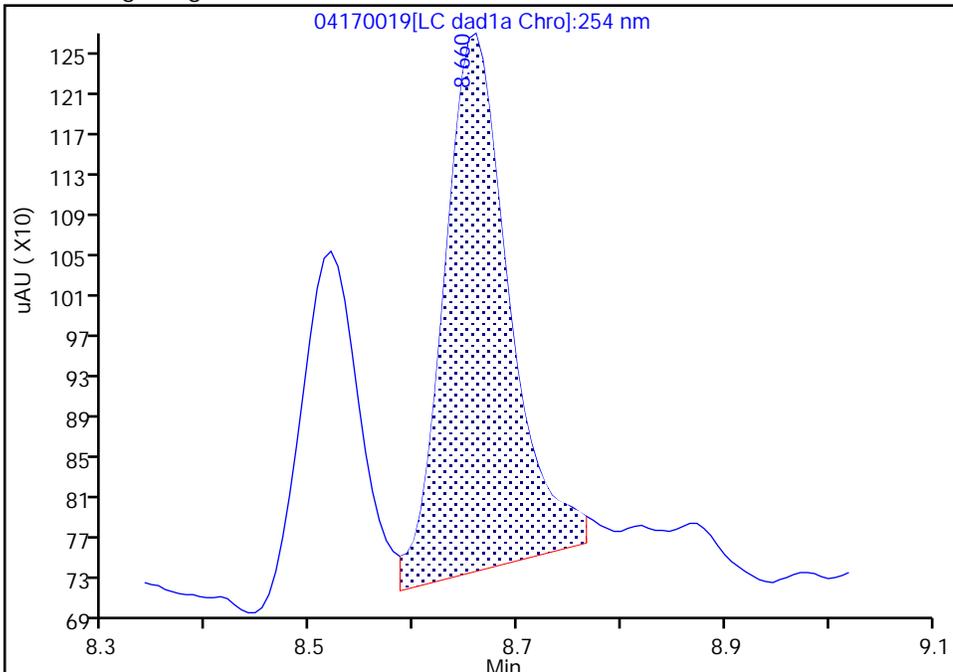
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

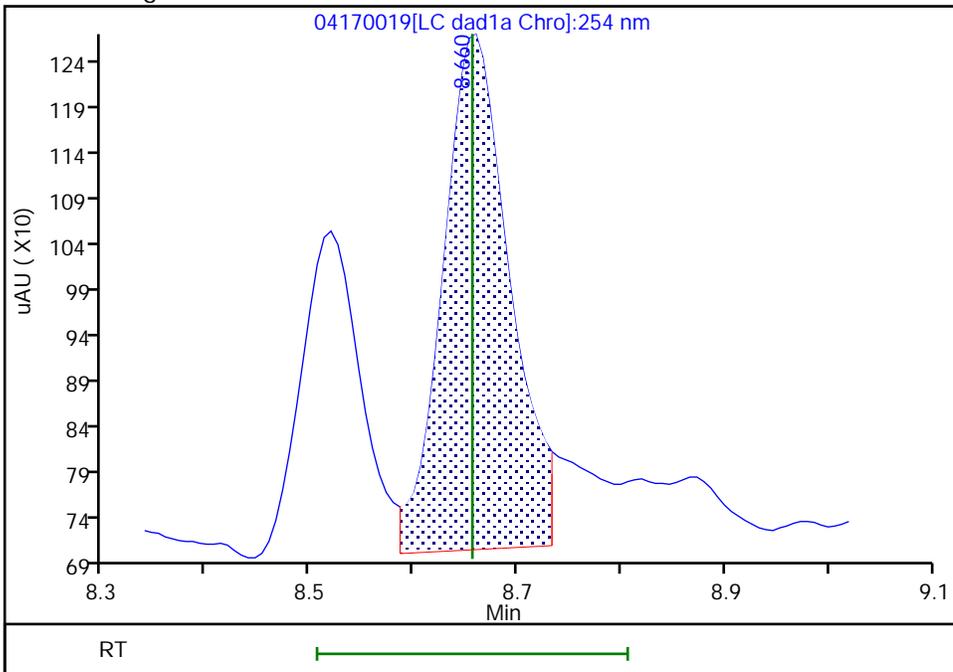
RT: 8.66
Area: 2346
Amount: 0.010661
Amount Units: ug/mL

Processing Integration Results



RT: 8.66
Area: 2549
Amount: 0.011438
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

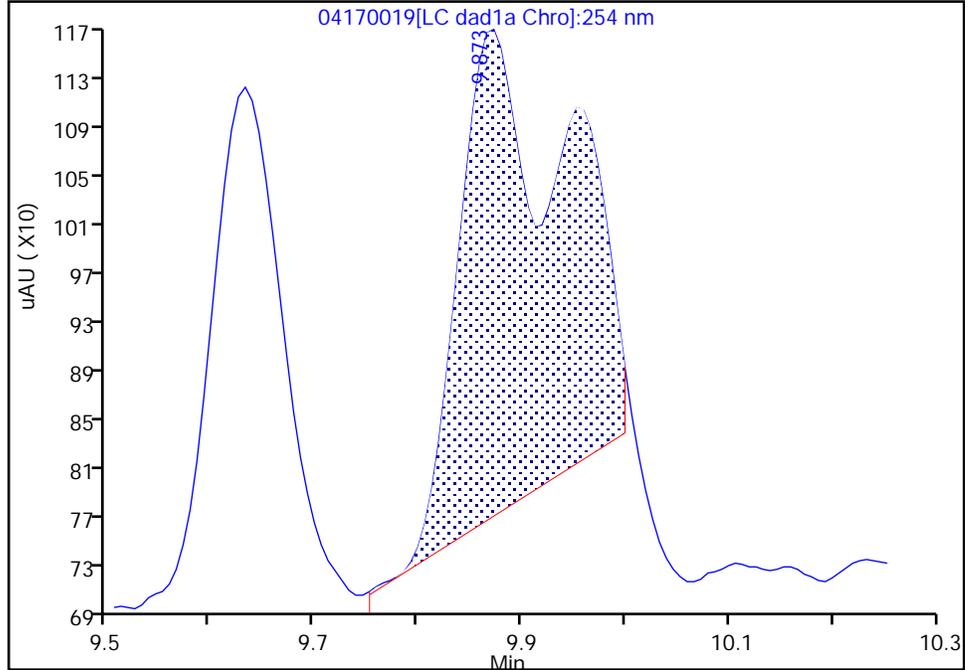
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

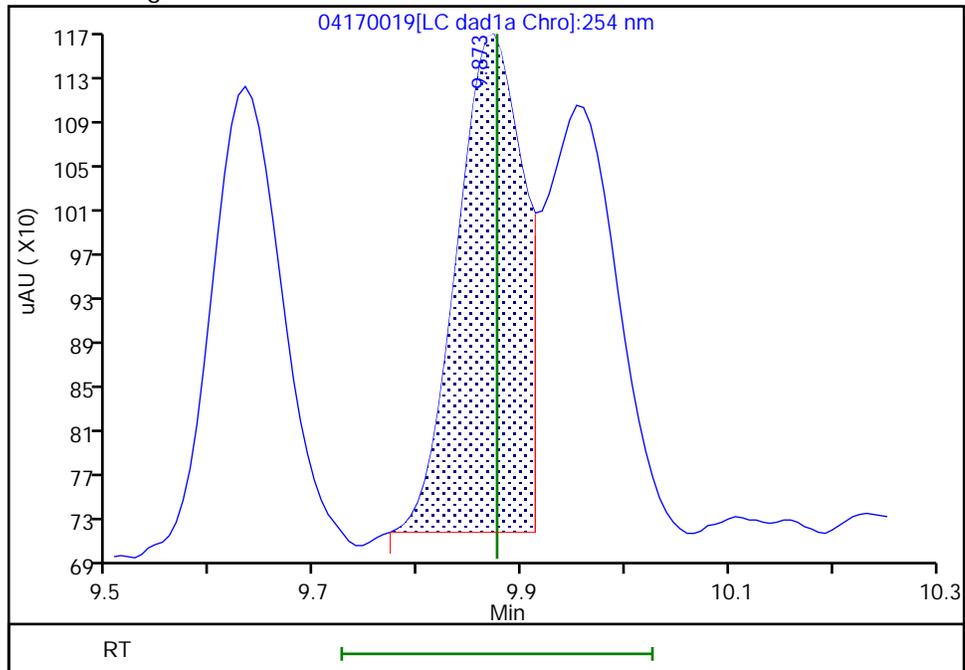
RT: 9.87
Area: 2822
Amount: 0.010781
Amount Units: ug/mL

Processing Integration Results



RT: 9.87
Area: 1971
Amount: 0.009992
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

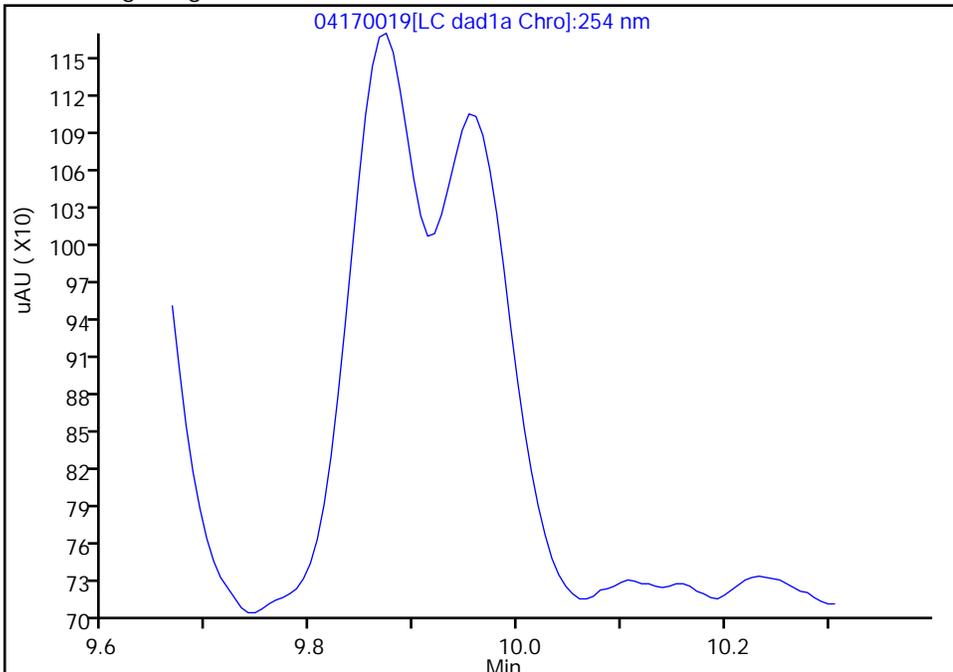
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8

Signal: 1

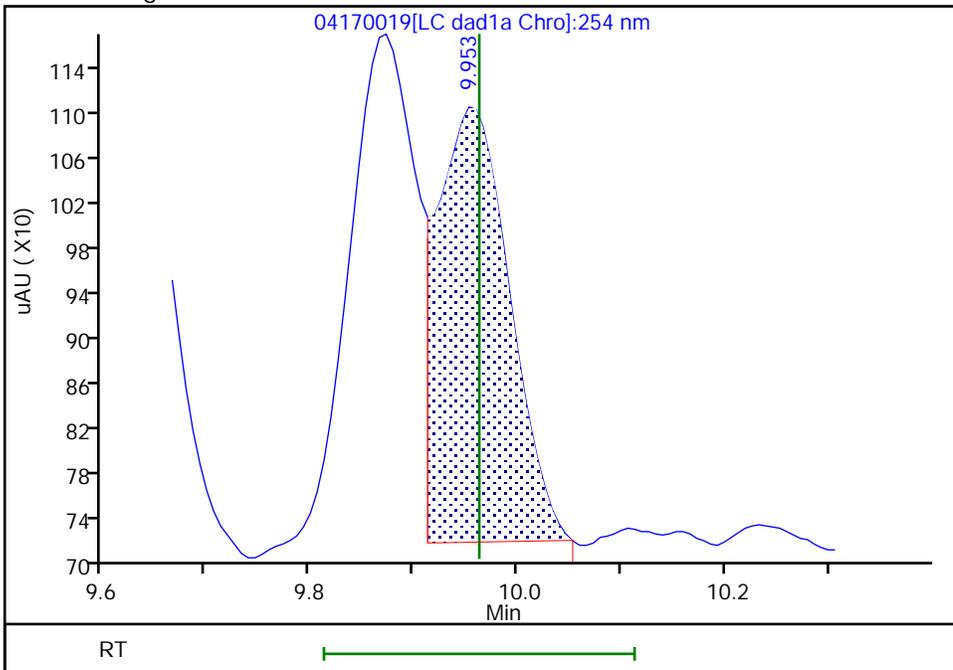
Not Detected
Expected RT: 9.96

Processing Integration Results



RT: 9.95
Area: 1835
Amount: 0.010105
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:04 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

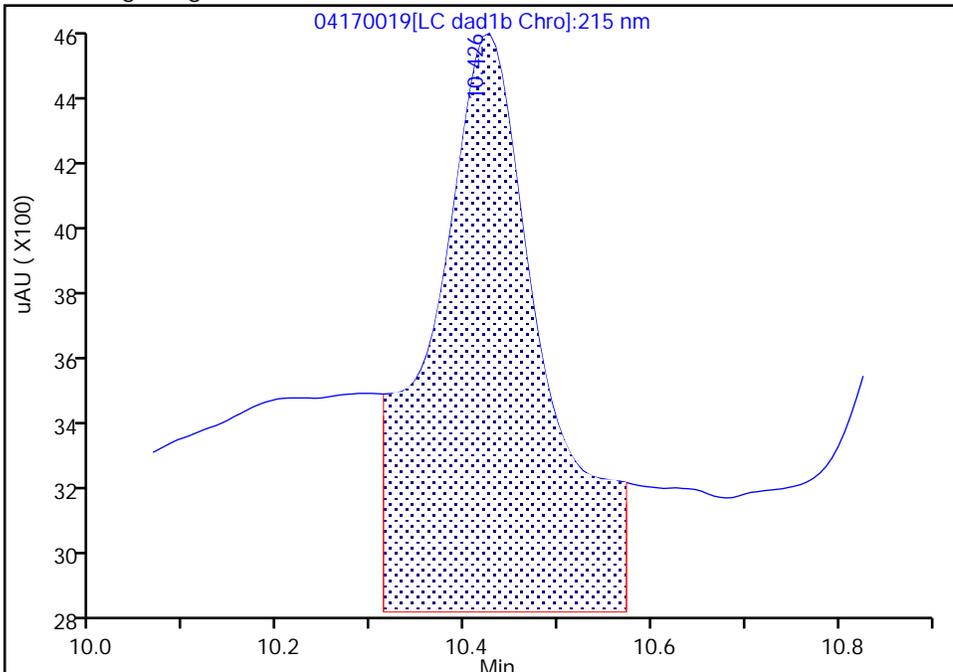
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

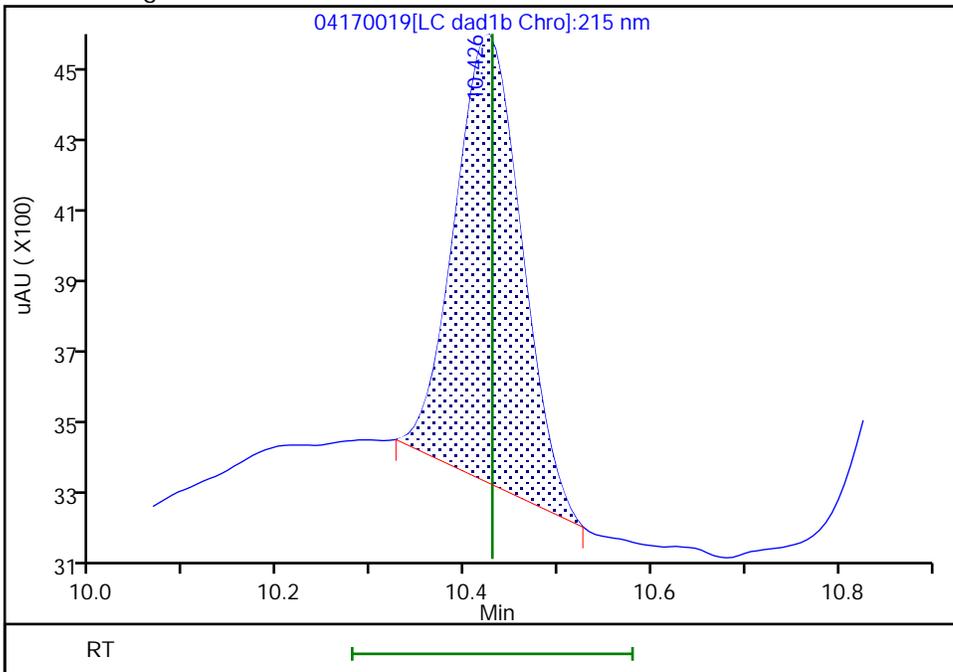
RT: 10.43
Area: 14354
Amount: 0.189635
Amount Units: ug/mL

Processing Integration Results



RT: 10.43
Area: 6048
Amount: 0.090997
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:39 -06:00:00 (UTC)
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

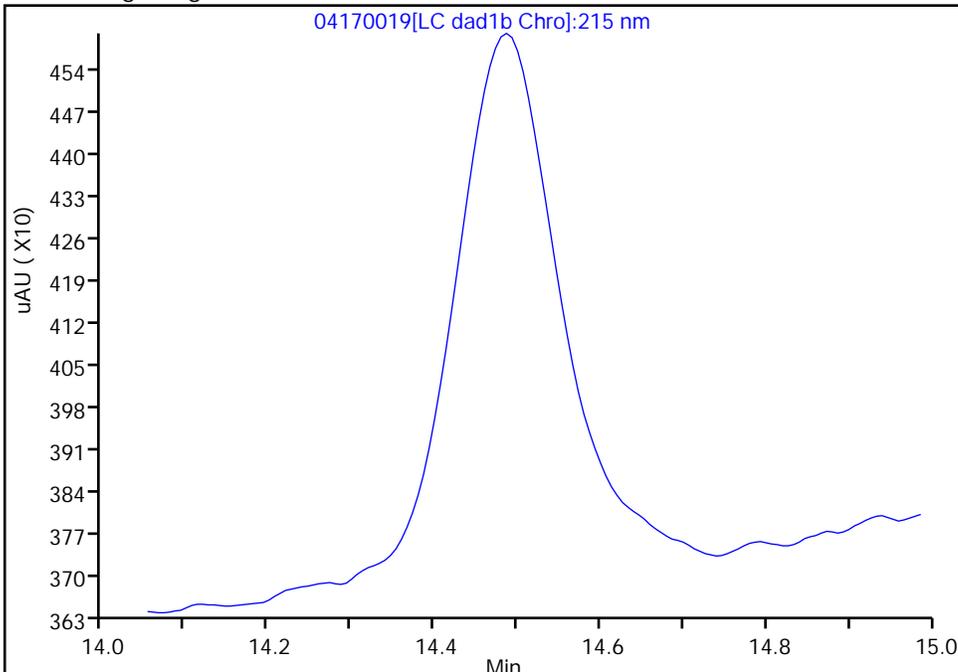
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

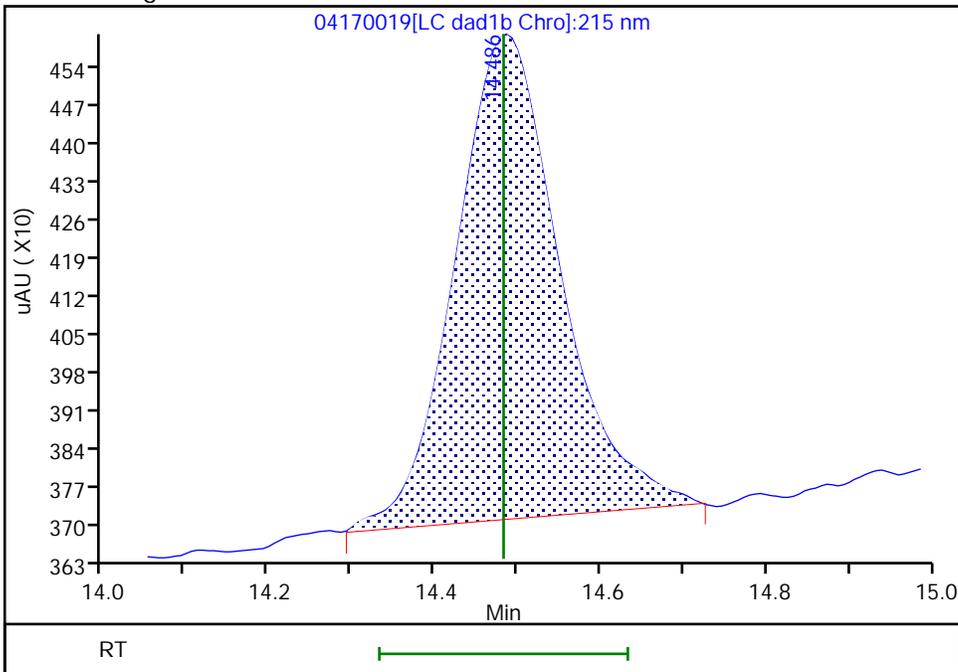
Not Detected
Expected RT: 14.48

Processing Integration Results



RT: 14.49
Area: 7807
Amount: 0.108526
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:47 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Calibration

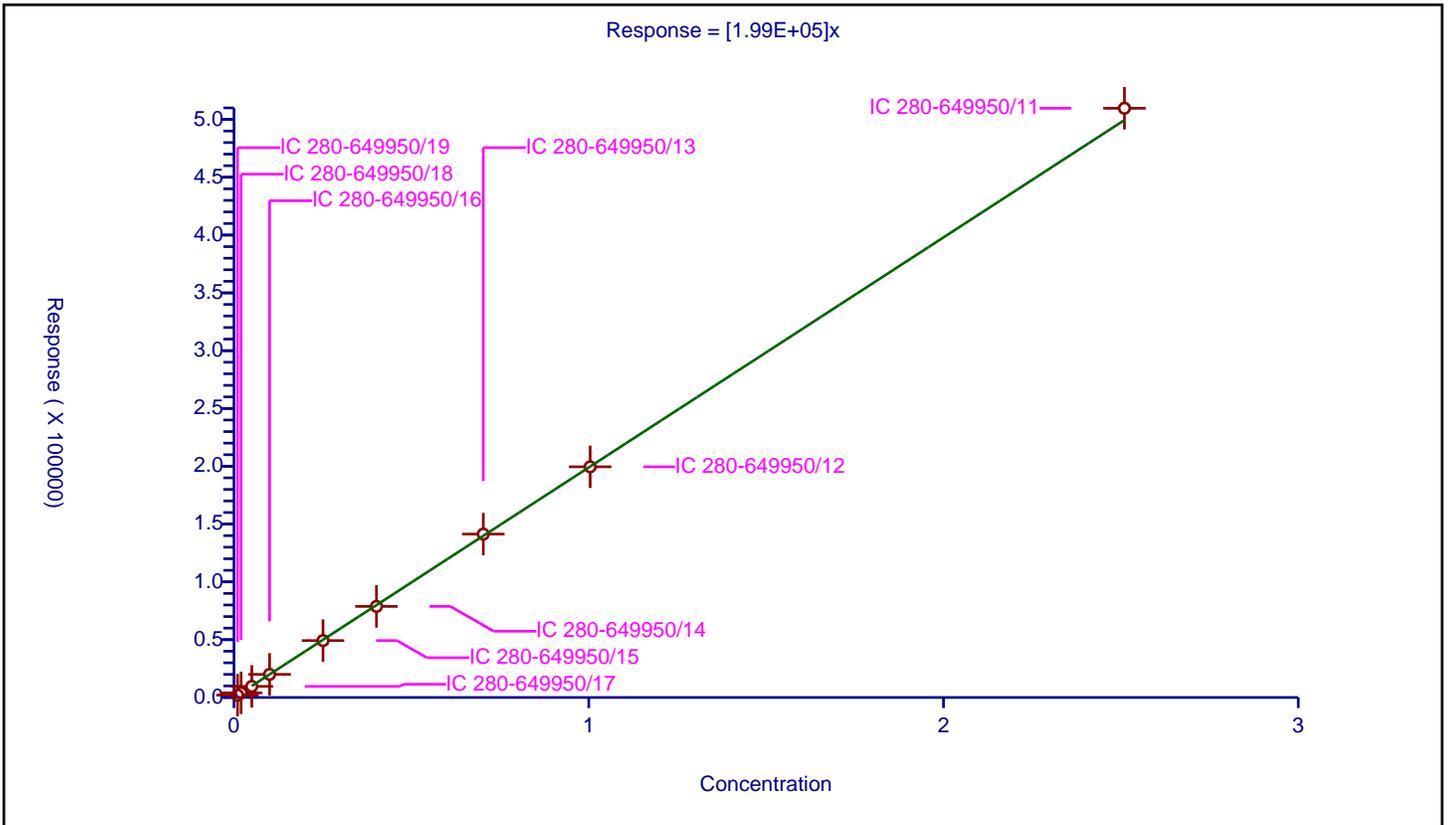
/ TNX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.99E+05

Error Coefficients	
Relative Standard Deviation:	1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01004	2051.0			204282.868526	Y
2	IC 280-649950/18	0.02008	4023.0			200348.605578	Y
3	IC 280-649950/17	0.0502	9628.0			191792.828685	Y
4	IC 280-649950/16	0.1004	20006.0			199262.948207	Y
5	IC 280-649950/15	0.251	49234.0			196151.394422	Y
6	IC 280-649950/14	0.4016	78789.0			196187.749004	Y
7	IC 280-649950/13	0.7028	141333.0			201099.88617	Y
8	IC 280-649950/12	1.004	199537.0			198742.031873	Y
9	IC 280-649950/11	2.51	509682.0			203060.557769	Y



Calibration

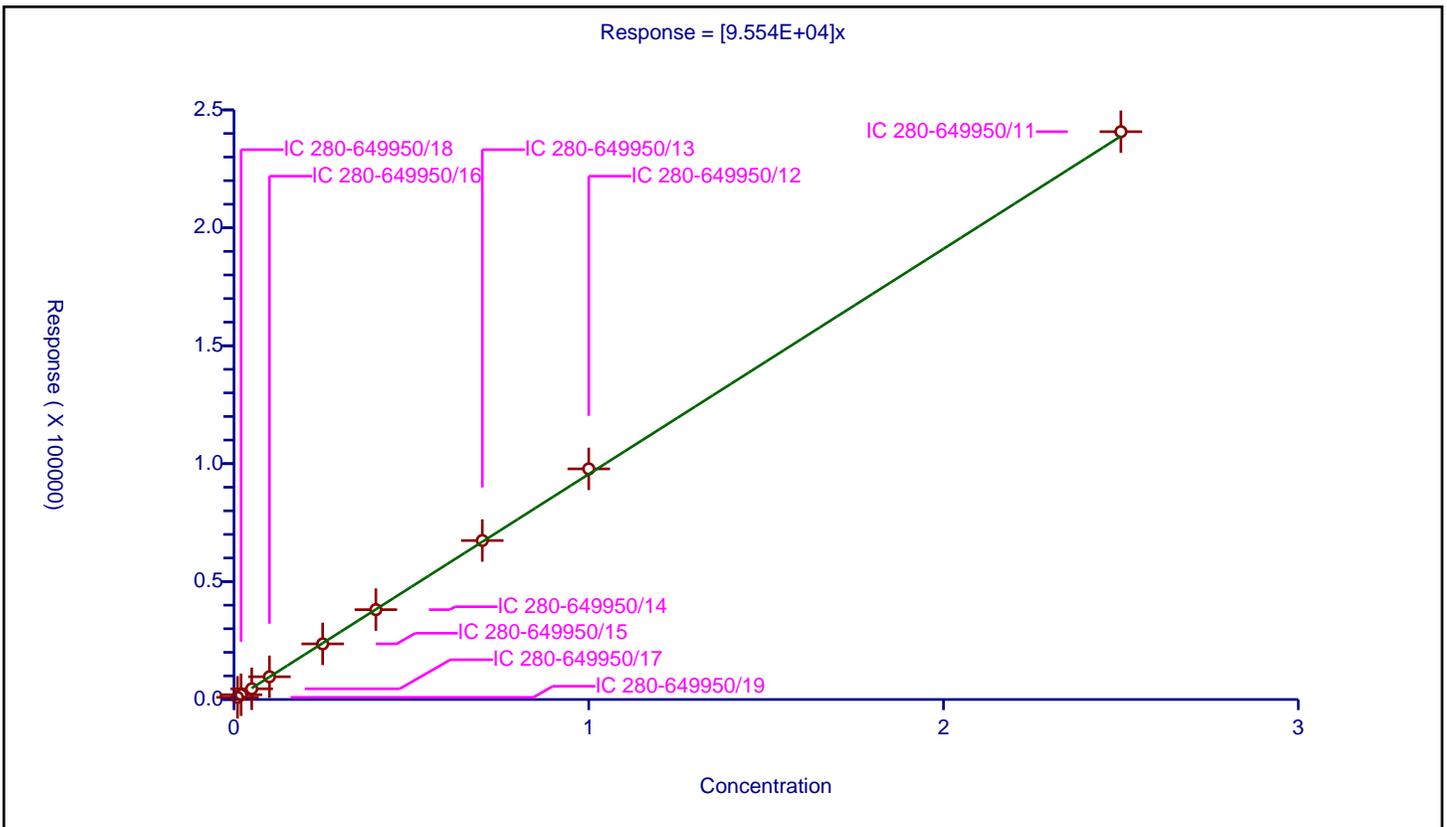
/ HMX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	9.554E+04

Error Coefficients	
Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	919.0			91900.0	Y
2	IC 280-649950/18	0.02	2017.0			100850.0	Y
3	IC 280-649950/17	0.05	4536.0			90720.0	Y
4	IC 280-649950/16	0.1	9645.0			96450.0	Y
5	IC 280-649950/15	0.25	23583.0			94332.0	Y
6	IC 280-649950/14	0.4	38101.0			95252.5	Y
7	IC 280-649950/13	0.7	67408.0			96297.142857	Y
8	IC 280-649950/12	1.0	97787.0			97787.0	Y
9	IC 280-649950/11	2.5	240762.0			96304.8	Y



Calibration

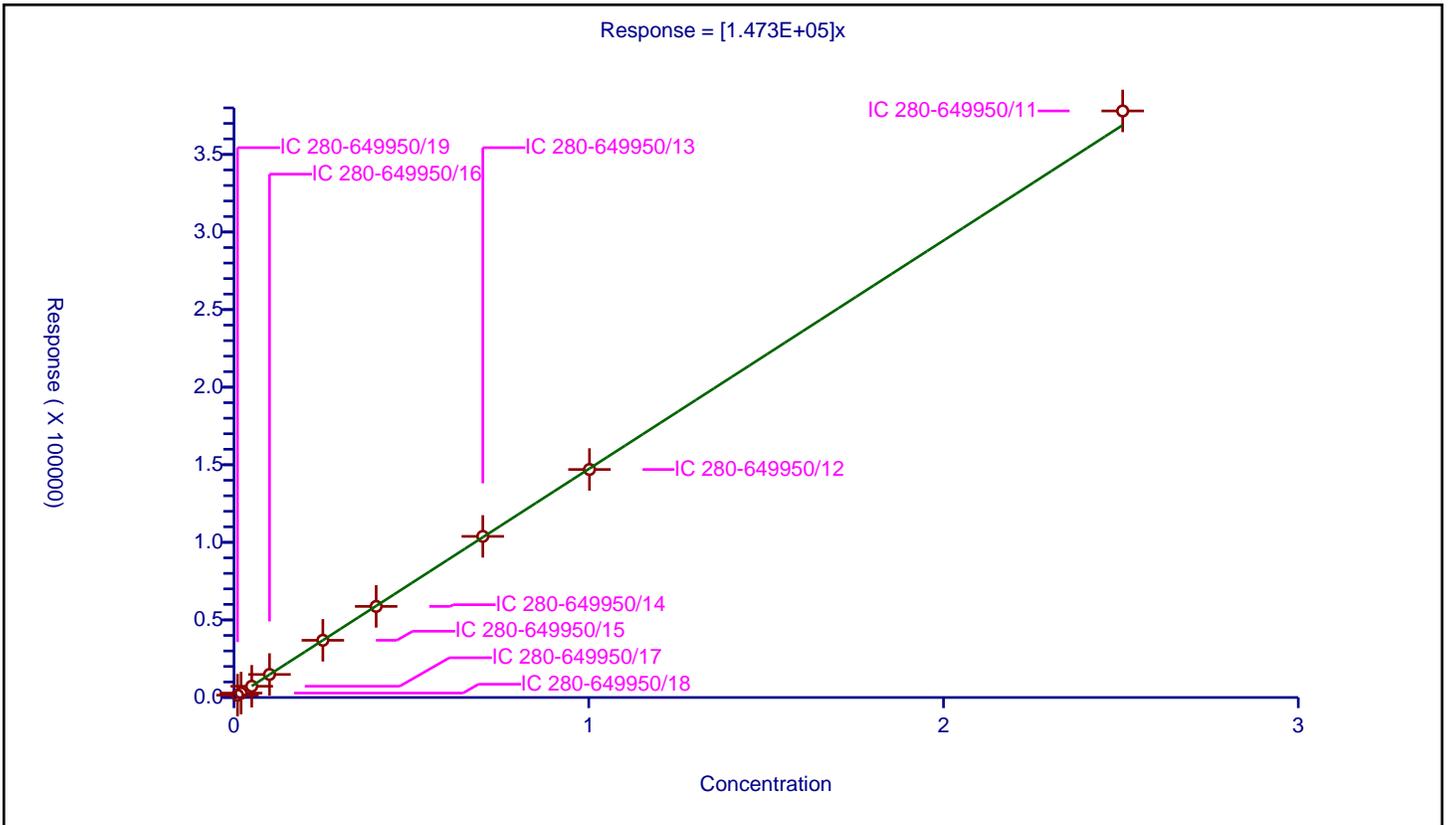
/ DNX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.473E+05

Error Coefficients	
Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01002	1516.0			151297.40519	Y
2	IC 280-649950/18	0.02004	2843.0			141866.267465	Y
3	IC 280-649950/17	0.0501	7258.0			144870.259481	Y
4	IC 280-649950/16	0.1002	14834.0			148043.912176	Y
5	IC 280-649950/15	0.2505	36872.0			147193.612774	Y
6	IC 280-649950/14	0.4008	58701.0			146459.580838	Y
7	IC 280-649950/13	0.7014	103834.0			148038.209296	Y
8	IC 280-649950/12	1.002	146952.0			146658.682635	Y
9	IC 280-649950/11	2.505	378026.0			150908.582834	Y



Calibration

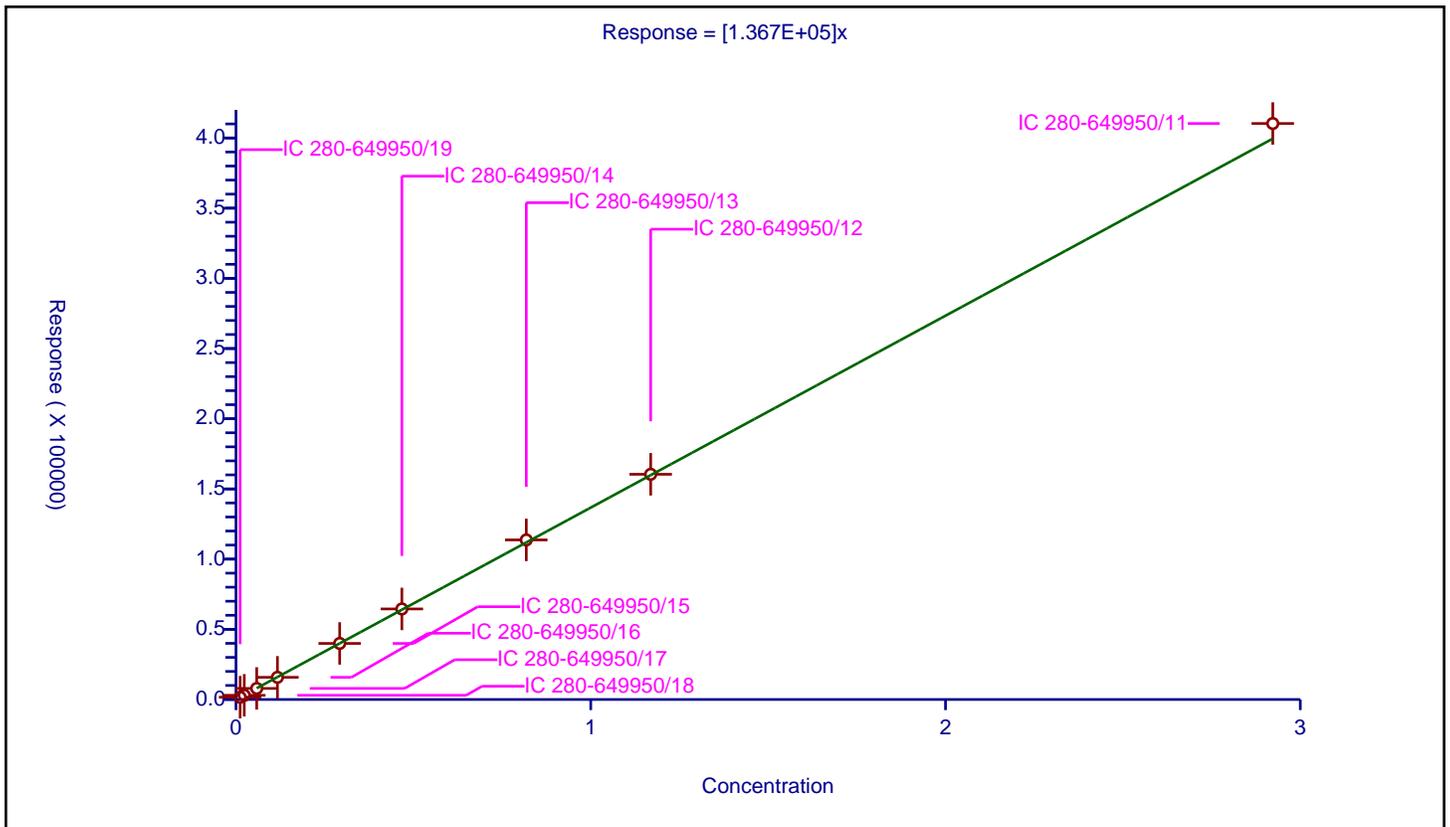
/ MNX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.367E+05

Error Coefficients	
Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01169	1649.0			141060.735672	Y
2	IC 280-649950/18	0.02338	2991.0			127929.854577	Y
3	IC 280-649950/17	0.05845	7887.0			134935.842601	Y
4	IC 280-649950/16	0.1169	15807.0			135218.135158	Y
5	IC 280-649950/15	0.29225	39930.0			136629.597947	Y
6	IC 280-649950/14	0.4676	64510.0			137959.794696	Y
7	IC 280-649950/13	0.8183	113678.0			138919.711597	Y
8	IC 280-649950/12	1.169	160428.0			137235.243798	Y
9	IC 280-649950/11	2.9225	410302.0			140394.183062	Y



Calibration

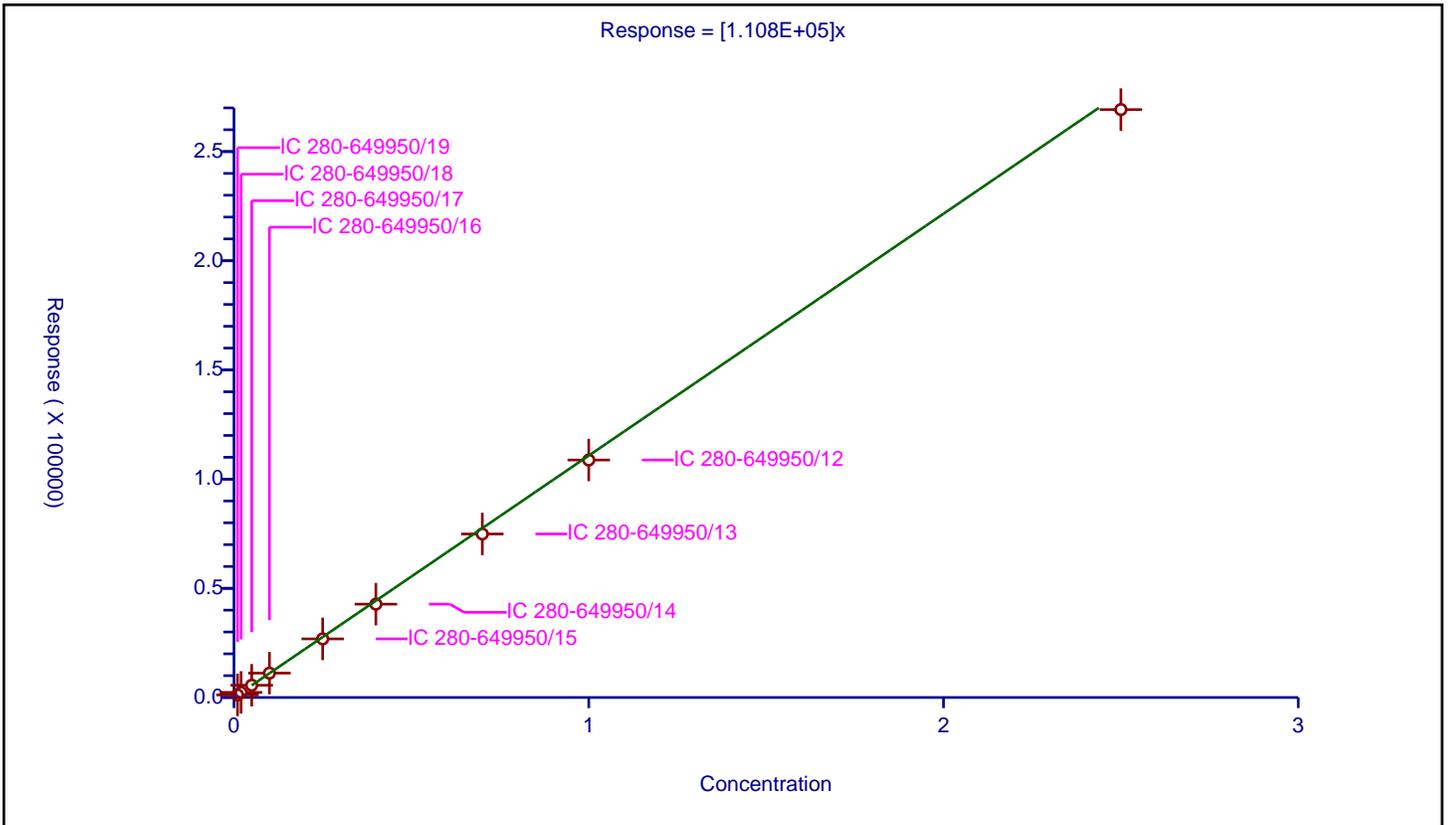
/ RDX

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.108E+05

Error Coefficients	
Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1187.0			118700.0	Y
2	IC 280-649950/18	0.02	2334.0			116700.0	Y
3	IC 280-649950/17	0.05	5612.0			112240.0	Y
4	IC 280-649950/16	0.1	11162.0			111620.0	Y
5	IC 280-649950/15	0.25	26844.0			107376.0	Y
6	IC 280-649950/14	0.4	42747.0			106867.5	Y
7	IC 280-649950/13	0.7	74871.0			106958.571429	Y
8	IC 280-649950/12	1.0	108752.0			108752.0	Y
9	IC 280-649950/11	2.5	269224.0			107689.6	Y



Calibration

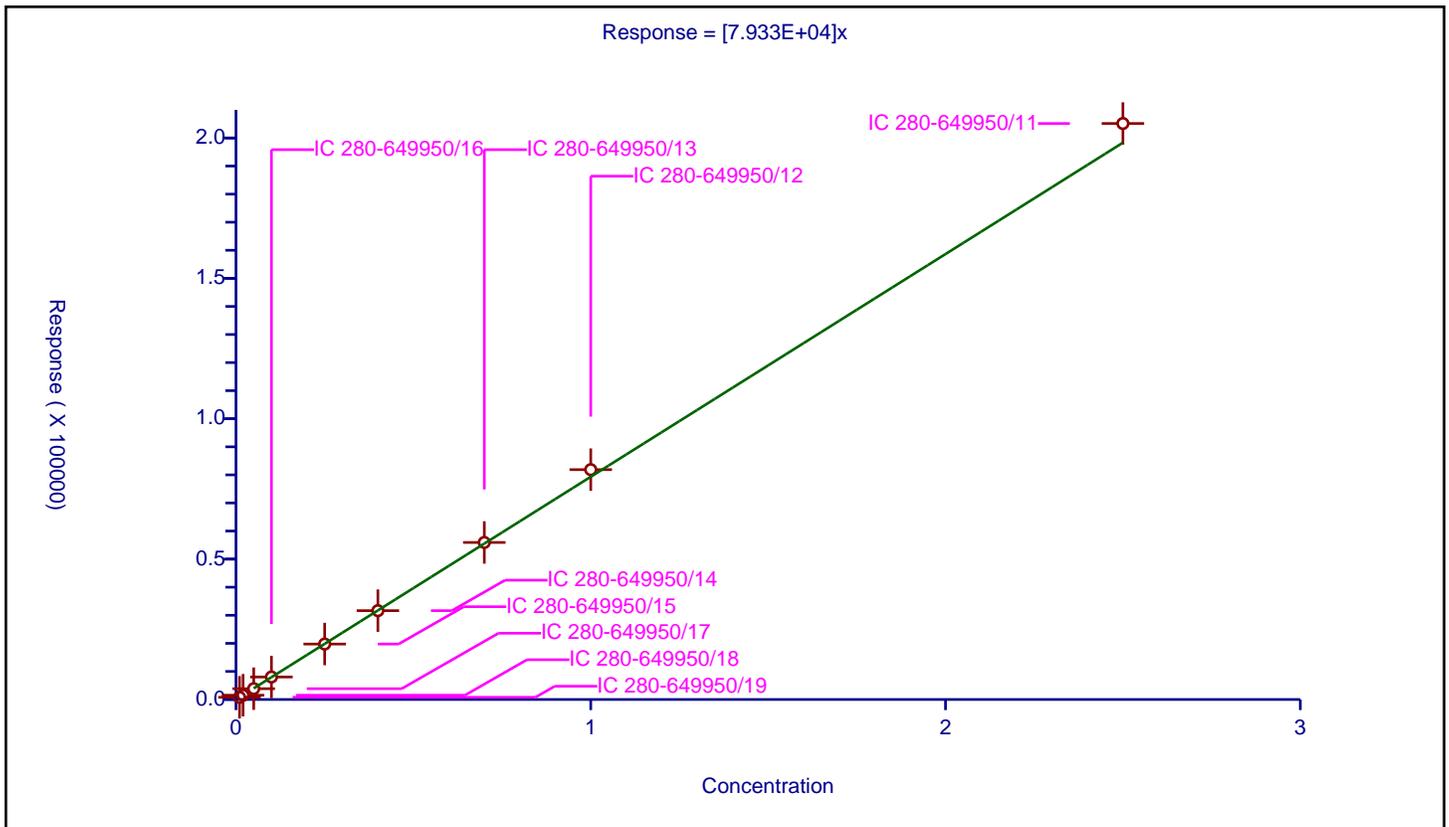
/ 2,4,6-Trinitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	7.933E+04

Error Coefficients	
Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	787.0			78700.0	Y
2	IC 280-649950/18	0.02	1524.0			76200.0	Y
3	IC 280-649950/17	0.05	3847.0			76940.0	Y
4	IC 280-649950/16	0.1	8016.0			80160.0	Y
5	IC 280-649950/15	0.25	19748.0			78992.0	Y
6	IC 280-649950/14	0.4	31644.0			79110.0	Y
7	IC 280-649950/13	0.7	55934.0			79905.714286	Y
8	IC 280-649950/12	1.0	81861.0			81861.0	Y
9	IC 280-649950/11	2.5	205156.0			82062.4	Y



Calibration

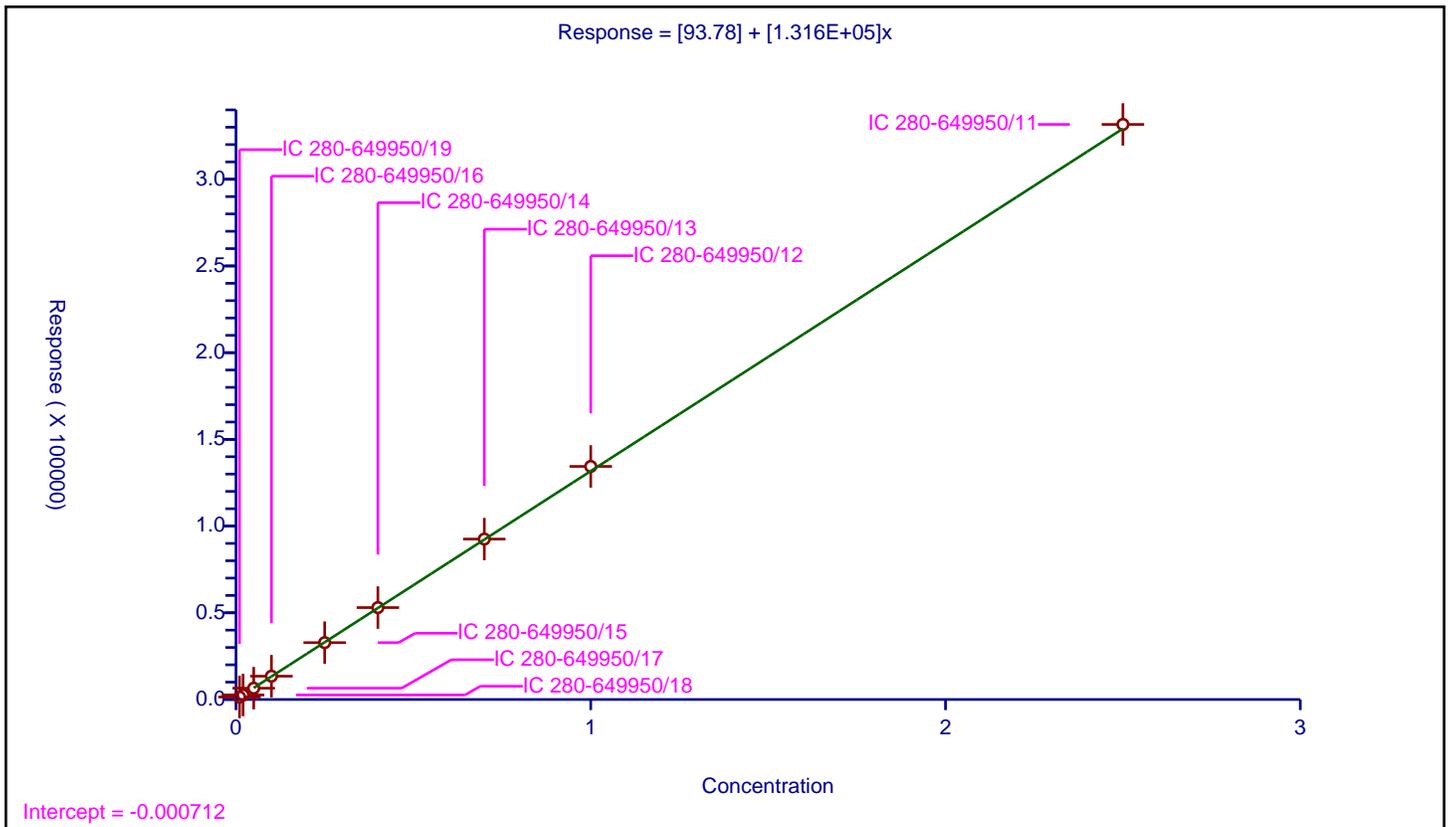
/ 1,2-Dinitrobenzene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	93.78
Slope:	1.316E+05

Error Coefficients	
Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1445.0			144500.0	Y
2	IC 280-649950/18	0.02	2603.0			130150.0	Y
3	IC 280-649950/17	0.05	6521.0			130420.0	Y
4	IC 280-649950/16	0.1	13450.0			134500.0	Y
5	IC 280-649950/15	0.25	32787.0			131148.0	Y
6	IC 280-649950/14	0.4	52999.0			132497.5	Y
7	IC 280-649950/13	0.7	92511.0			132158.571429	Y
8	IC 280-649950/12	1.0	134411.0			134411.0	Y
9	IC 280-649950/11	2.5	331618.0			132647.2	Y



Calibration

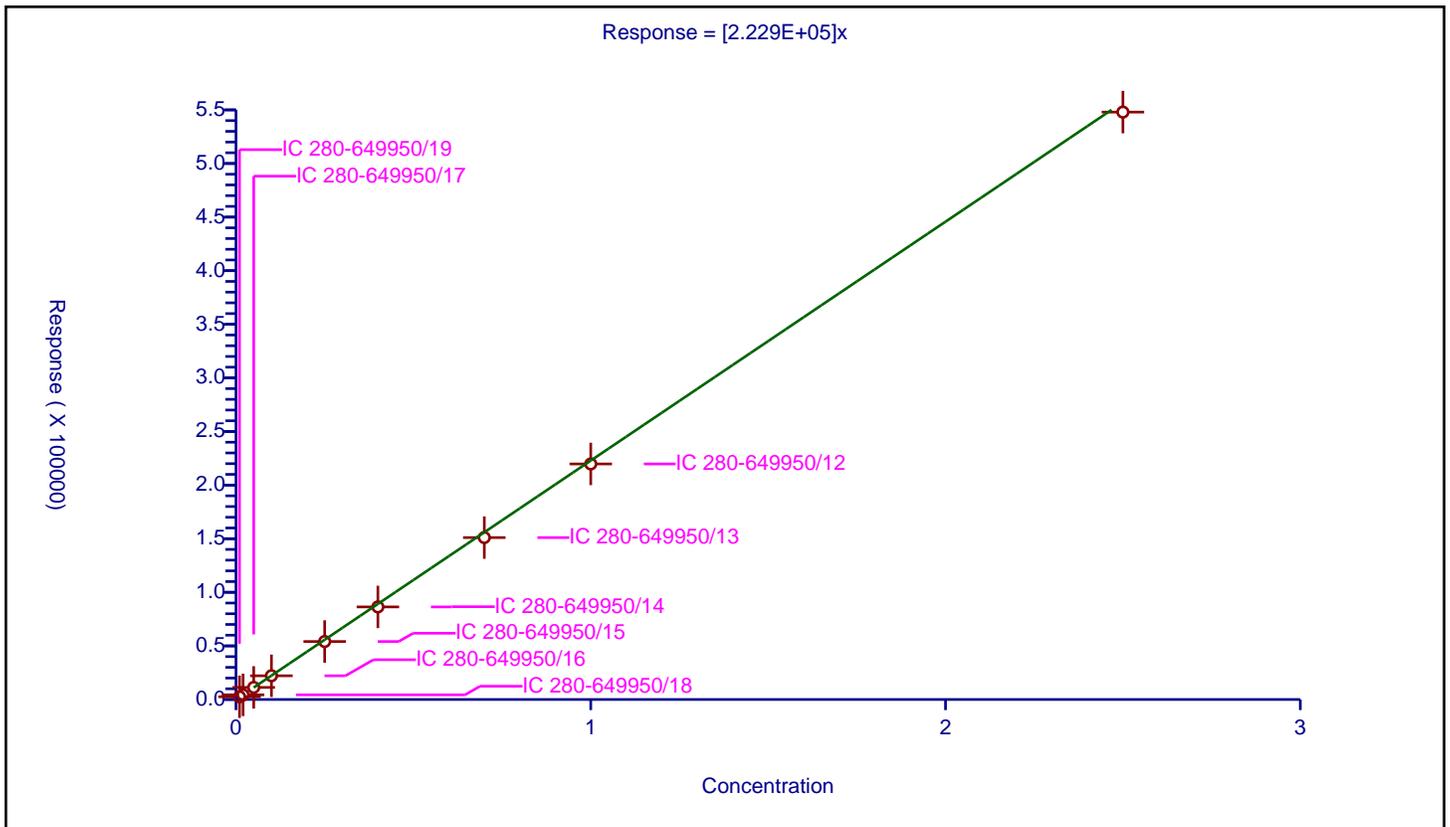
/ 1,3,5-Trinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.229E+05

Error Coefficients	
Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2549.0			254900.0	Y
2	IC 280-649950/18	0.02	4349.0			217450.0	Y
3	IC 280-649950/17	0.05	11258.0			225160.0	Y
4	IC 280-649950/16	0.1	22129.0			221290.0	Y
5	IC 280-649950/15	0.25	54073.0			216292.0	Y
6	IC 280-649950/14	0.4	86362.0			215905.0	Y
7	IC 280-649950/13	0.7	151045.0			215778.571429	Y
8	IC 280-649950/12	1.0	219723.0			219723.0	Y
9	IC 280-649950/11	2.5	547952.0			219180.8	Y



Calibration

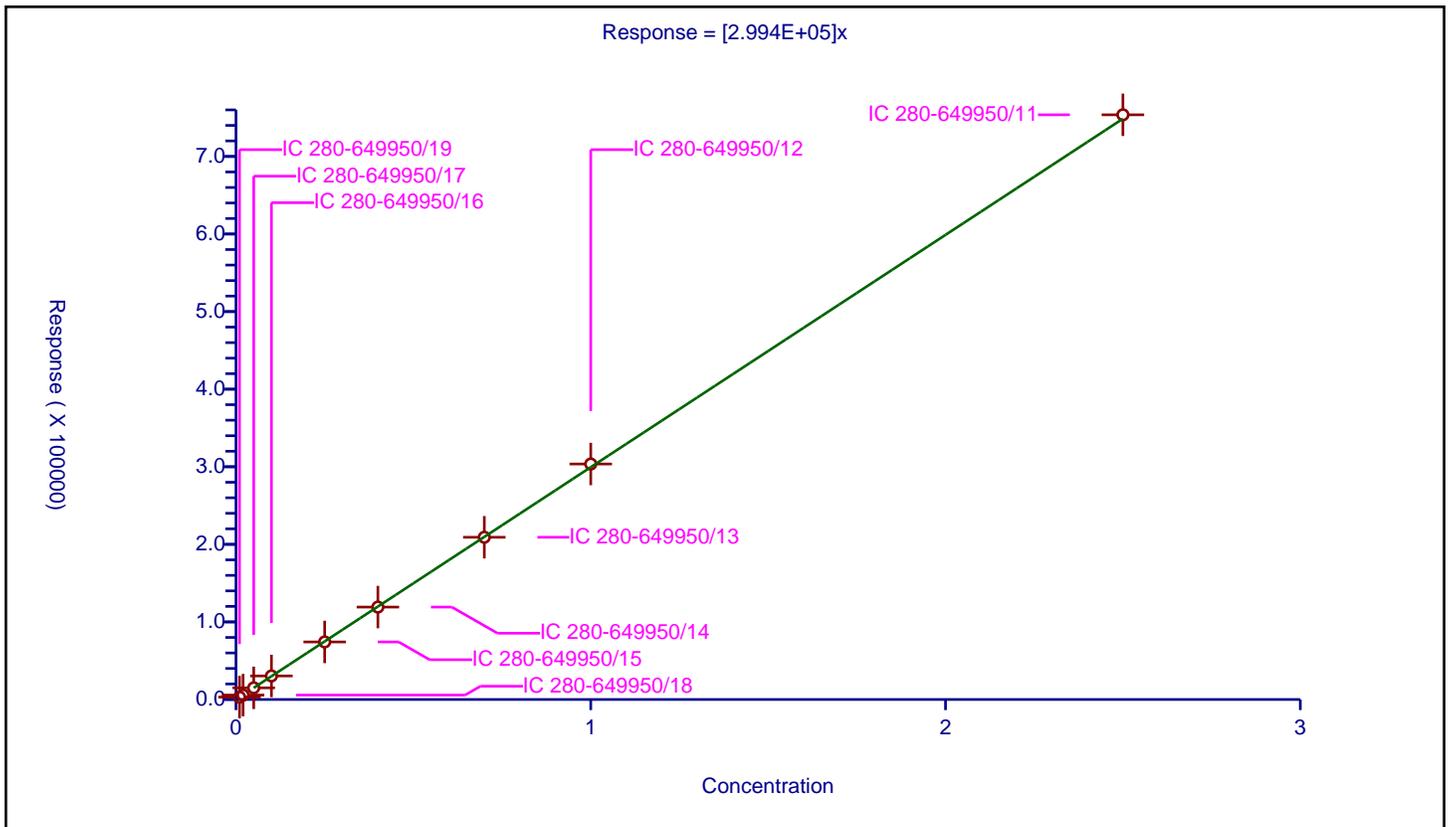
/ 1,3-Dinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.994E+05

Error Coefficients	
Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	3086.0			308600.0	Y
2	IC 280-649950/18	0.02	5678.0			283900.0	Y
3	IC 280-649950/17	0.05	15023.0			300460.0	Y
4	IC 280-649950/16	0.1	30359.0			303590.0	Y
5	IC 280-649950/15	0.25	74190.0			296760.0	Y
6	IC 280-649950/14	0.4	119137.0			297842.5	Y
7	IC 280-649950/13	0.7	209122.0			298745.714286	Y
8	IC 280-649950/12	1.0	303550.0			303550.0	Y
9	IC 280-649950/11	2.5	753680.0			301472.0	Y



Calibration

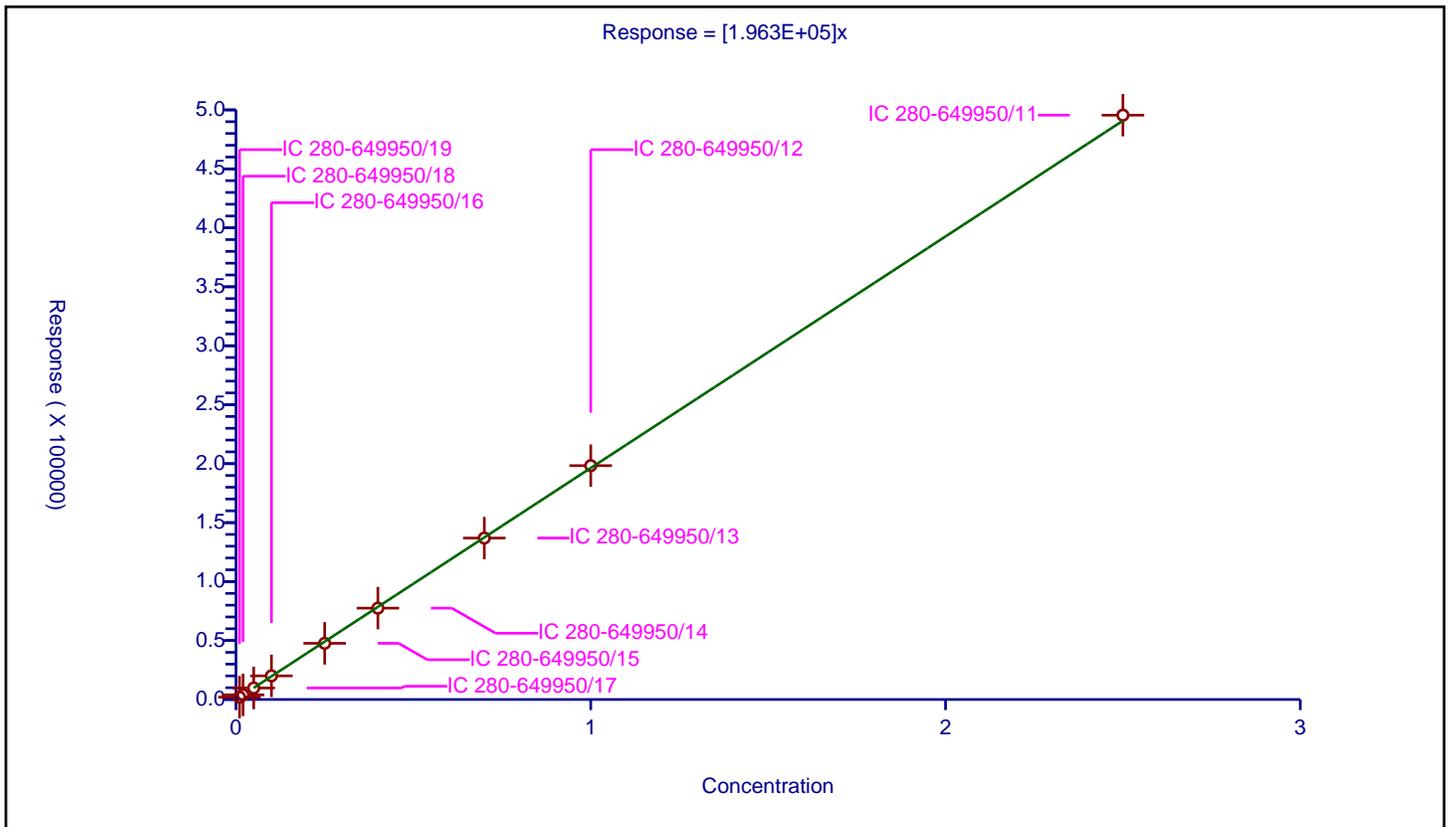
/ Nitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.963E+05

Error Coefficients	
Relative Standard Deviation:	1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1985.0			198500.0	Y
2	IC 280-649950/18	0.02	3932.0			196600.0	Y
3	IC 280-649950/17	0.05	9759.0			195180.0	Y
4	IC 280-649950/16	0.1	20035.0			200350.0	Y
5	IC 280-649950/15	0.25	47641.0			190564.0	Y
6	IC 280-649950/14	0.4	77471.0			193677.5	Y
7	IC 280-649950/13	0.7	136899.0			195570.0	Y
8	IC 280-649950/12	1.0	198305.0			198305.0	Y
9	IC 280-649950/11	2.5	495535.0			198214.0	Y



Calibration

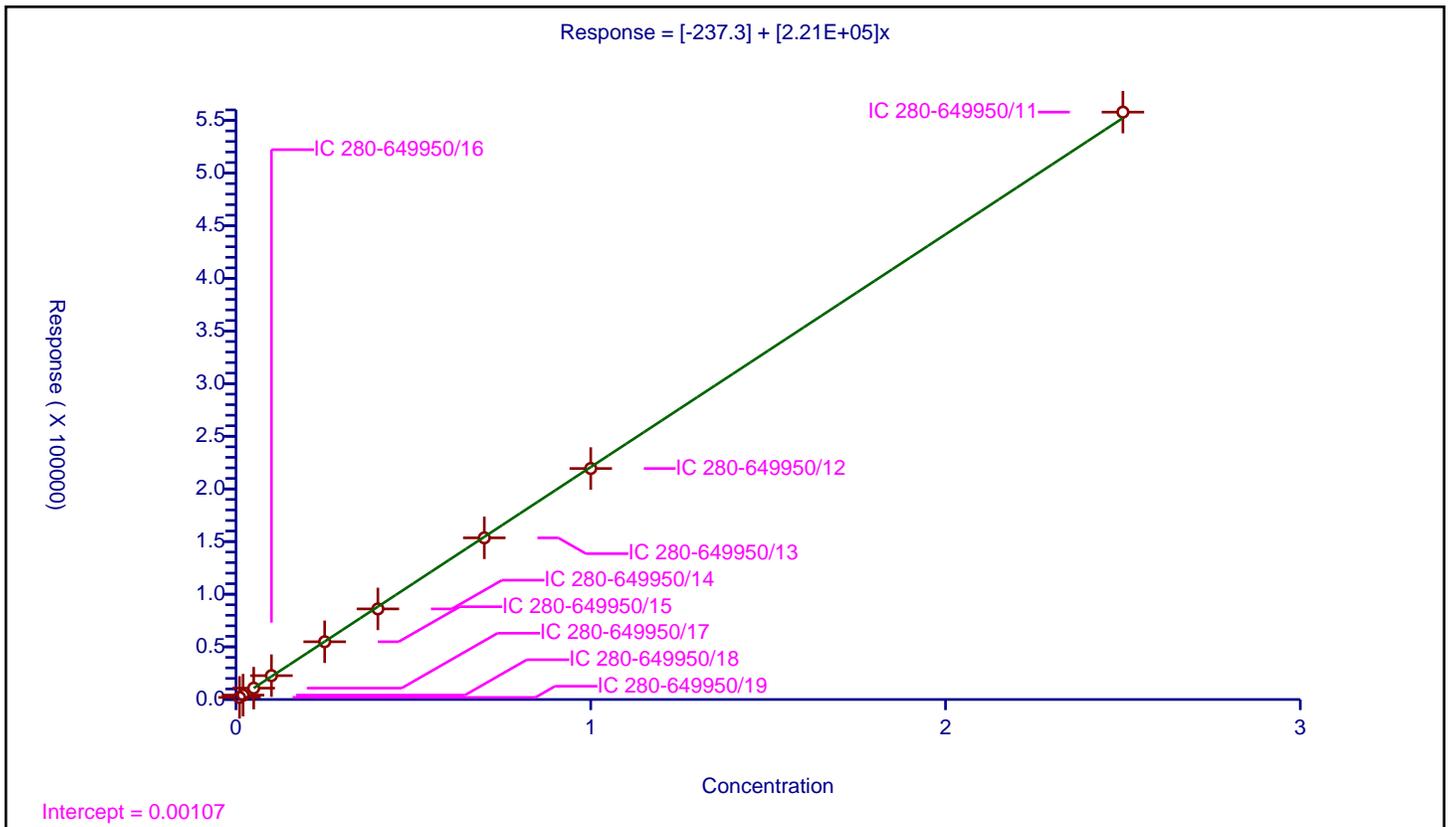
/ 3,5-Dinitroaniline

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-237.3
Slope:	2.21E+05

Error Coefficients	
Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1971.0			197100.0	Y
2	IC 280-649950/18	0.02	4171.0			208550.0	Y
3	IC 280-649950/17	0.05	10781.0			215620.0	Y
4	IC 280-649950/16	0.1	22651.0			226510.0	Y
5	IC 280-649950/15	0.25	54841.0			219364.0	Y
6	IC 280-649950/14	0.4	86047.0			215117.5	Y
7	IC 280-649950/13	0.7	153531.0			219330.0	Y
8	IC 280-649950/12	1.0	219396.0			219396.0	Y
9	IC 280-649950/11	2.5	557874.0			223149.6	Y



Calibration

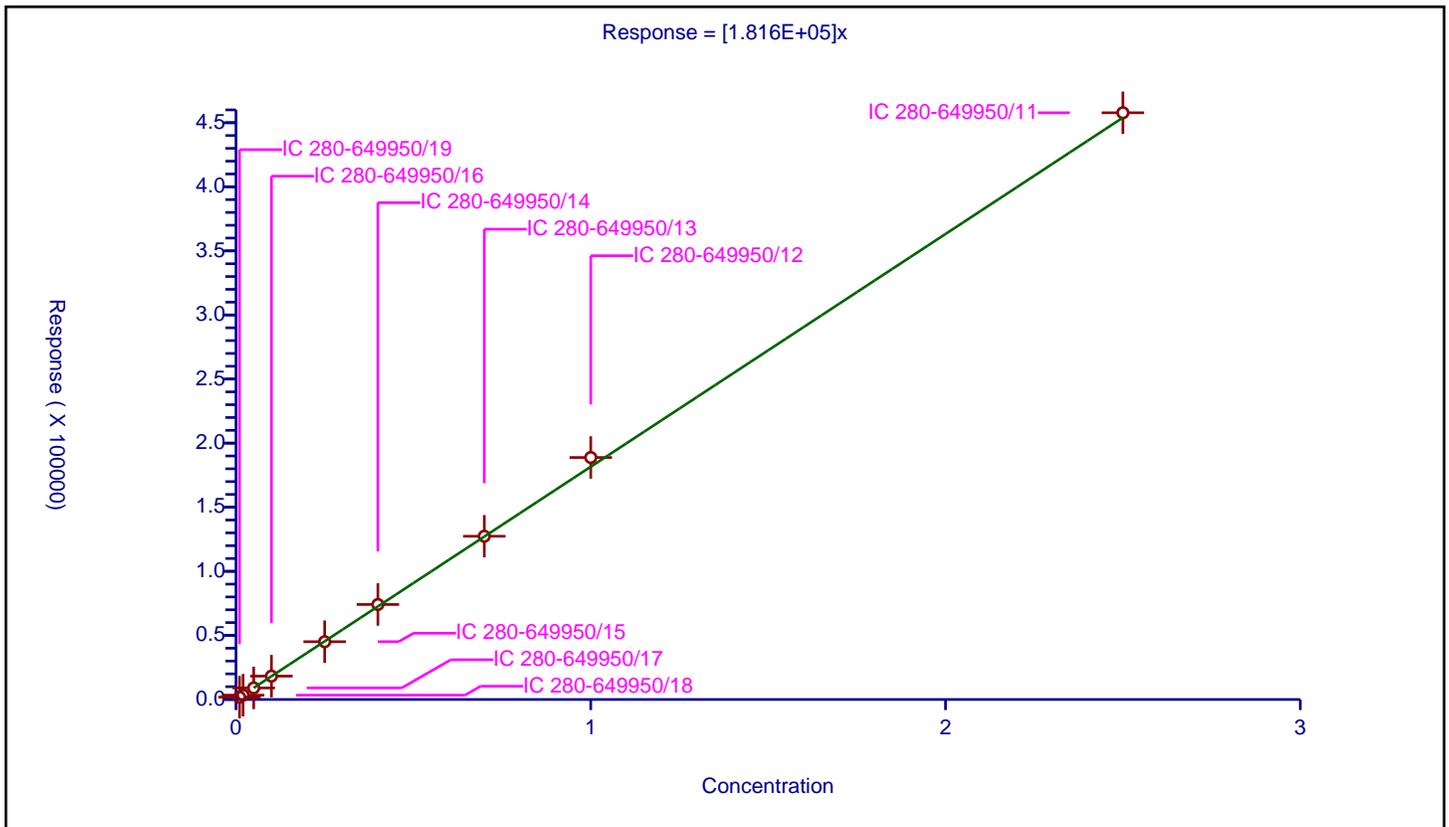
/ Tetryl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.816E+05

Error Coefficients	
Relative Standard Deviation:	3.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1835.0			183500.0	Y
2	IC 280-649950/18	0.02	3374.0			168700.0	Y
3	IC 280-649950/17	0.05	9010.0			180200.0	Y
4	IC 280-649950/16	0.1	18238.0			182380.0	Y
5	IC 280-649950/15	0.25	45082.0			180328.0	Y
6	IC 280-649950/14	0.4	74126.0			185315.0	Y
7	IC 280-649950/13	0.7	127375.0			181964.285714	Y
8	IC 280-649950/12	1.0	188801.0			188801.0	Y
9	IC 280-649950/11	2.5	457763.0			183105.2	Y



Calibration

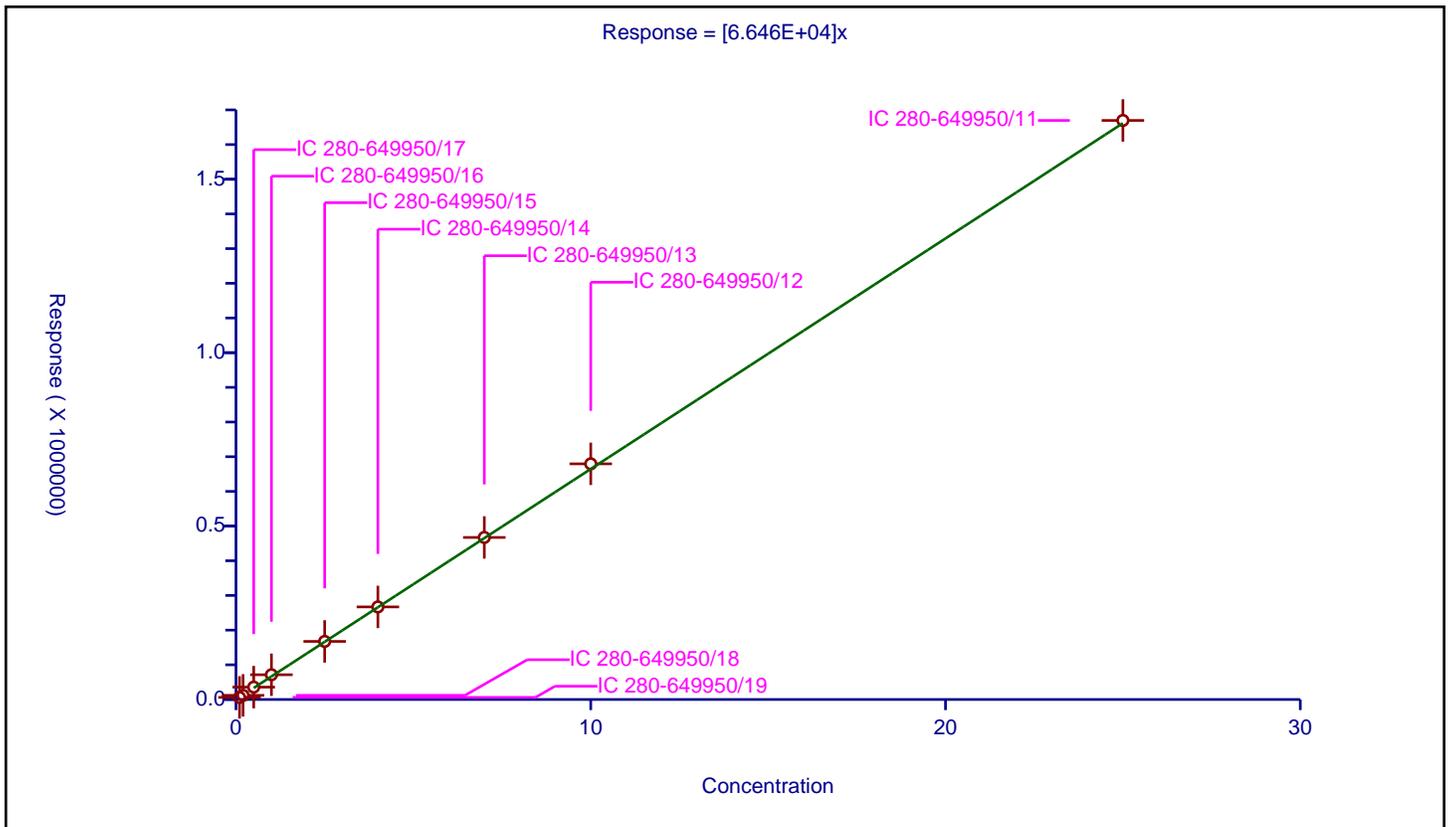
/ Nitroglycerin

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	6.646E+04

Error Coefficients	
Relative Standard Deviation:	6.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	6048.0			60480.0	Y
2	IC 280-649950/18	0.2	11963.0			59815.0	Y
3	IC 280-649950/17	0.5	35657.0			71314.0	Y
4	IC 280-649950/16	1.0	71367.0			71367.0	Y
5	IC 280-649950/15	2.5	167486.0			66994.4	Y
6	IC 280-649950/14	4.0	266924.0			66731.0	Y
7	IC 280-649950/13	7.0	467214.0			66744.857143	Y
8	IC 280-649950/12	10.0	679445.0			67944.5	Y
9	IC 280-649950/11	25.0	1669606.0			66784.24	Y



Calibration

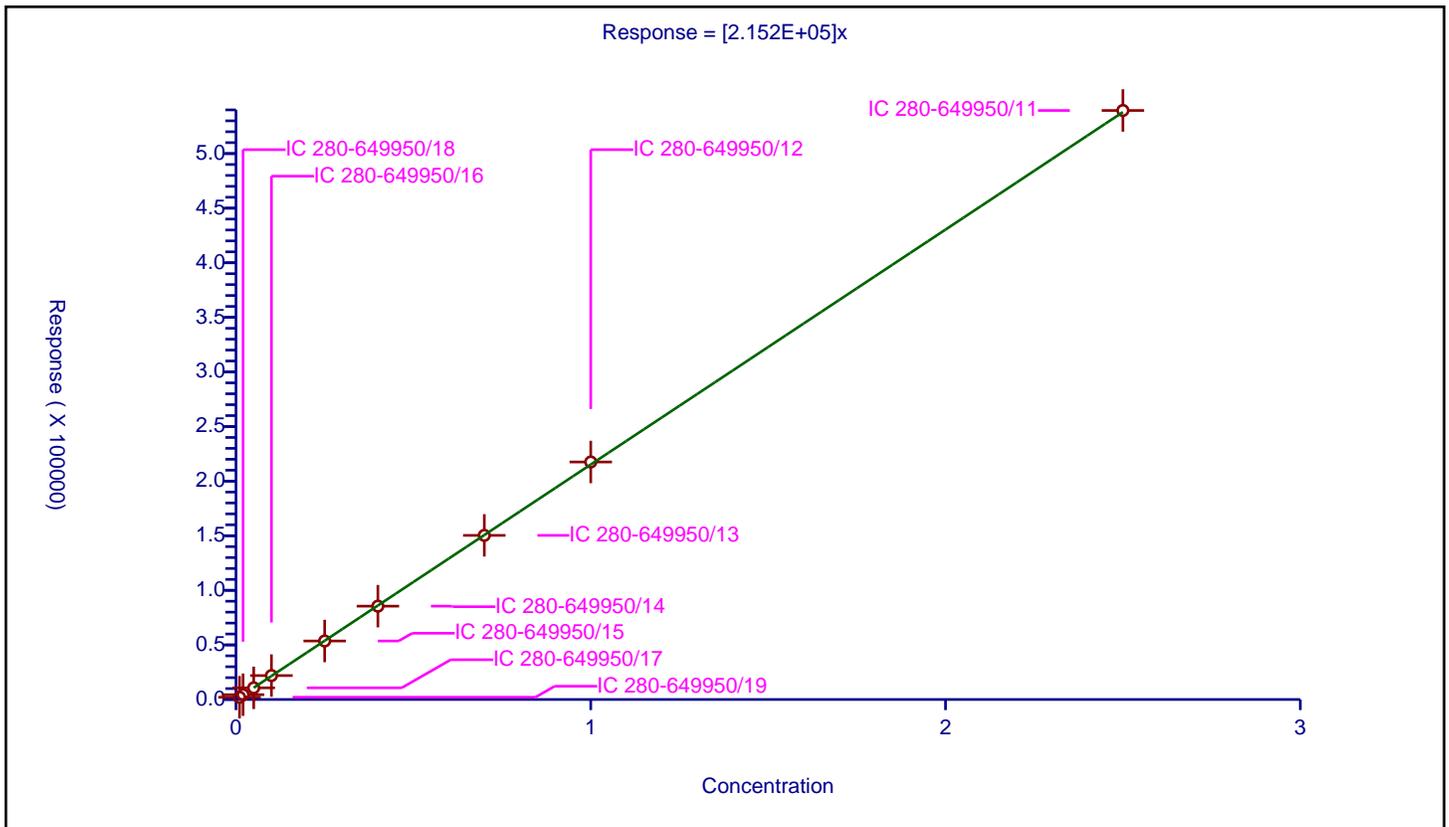
/ 2,4,6-Trinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.152E+05

Error Coefficients	
Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2081.0			208100.0	Y
2	IC 280-649950/18	0.02	4400.0			220000.0	Y
3	IC 280-649950/17	0.05	10669.0			213380.0	Y
4	IC 280-649950/16	0.1	21912.0			219120.0	Y
5	IC 280-649950/15	0.25	53593.0			214372.0	Y
6	IC 280-649950/14	0.4	85495.0			213737.5	Y
7	IC 280-649950/13	0.7	150301.0			214715.714286	Y
8	IC 280-649950/12	1.0	217516.0			217516.0	Y
9	IC 280-649950/11	2.5	539471.0			215788.4	Y



Calibration

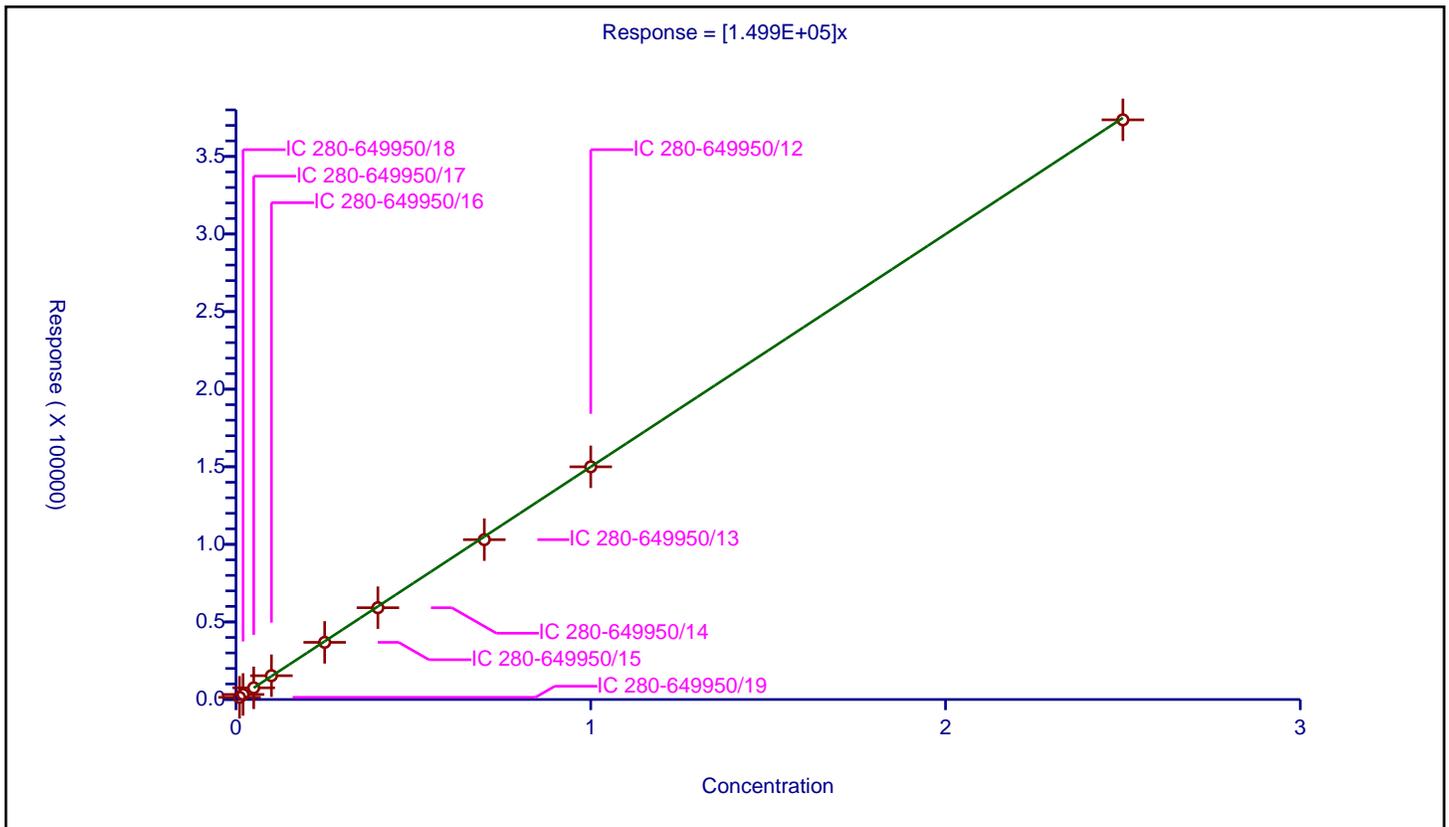
/ 4-Amino-2,6-dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.499E+05

Error Coefficients	
Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1406.0			140600.0	Y
2	IC 280-649950/18	0.02	3261.0			163050.0	Y
3	IC 280-649950/17	0.05	7533.0			150660.0	Y
4	IC 280-649950/16	0.1	15344.0			153440.0	Y
5	IC 280-649950/15	0.25	36831.0			147324.0	Y
6	IC 280-649950/14	0.4	59155.0			147887.5	Y
7	IC 280-649950/13	0.7	103016.0			147165.714286	Y
8	IC 280-649950/12	1.0	149965.0			149965.0	Y
9	IC 280-649950/11	2.5	373596.0			149438.4	Y



Calibration

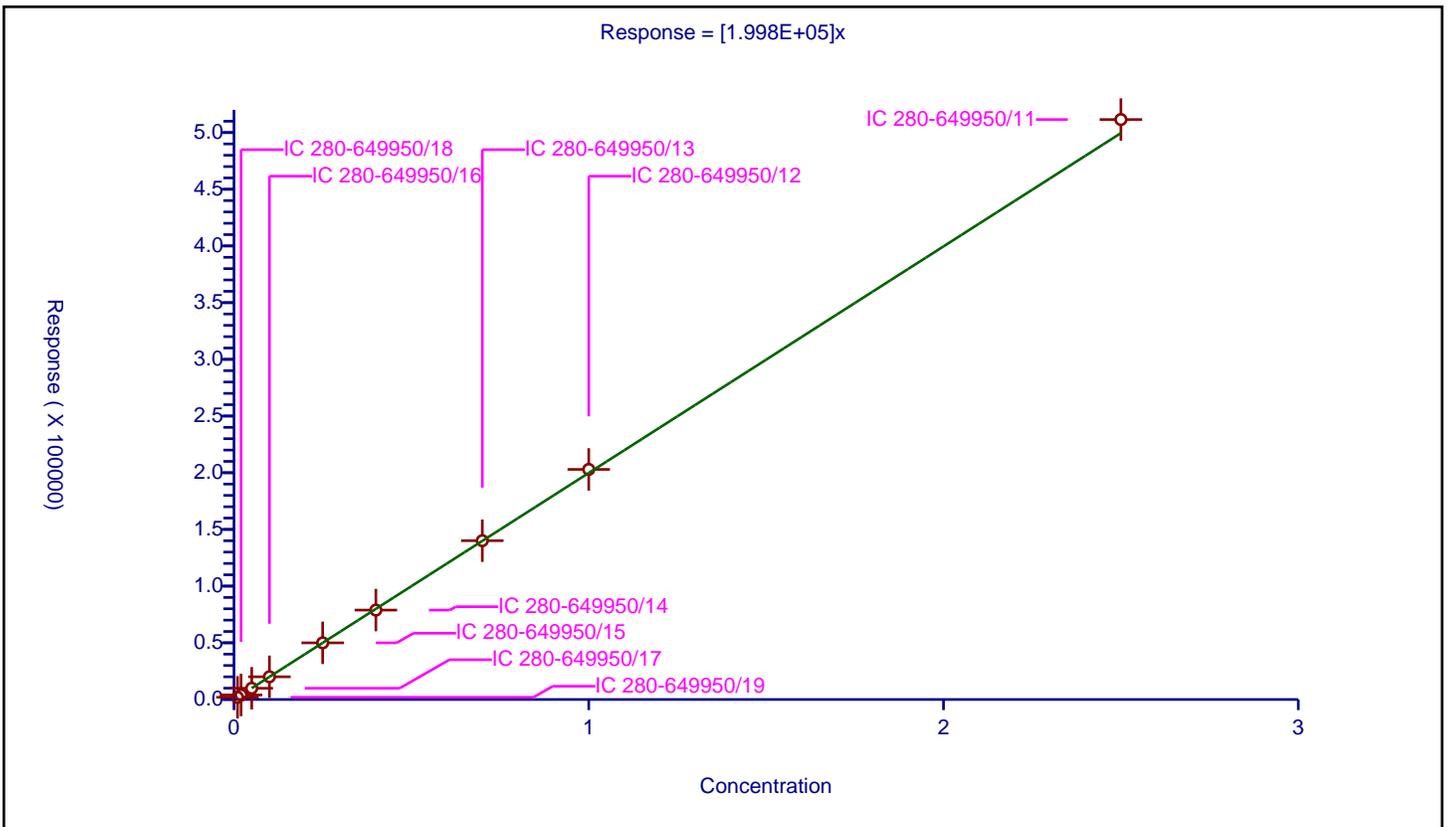
/ 2-Amino-4,6-dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.998E+05

Error Coefficients	
Relative Standard Deviation:	1.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1951.0			195100.0	Y
2	IC 280-649950/18	0.02	3997.0			199850.0	Y
3	IC 280-649950/17	0.05	9923.0			198460.0	Y
4	IC 280-649950/16	0.1	20033.0			200330.0	Y
5	IC 280-649950/15	0.25	49951.0			199804.0	Y
6	IC 280-649950/14	0.4	78856.0			197140.0	Y
7	IC 280-649950/13	0.7	140054.0			200077.142857	Y
8	IC 280-649950/12	1.0	202927.0			202927.0	Y
9	IC 280-649950/11	2.5	511483.0			204593.2	Y



Calibration

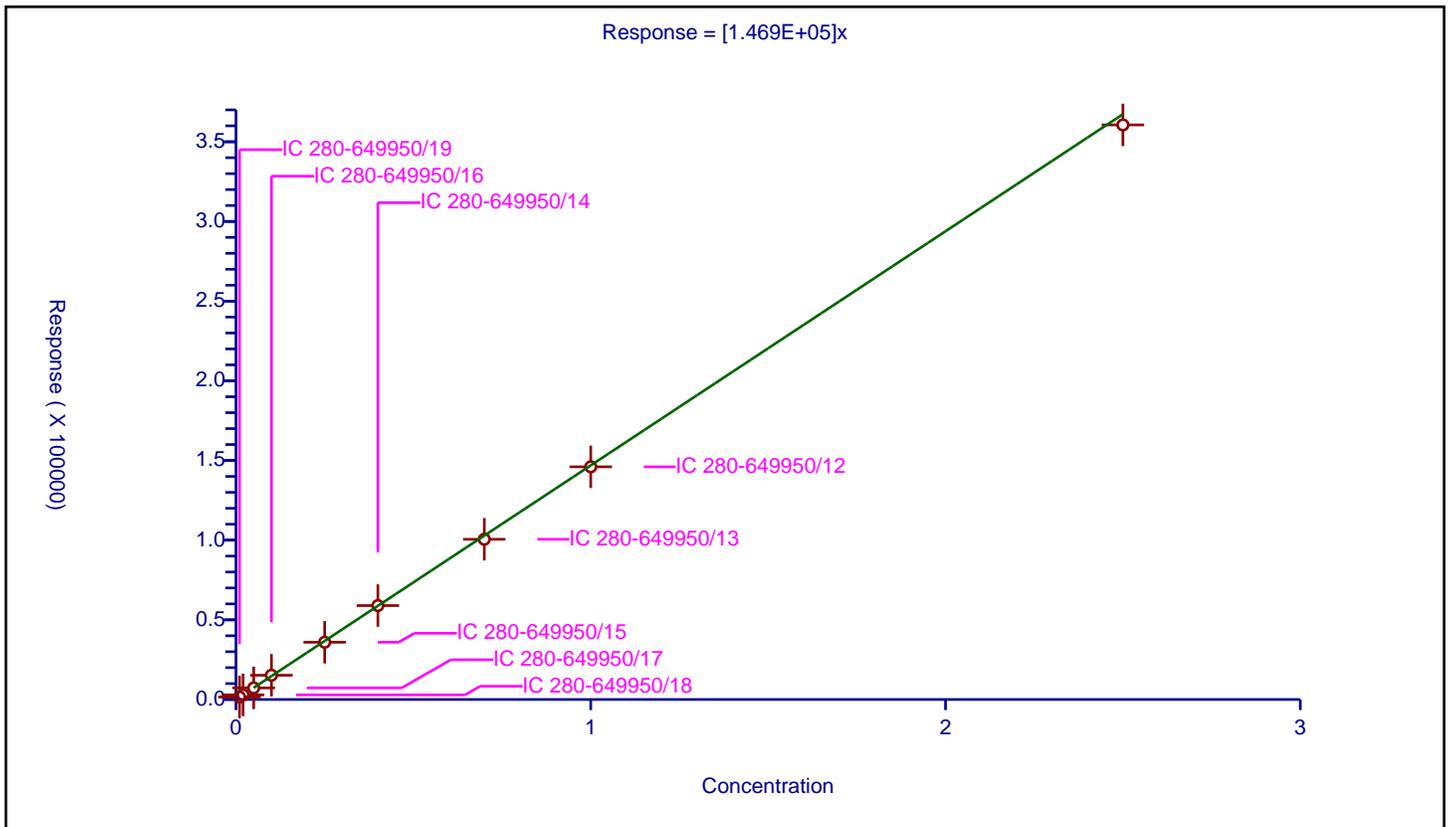
/ 2,6-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.469E+05

Error Coefficients	
Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1557.0			155700.0	Y
2	IC 280-649950/18	0.02	2880.0			144000.0	Y
3	IC 280-649950/17	0.05	7267.0			145340.0	Y
4	IC 280-649950/16	0.1	15218.0			152180.0	Y
5	IC 280-649950/15	0.25	35939.0			143756.0	Y
6	IC 280-649950/14	0.4	58947.0			147367.5	Y
7	IC 280-649950/13	0.7	100540.0			143628.571429	Y
8	IC 280-649950/12	1.0	146021.0			146021.0	Y
9	IC 280-649950/11	2.5	360585.0			144234.0	Y



Calibration

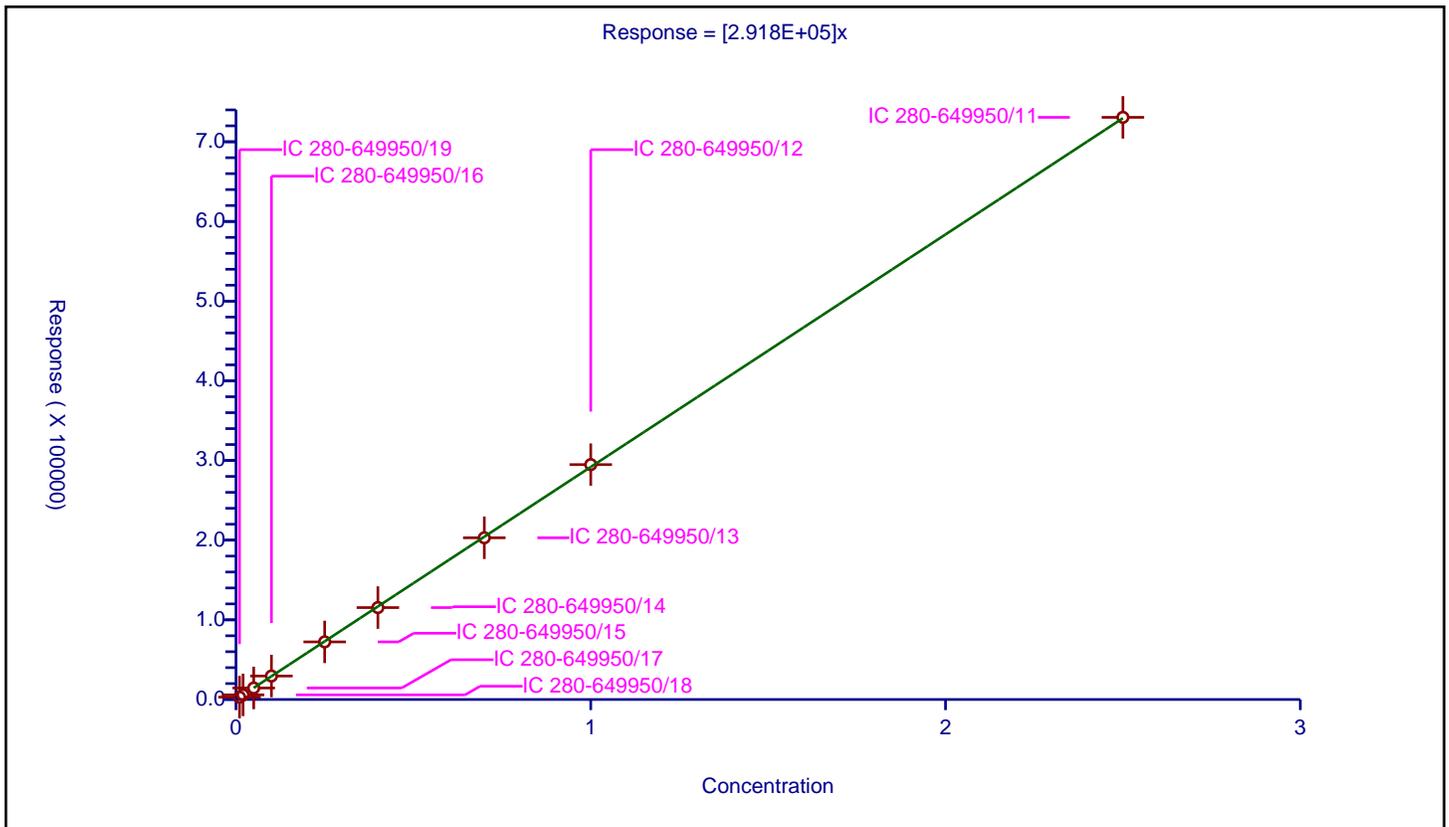
/ 2,4-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.918E+05

Error Coefficients	
Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2993.0			299300.0	Y
2	IC 280-649950/18	0.02	5793.0			289650.0	Y
3	IC 280-649950/17	0.05	14425.0			288500.0	Y
4	IC 280-649950/16	0.1	29452.0			294520.0	Y
5	IC 280-649950/15	0.25	72314.0			289256.0	Y
6	IC 280-649950/14	0.4	115355.0			288387.5	Y
7	IC 280-649950/13	0.7	202952.0			289931.428571	Y
8	IC 280-649950/12	1.0	294790.0			294790.0	Y
9	IC 280-649950/11	2.5	730644.0			292257.6	Y



Calibration

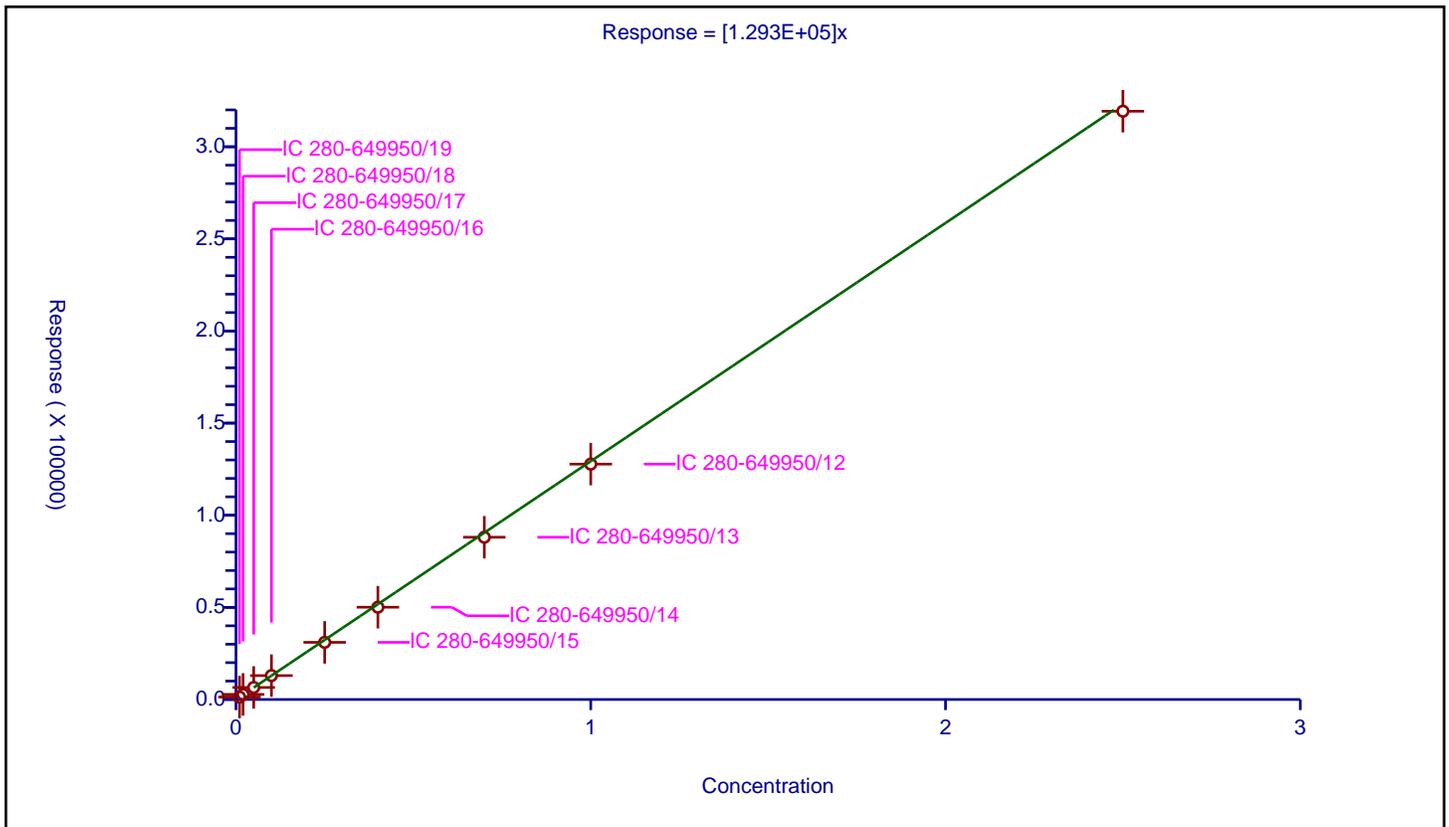
/ o-Nitrotoluene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.293E+05

Error Coefficients	
Relative Standard Deviation:	3.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1340.0			134000.0	Y
2	IC 280-649950/18	0.02	2777.0			138850.0	Y
3	IC 280-649950/17	0.05	6526.0			130520.0	Y
4	IC 280-649950/16	0.1	12977.0			129770.0	Y
5	IC 280-649950/15	0.25	31023.0			124092.0	Y
6	IC 280-649950/14	0.4	50092.0			125230.0	Y
7	IC 280-649950/13	0.7	88069.0			125812.857143	Y
8	IC 280-649950/12	1.0	127758.0			127758.0	Y
9	IC 280-649950/11	2.5	319286.0			127714.4	Y



Calibration

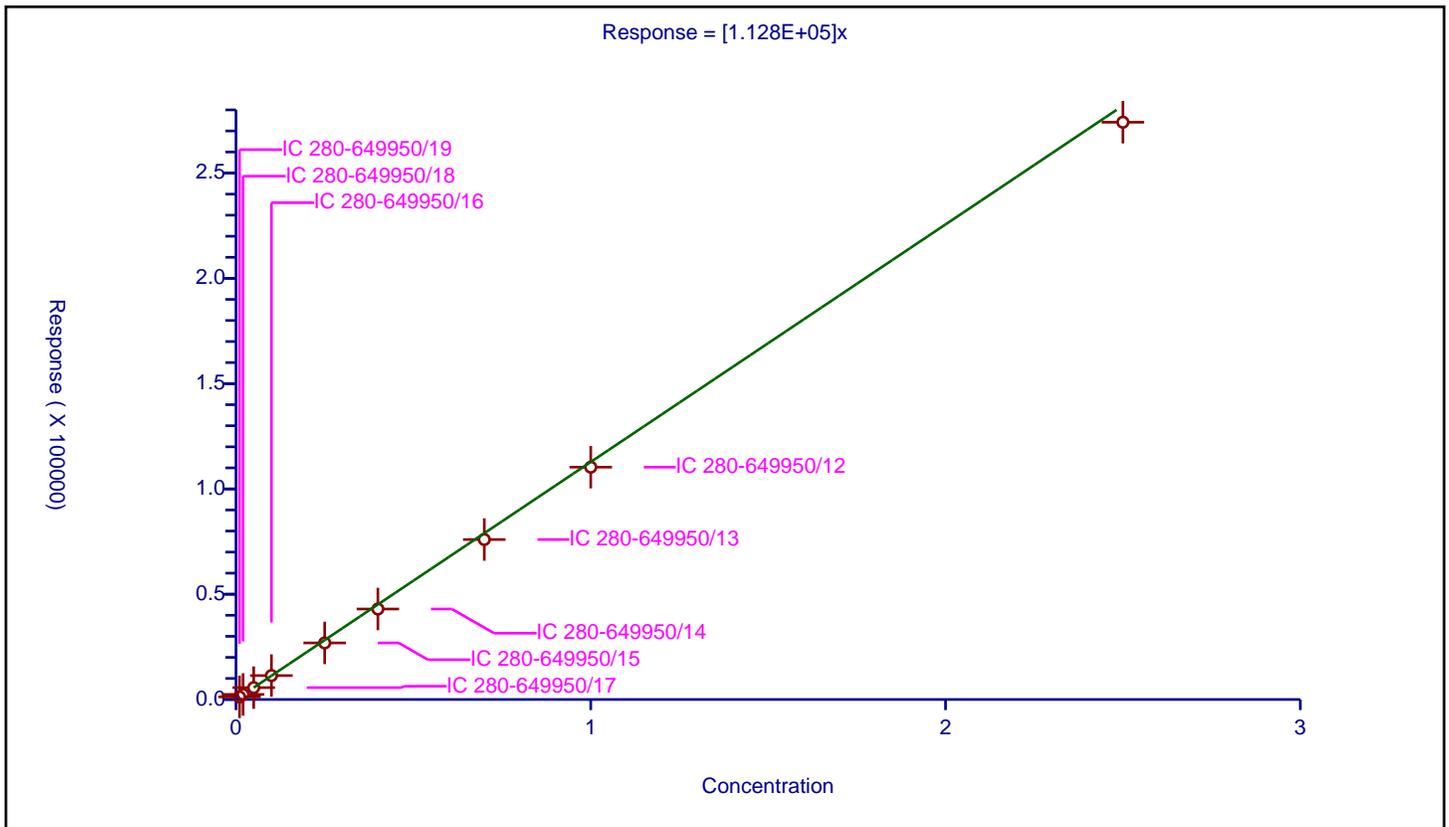
/ p-Nitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.128E+05

Error Coefficients	
Relative Standard Deviation:	5.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1249.0			124900.0	Y
2	IC 280-649950/18	0.02	2413.0			120650.0	Y
3	IC 280-649950/17	0.05	5631.0			112620.0	Y
4	IC 280-649950/16	0.1	11360.0			113600.0	Y
5	IC 280-649950/15	0.25	26871.0			107484.0	Y
6	IC 280-649950/14	0.4	42973.0			107432.5	Y
7	IC 280-649950/13	0.7	75957.0			108510.0	Y
8	IC 280-649950/12	1.0	110337.0			110337.0	Y
9	IC 280-649950/11	2.5	274145.0			109658.0	Y



Calibration

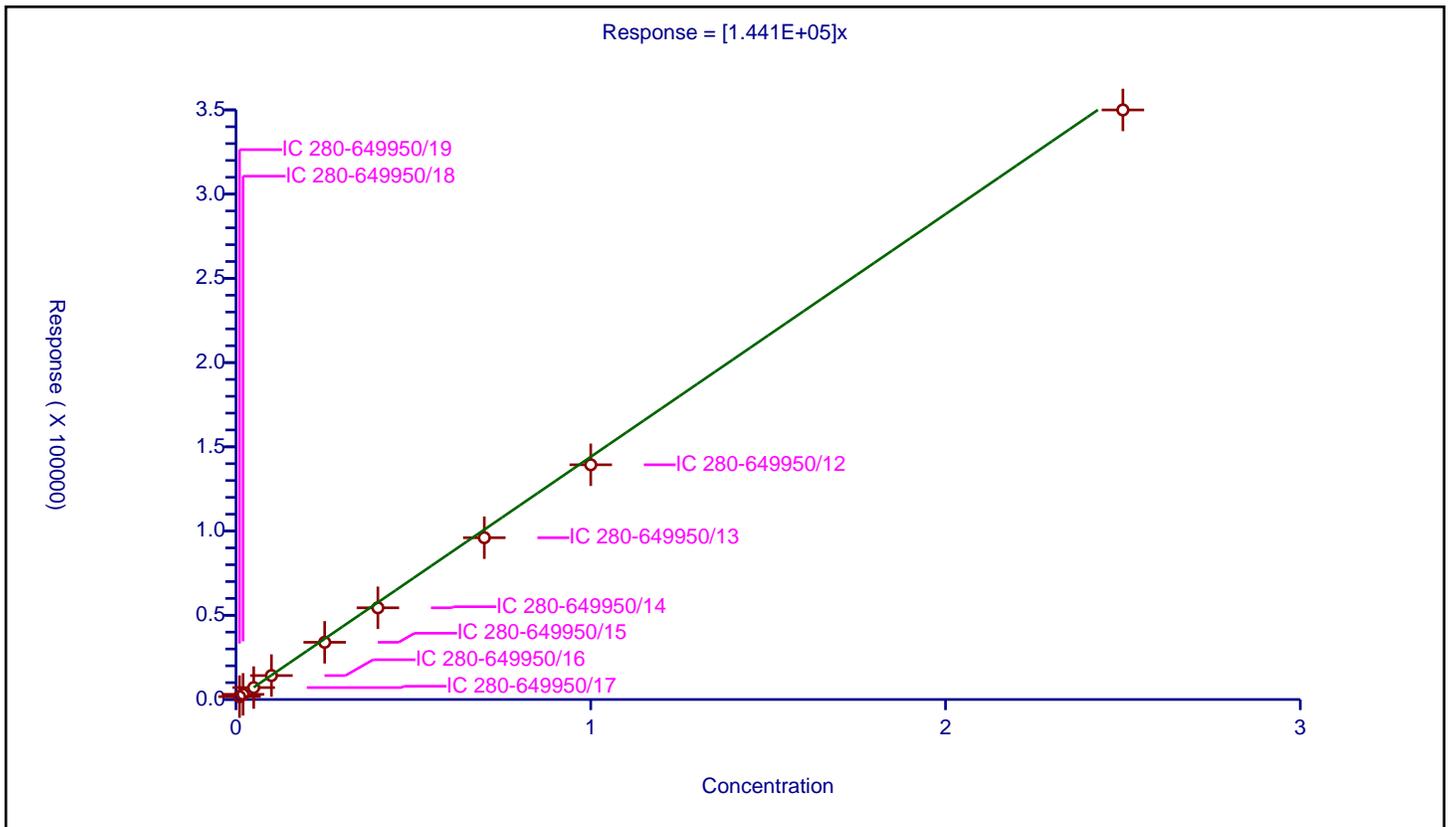
/ m-Nitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.441E+05

Error Coefficients	
Relative Standard Deviation:	8.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1713.0			171300.0	Y
2	IC 280-649950/18	0.02	3066.0			153300.0	Y
3	IC 280-649950/17	0.05	7074.0			141480.0	Y
4	IC 280-649950/16	0.1	14207.0			142070.0	Y
5	IC 280-649950/15	0.25	33952.0			135808.0	Y
6	IC 280-649950/14	0.4	54437.0			136092.5	Y
7	IC 280-649950/13	0.7	96036.0			137194.285714	Y
8	IC 280-649950/12	1.0	139336.0			139336.0	Y
9	IC 280-649950/11	2.5	349971.0			139988.4	Y



Calibration

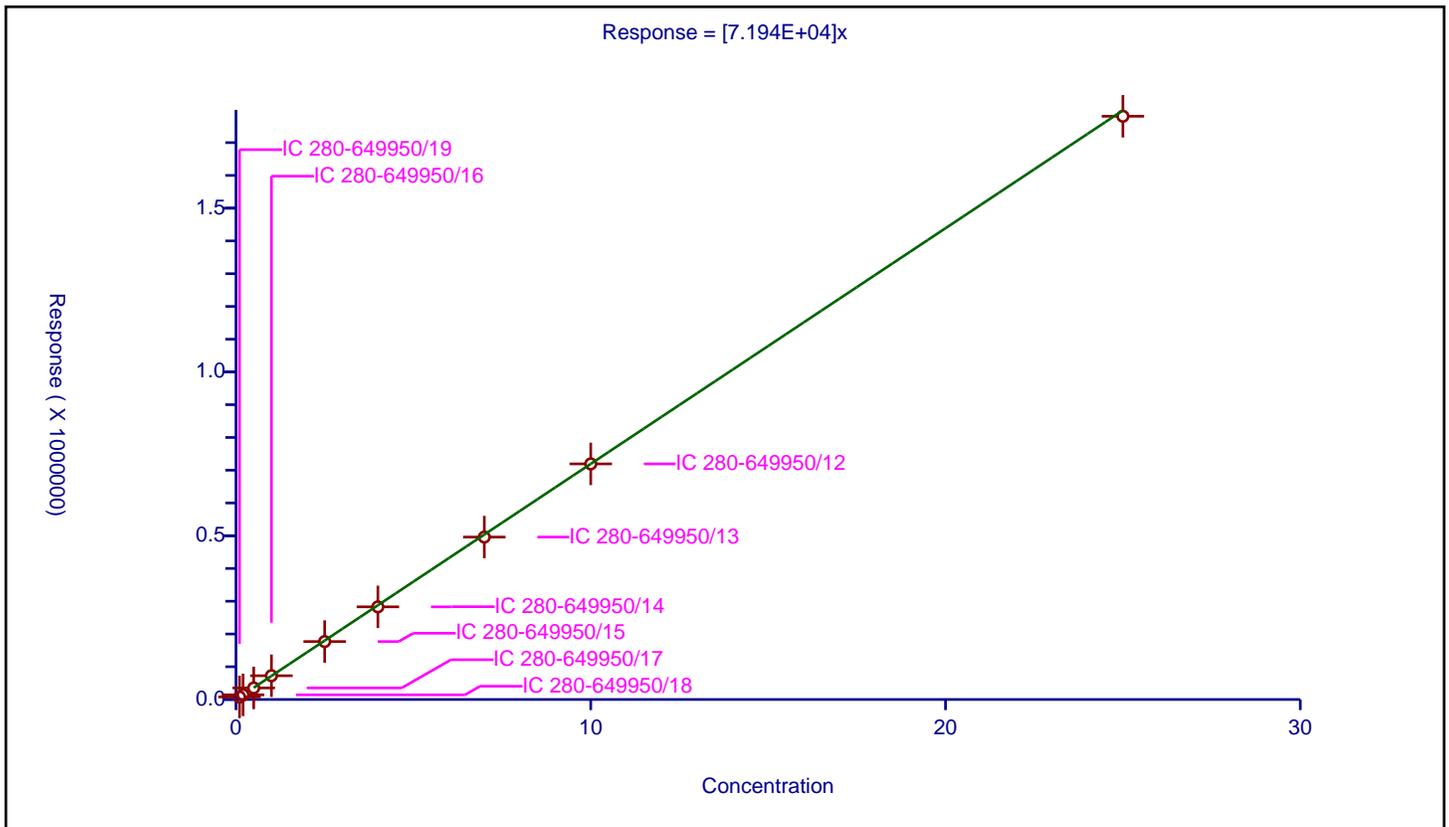
/ PETN

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ESTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	7.194E+04

Error Coefficients	
Relative Standard Deviation:	3.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	7807.0			78070.0	Y
2	IC 280-649950/18	0.2	14174.0			70870.0	Y
3	IC 280-649950/17	0.5	35216.0			70432.0	Y
4	IC 280-649950/16	1.0	72600.0			72600.0	Y
5	IC 280-649950/15	2.5	176891.0			70756.4	Y
6	IC 280-649950/14	4.0	282889.0			70722.25	Y
7	IC 280-649950/13	7.0	495856.0			70836.571429	Y
8	IC 280-649950/12	10.0	719241.0			71924.1	Y
9	IC 280-649950/11	25.0	1780535.0			71221.4	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 04240019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	166804		479	500	-4.2	20.0
Picric acid	Ave	151397	162096		535	500	7.1	20.0
RDX	Lin2		212688		514	500	2.9	20.0
Nitrobenzene	Ave	382120	410196		537	500	7.3	20.0
3,5-Dinitroaniline	Lin2		467084		540	500	8.0	20.0
1,3-Dinitrobenzene	Ave	589418	622818		528	500	5.7	20.0
Nitroglycerin	Ave	119505	129045		5400	5000	8.0	20.0
2-Nitrotoluene	Ave	244594	255606		523	500	4.5	20.0
4-Nitrotoluene	Lin2		237762		542	500	8.4	20.0
4-Amino-2,6-dinitrotoluene	Lin2		298664		551	500	10.3	20.0
3-Nitrotoluene	Lin2		294022		530	500	6.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	411548		507	500	1.5	20.0
1,3,5-Trinitrobenzene	Ave	423454	463460		547	500	9.4	20.0
2,6-Dinitrotoluene	Ave	277970	282262		508	500	1.5	20.0
2,4-Dinitrotoluene	Ave	554564	571064		515	500	3.0	20.0
Tetryl	Lin2		340546		544	500	8.9	20.0
2,4,6-Trinitrotoluene	Ave	399763	421604		527	500	5.5	20.0
PETN	Lin2		139356		5650	5000	13.1	20.0
1,2-Dinitrobenzene	Ave	258689	258086		499	500	-0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 04240019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.69	6.56	6.86
Picric acid	8.58	8.46	8.76
RDX	8.92	8.79	9.09
Nitrobenzene	11.42	11.28	11.58
3,5-Dinitroaniline	14.19	14.04	14.34
1,3-Dinitrobenzene	14.48	14.33	14.63
Nitroglycerin	14.93	14.77	15.07
2-Nitrotoluene	15.51	15.36	15.66
4-Nitrotoluene	15.74	15.59	15.89
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.57	16.43	16.73
2-Amino-4,6-dinitrotoluene	17.05	16.91	17.21
1,3,5-Trinitrobenzene	17.26	17.12	17.42
2,6-Dinitrotoluene	18.36	18.22	18.52
2,4-Dinitrotoluene	18.81	18.67	18.97
Tetryl	22.03	21.88	22.18
2,4,6-Trinitrotoluene	22.88	22.73	23.03
PETN	24.03	23.88	24.18
1,2-Dinitrobenzene	12.35	12.20	12.50

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240019.D
 Lims ID: ICV INT
 Client ID:
 Sample Type: ICV
 Inject. Date: 25-Apr-2024 02:51:47 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_G2_LUNA
 Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 25-Apr-2024 14:35:18 Calib Date: 25-Apr-2024 02:15:46
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240018.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:30:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.690	6.705	-0.015	83402	0.5000	0.4791	
5 2,4,6-Trinitrophenol	1	8.583	8.612	-0.029	81048	0.5000	0.5353	
8 RDX	1	8.923	8.938	-0.015	106344	0.5000	0.5145	
9 Nitrobenzene	1	11.423	11.425	-0.002	205098	0.5000	0.5367	
\$ 10 1,2-Dinitrobenzene	1	12.350	12.345	0.005	129043	0.5000	0.4988	
11 3,5-Dinitroaniline	1	14.190	14.185	0.005	233542	0.5000	0.5401	
12 1,3-Dinitrobenzene	1	14.477	14.478	-0.001	311409	0.5000	0.5283	
13 Nitroglycerin	2	14.930	14.918	0.012	645227	5.00	5.40	M
14 o-Nitrotoluene	1	15.510	15.505	0.005	127803	0.5000	0.5225	
15 p-Nitrotoluene	1	15.737	15.738	-0.001	118881	0.5000	0.5418	
16 4-Amino-2,6-dinitrotoluene	1	16.243	16.245	-0.002	149332	0.5000	0.5513	
17 m-Nitrotoluene	1	16.570	16.578	-0.008	147011	0.5000	0.5299	
18 2-Amino-4,6-dinitrotoluene	1	17.050	17.058	-0.008	205774	0.5000	0.5074	
19 1,3,5-Trinitrobenzene	1	17.263	17.272	-0.009	231730	0.5000	0.5472	
20 2,6-Dinitrotoluene	1	18.357	18.365	-0.008	141131	0.5000	0.5077	
21 2,4-Dinitrotoluene	1	18.810	18.818	-0.008	285532	0.5000	0.5149	
22 Tetryl	1	22.030	22.025	0.005	170273	0.5000	0.5444	
23 2,4,6-Trinitrotoluene	1	22.883	22.878	0.005	210802	0.5000	0.5273	
24 PETN	2	24.030	24.032	-0.002	696781	5.00	5.65	
25 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8330Surrogate_00154

Amount Added: 50.00

Units: uL

8330 LCS_00134

Amount Added: 50.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240019.d

Injection Date: 25-Apr-2024 02:51:47

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ/JG

Lims ID: ICV INT

Worklist Smp#: 19

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

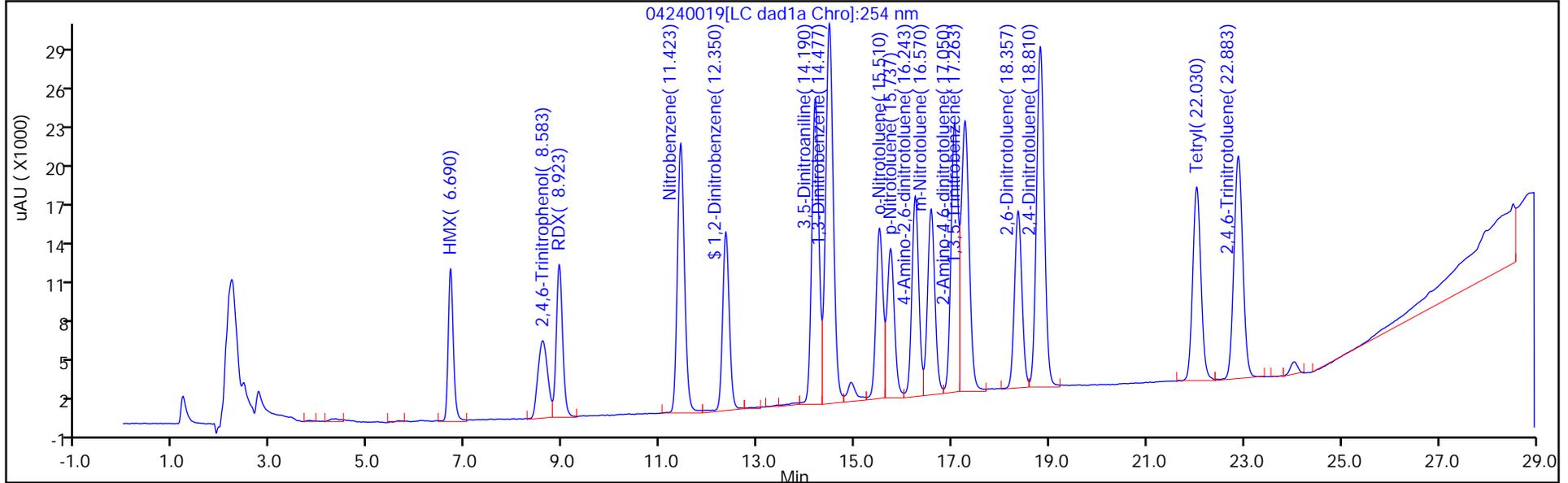
ALS Bottle#: 19

Method: G2_8330_Luna

Limit Group: GCSV - 8330

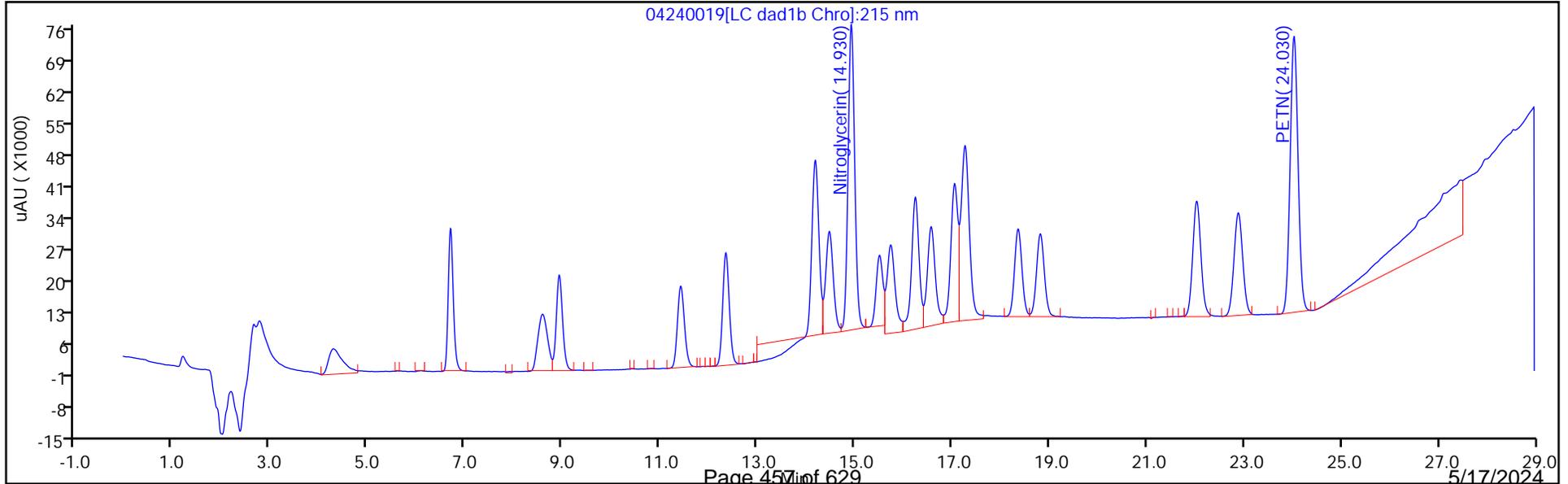
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

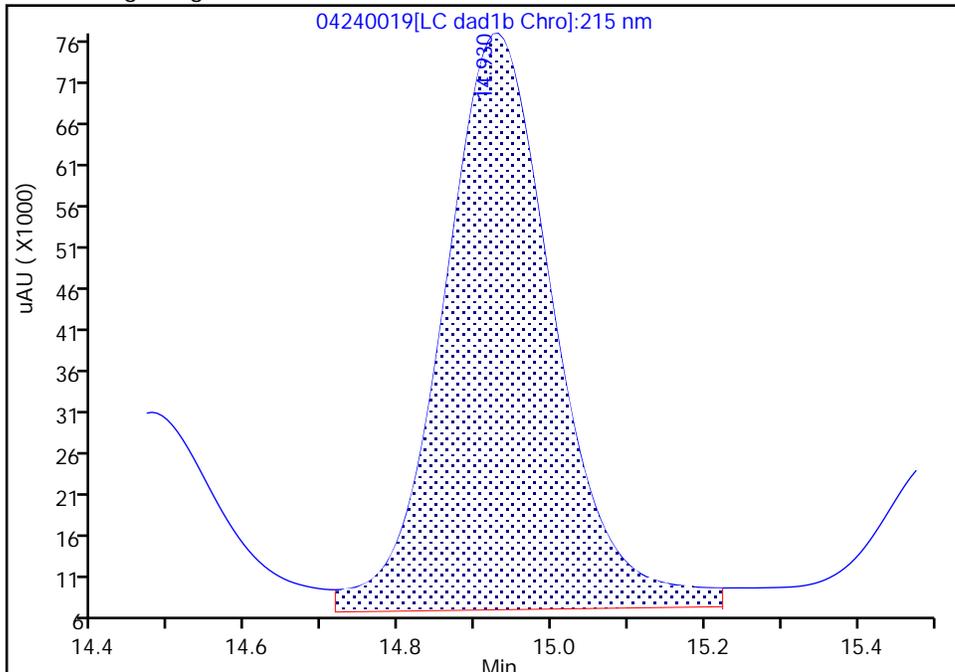
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240019.d
Injection Date: 25-Apr-2024 02:51:47 Instrument ID: CHHPLC_G2_LUNA
Lims ID: ICV INT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

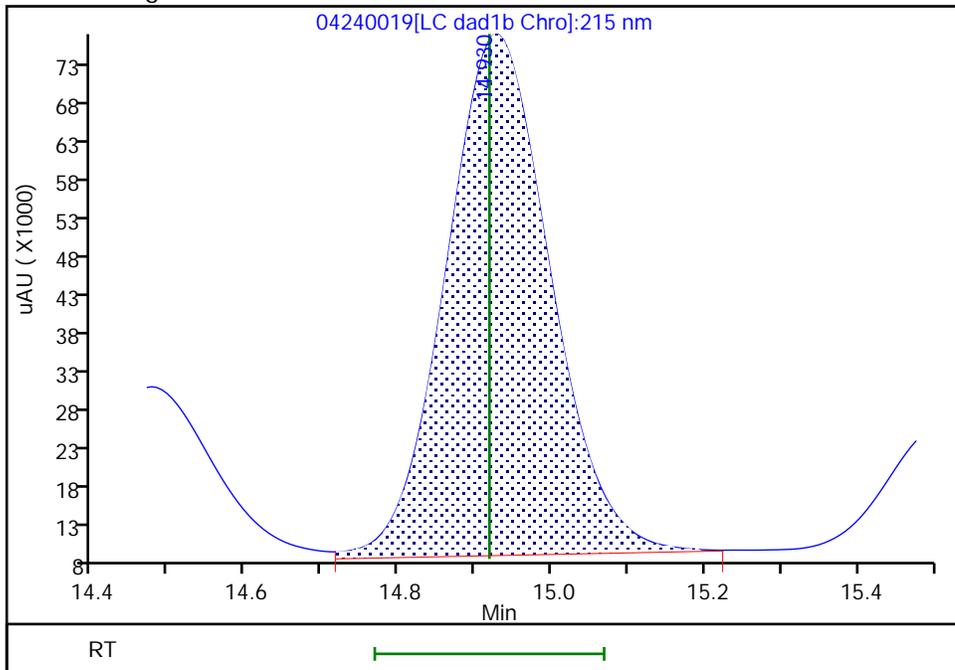
RT: 14.93
Area: 708140
Amount: 5.925621
Amount Units: ug/ml

Processing Integration Results



RT: 14.93
Area: 645227
Amount: 5.399174
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:30:07 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652810/14 Calibration Date: 05/09/2024 21:28
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 05090014.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	180328		259	250	3.6	20.0
Picric acid	Ave	151397	158272		261	250	4.5	20.0
RDX	Lin2		209840		252	250	1.0	20.0
Nitrobenzene	Ave	382120	385916		252	250	1.0	20.0
3,5-Dinitroaniline	Lin2		445724		257	250	2.6	20.0
1,3-Dinitrobenzene	Ave	589418	583748		248	250	-1.0	20.0
Nitroglycerin	Ave	119505	123708		2590	2500	3.5	20.0
2-Nitrotoluene	Ave	244594	244140		250	250	-0.2	20.0
4-Nitrotoluene	Lin2		223600		253	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Lin2		278348		255	250	2.2	20.0
3-Nitrotoluene	Lin2		283064		253	250	1.3	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	397720		245	250	-1.9	20.0
1,3,5-Trinitrobenzene	Ave	423454	417284		246	250	-1.5	20.0
2,6-Dinitrotoluene	Ave	277970	277644		250	250	-0.1	20.0
2,4-Dinitrotoluene	Ave	554564	550912		248	250	-0.7	20.0
Tetryl	Lin2		307972		245	250	-1.9	20.0
2,4,6-Trinitrotoluene	Ave	399763	405124		253	250	1.3	20.0
PETN	Lin2		128659		2620	2500	4.7	20.0
1,2-Dinitrobenzene	Ave	258689	262220		253	250	1.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652810/14 Calibration Date: 05/09/2024 21:28
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 05090014.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.63	6.49	6.79
Picric acid	8.48	8.36	8.66
RDX	8.84	8.69	8.99
Nitrobenzene	11.35	11.18	11.48
3,5-Dinitroaniline	14.03	13.88	14.18
1,3-Dinitrobenzene	14.35	14.20	14.50
Nitroglycerin	14.80	14.65	14.95
2-Nitrotoluene	15.38	15.23	15.53
4-Nitrotoluene	15.61	15.46	15.76
4-Amino-2,6-dinitrotoluene	16.07	15.93	16.23
3-Nitrotoluene	16.44	16.29	16.59
2-Amino-4,6-dinitrotoluene	16.87	16.73	17.03
1,3,5-Trinitrobenzene	17.13	16.98	17.28
2,6-Dinitrotoluene	18.18	18.03	18.33
2,4-Dinitrotoluene	18.63	18.49	18.79
Tetryl	21.74	21.60	21.90
2,4,6-Trinitrotoluene	22.62	22.47	22.77
PETN	23.74	23.60	23.90
1,2-Dinitrobenzene	12.23	12.07	12.37

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\05090014.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-May-2024 21:28:56 ALS Bottle#: 7 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:48 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 12:59:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.628	6.637	-0.009	45082	0.2500	0.2590	
5 2,4,6-Trinitrophenol	1	8.481	8.511	-0.030	39568	0.2500	0.2614	
8 RDX	1	8.841	8.844	-0.003	52460	0.2500	0.2525	
9 Nitrobenzene	1	11.348	11.330	0.018	96479	0.2500	0.2525	M
\$ 10 1,2-Dinitrobenzene	1	12.234	12.224	0.010	65555	0.2500	0.2534	M
11 3,5-Dinitroaniline	1	14.034	14.030	0.004	111431	0.2500	0.2566	M
12 1,3-Dinitrobenzene	1	14.348	14.350	-0.002	145937	0.2500	0.2476	M
13 Nitroglycerin	2	14.801	14.804	-0.003	309271	2.50	2.59	M
14 o-Nitrotoluene	1	15.381	15.377	0.004	61035	0.2500	0.2495	M
15 p-Nitrotoluene	1	15.608	15.610	-0.002	55900	0.2500	0.2525	M
16 4-Amino-2,6-dinitrotoluene	1	16.074	16.077	-0.003	69587	0.2500	0.2554	M
17 m-Nitrotoluene	1	16.441	16.437	0.004	70766	0.2500	0.2533	M
18 2-Amino-4,6-dinitrotoluene	1	16.874	16.877	-0.003	99430	0.2500	0.2452	M
19 1,3,5-Trinitrobenzene	1	17.128	17.130	-0.002	104321	0.2500	0.2464	M
20 2,6-Dinitrotoluene	1	18.181	18.184	-0.003	69411	0.2500	0.2497	M
21 2,4-Dinitrotoluene	1	18.634	18.637	-0.003	137728	0.2500	0.2484	M
22 Tetryl	1	21.741	21.751	-0.010	76993	0.2500	0.2454	M
23 2,4,6-Trinitrotoluene	1	22.615	22.624	-0.009	101281	0.2500	0.2534	M
24 PETN	2	23.741	23.751	-0.010	321647	2.50	2.62	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

Report Date: 10-May-2024 16:36:49

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d

Injection Date: 09-May-2024 21:28:56

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

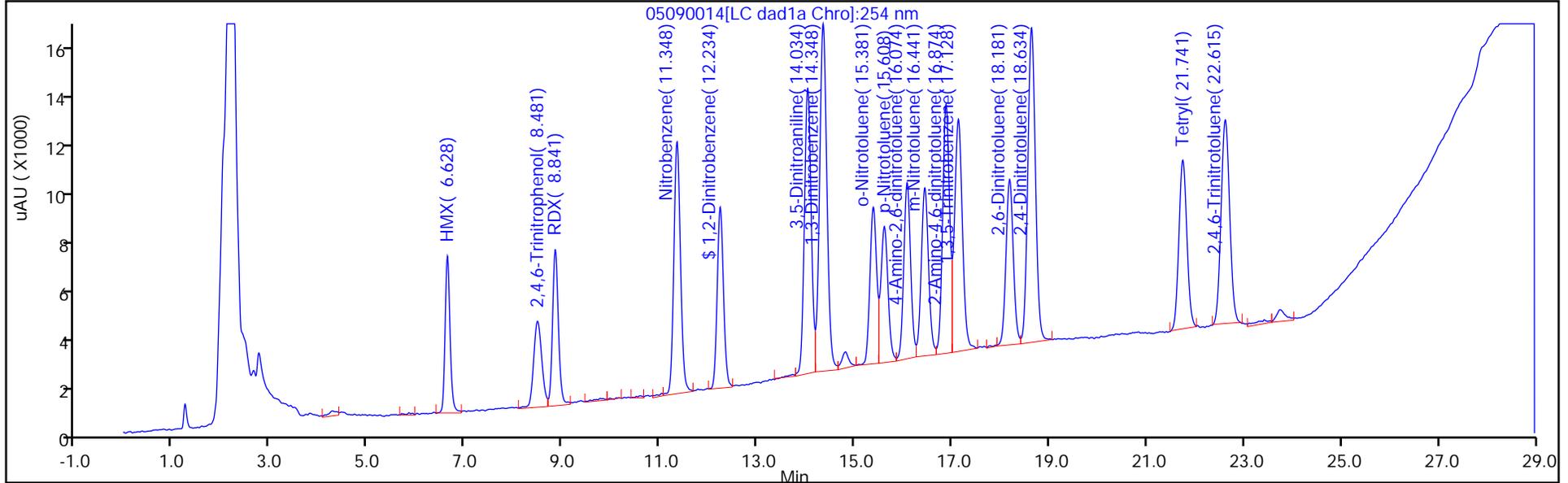
ALS Bottle#: 7

Method: G2_8330_Luna

Limit Group: GCSV - 8330

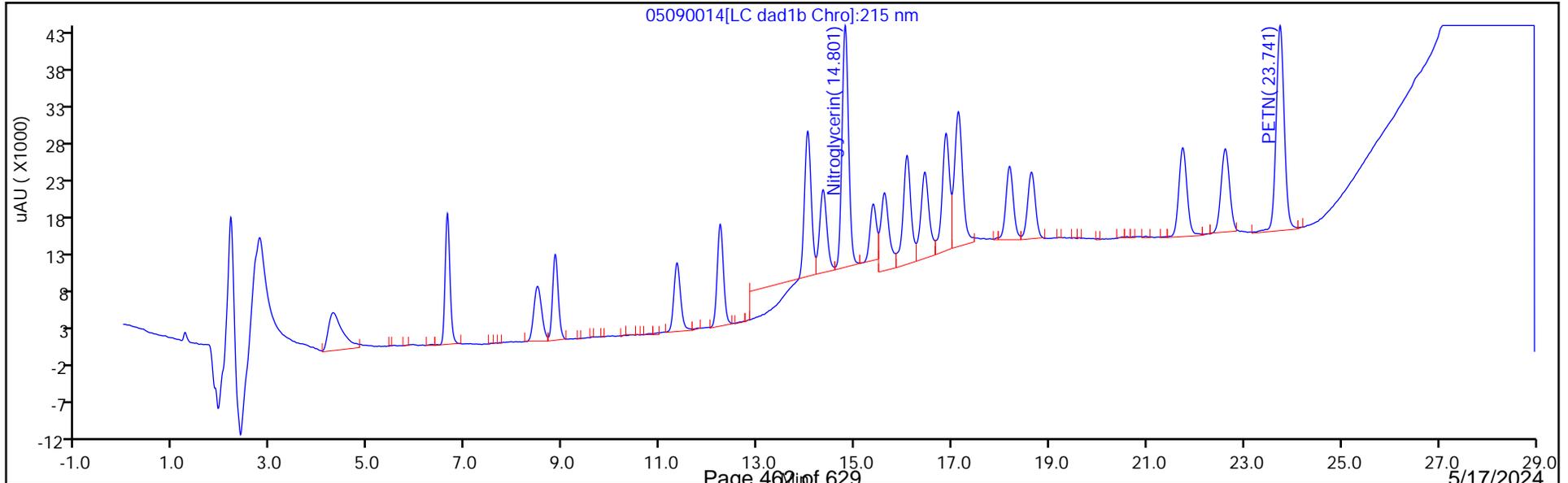
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

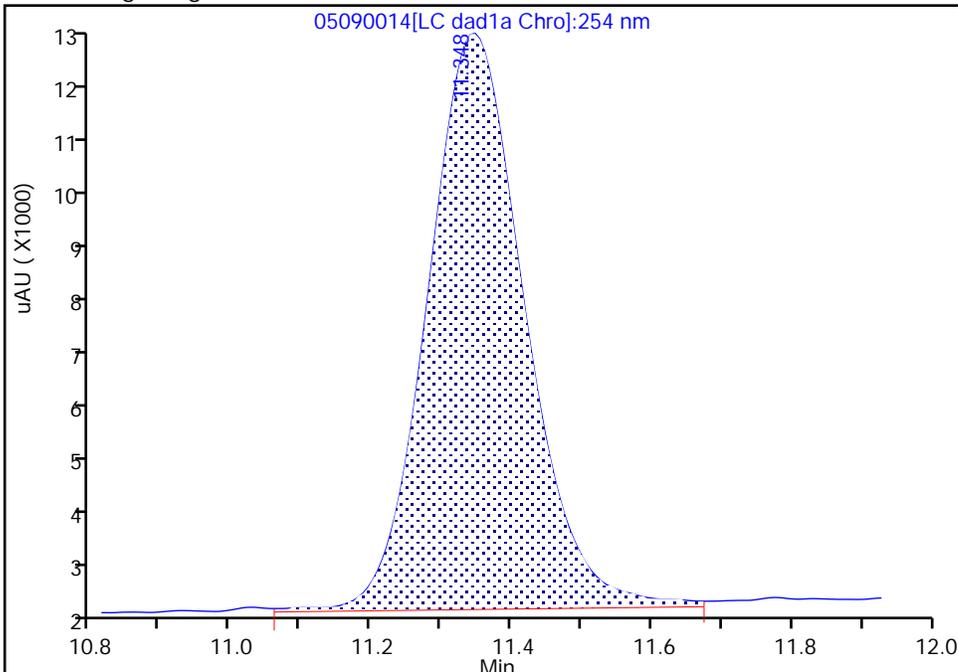
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

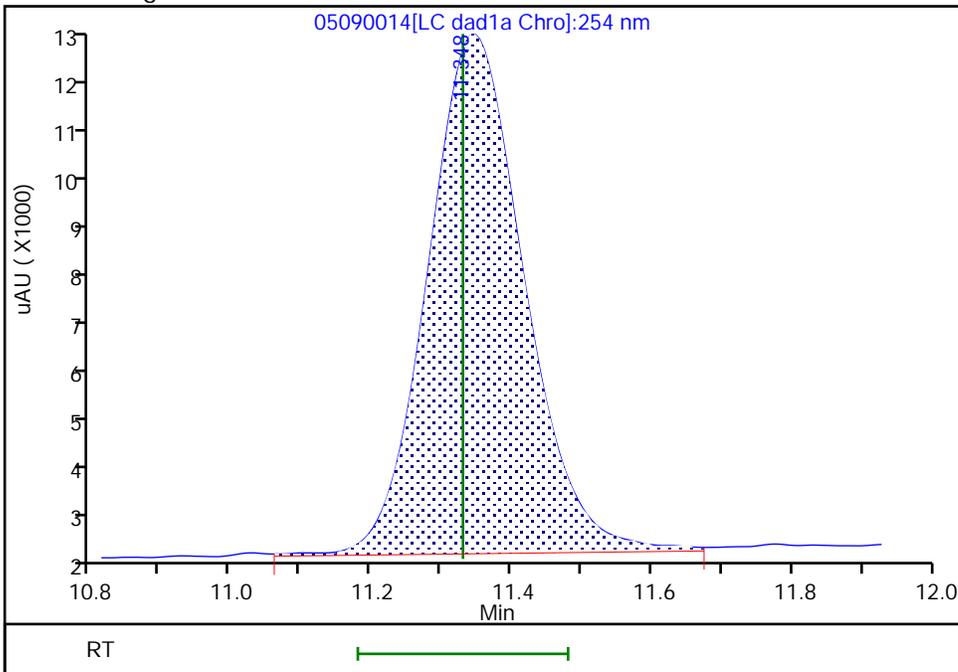
RT: 11.35
Area: 96994
Amount: 0.253831
Amount Units: ug/ml

Processing Integration Results



RT: 11.35
Area: 96479
Amount: 0.252483
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

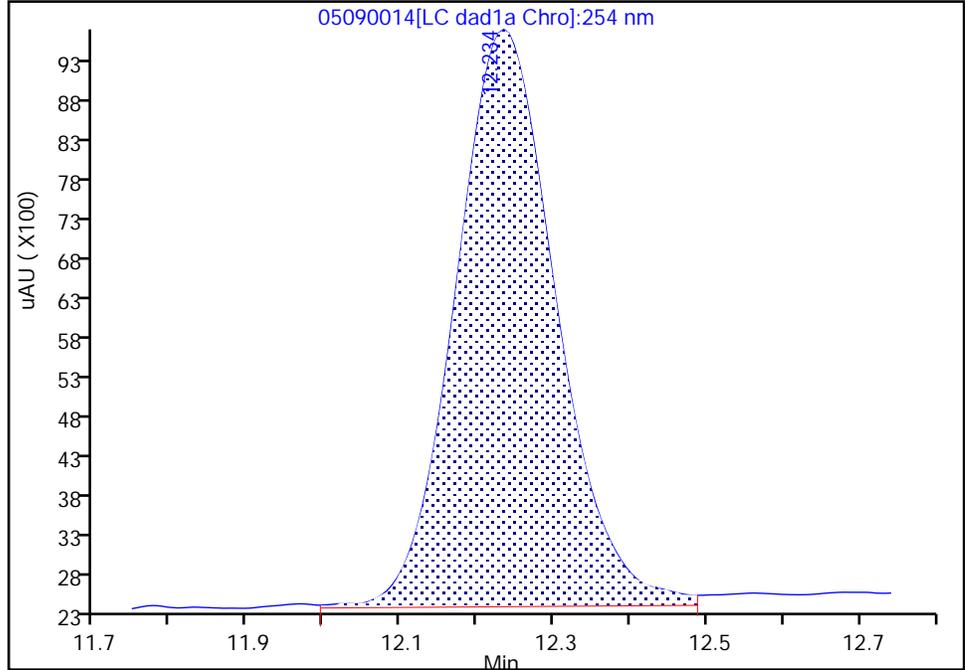
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

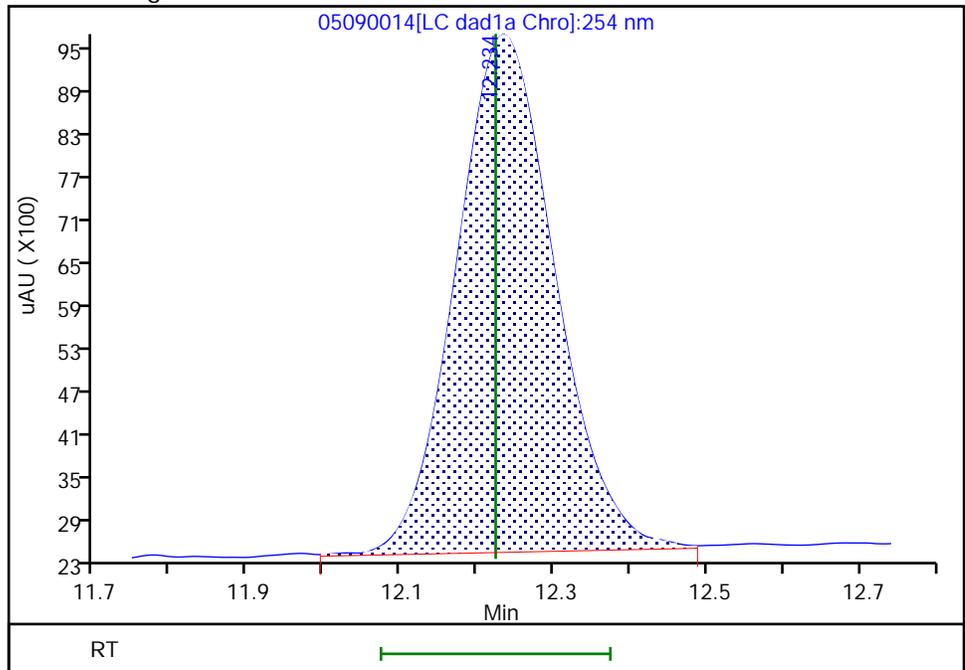
RT: 12.23
Area: 66709
Amount: 0.257873
Amount Units: ug/ml

Processing Integration Results



RT: 12.23
Area: 65555
Amount: 0.253412
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

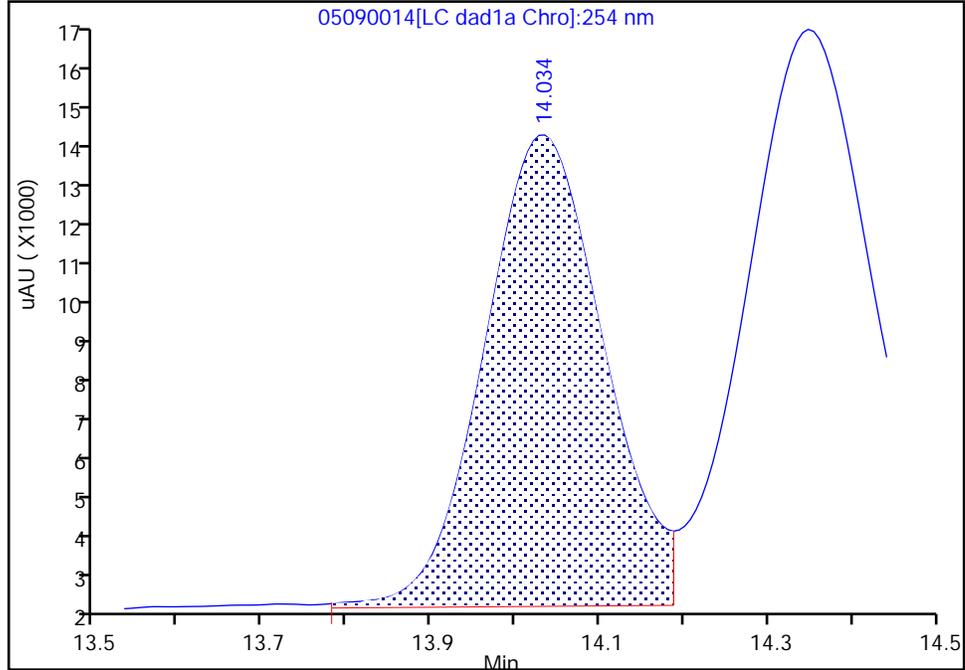
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

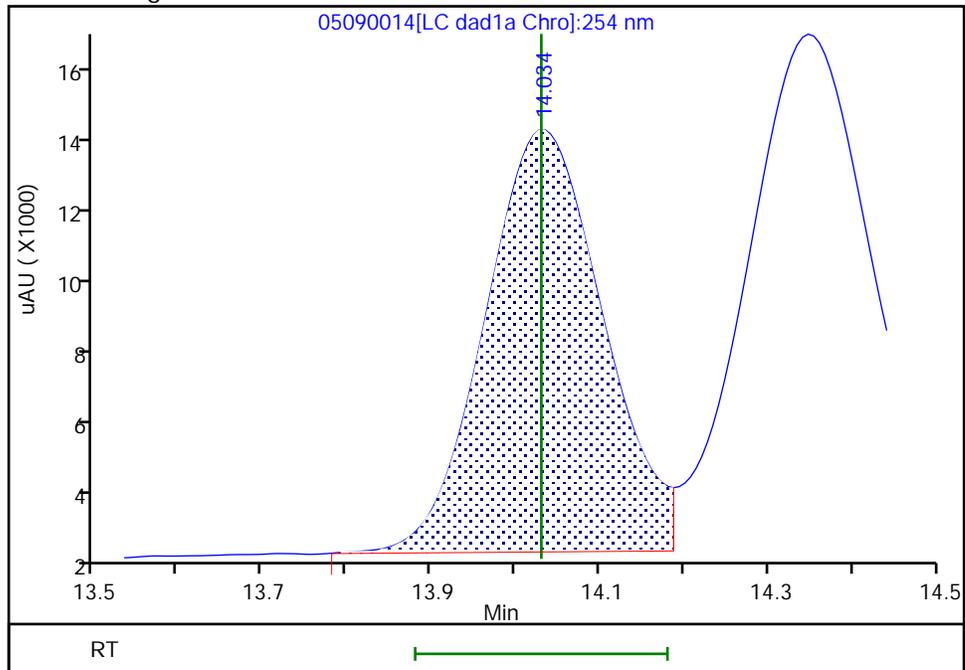
RT: 14.03
Area: 113188
Amount: 0.260651
Amount Units: ug/ml

Processing Integration Results



RT: 14.03
Area: 111431
Amount: 0.256572
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

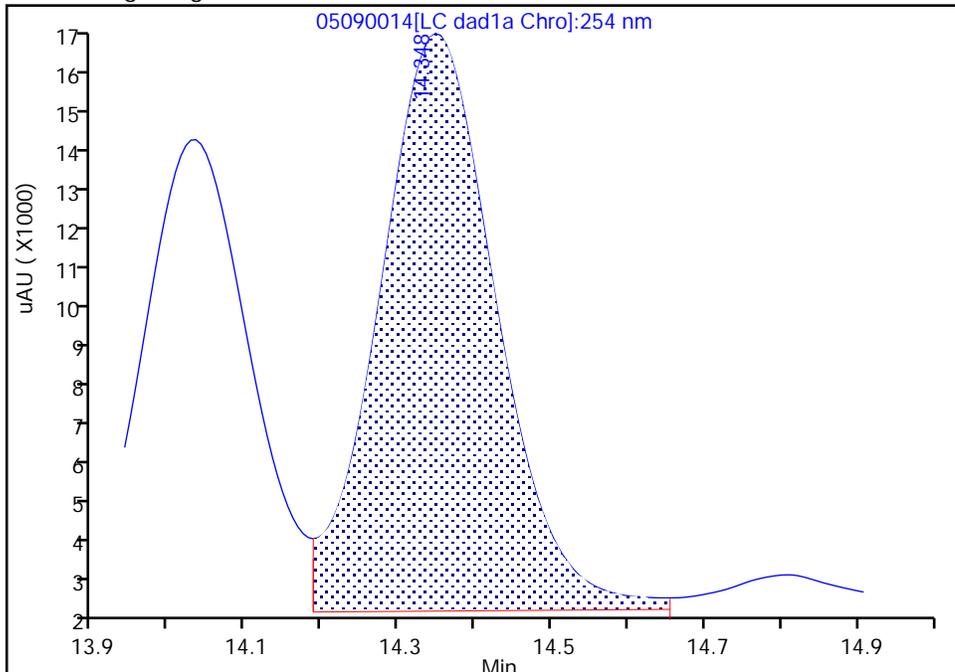
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
 Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

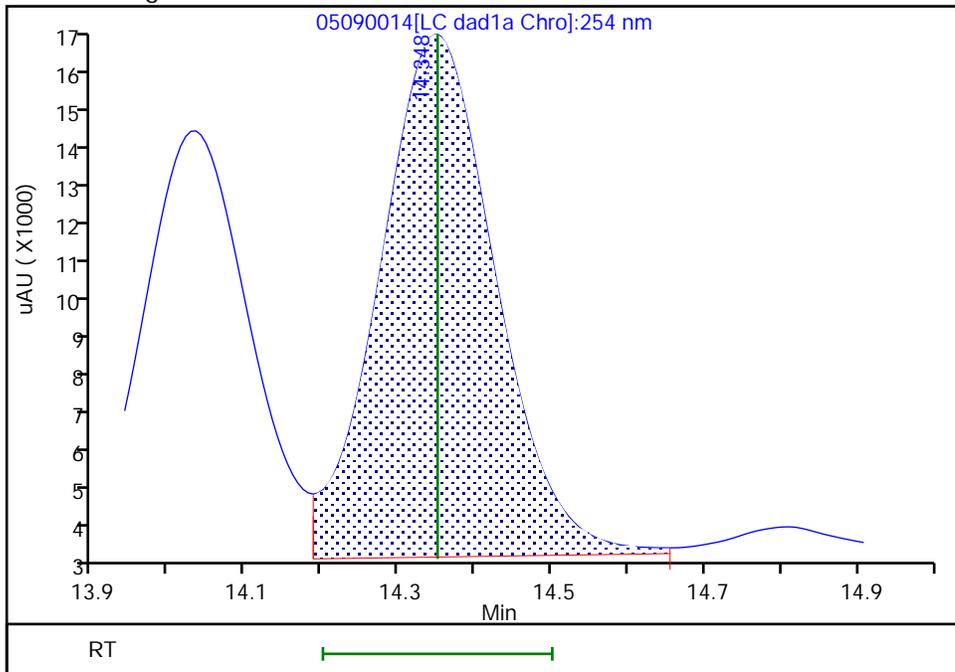
RT: 14.35
 Area: 149395
 Amount: 0.253462
 Amount Units: ug/ml

Processing Integration Results



RT: 14.35
 Area: 145937
 Amount: 0.247595
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

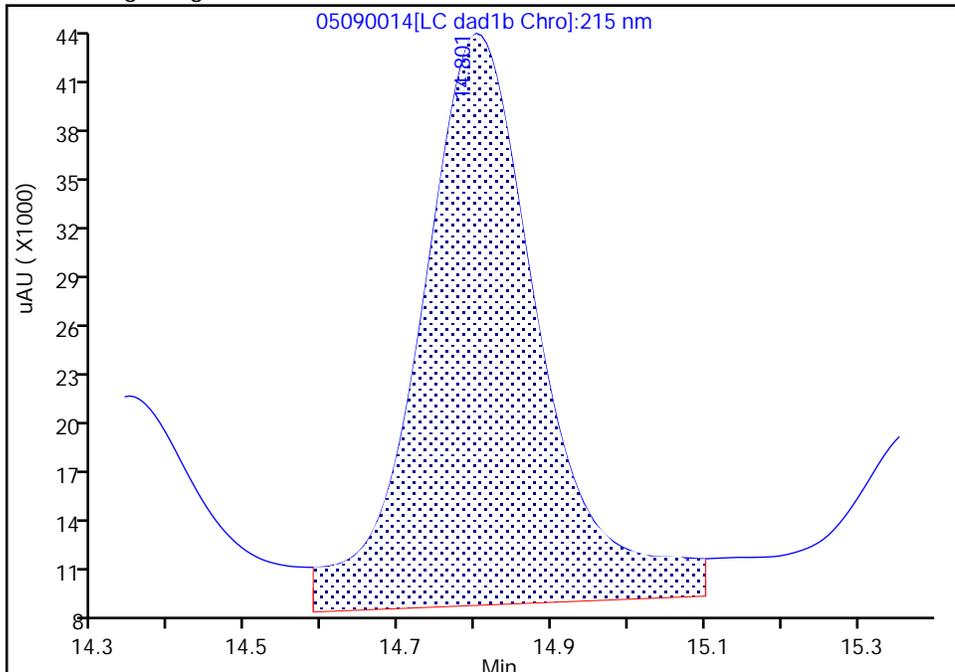
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

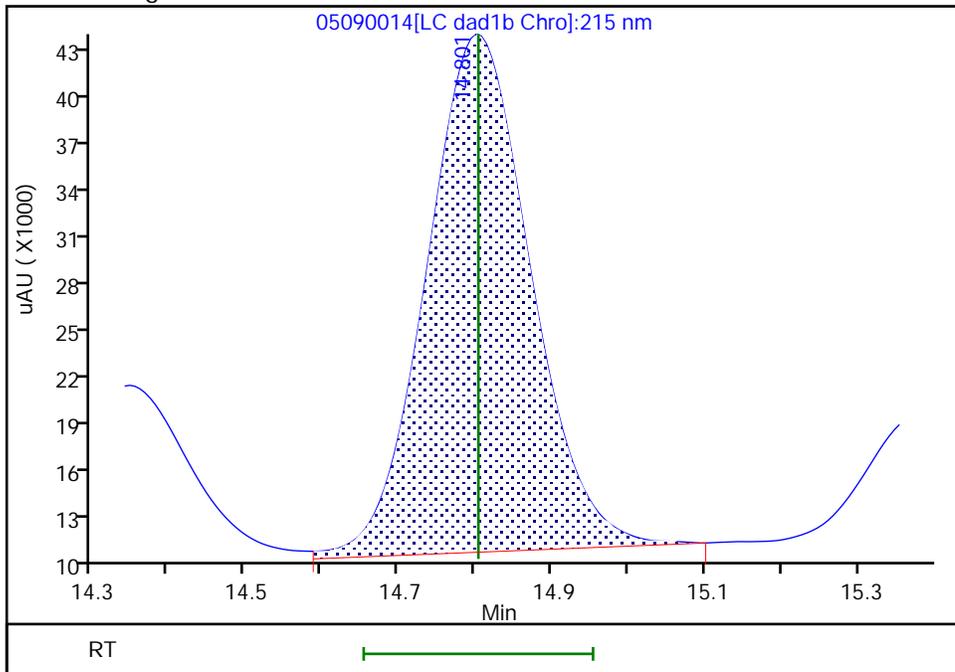
RT: 14.80
Area: 379957
Amount: 3.179430
Amount Units: ug/ml

Processing Integration Results



RT: 14.80
Area: 309271
Amount: 2.587939
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:08 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

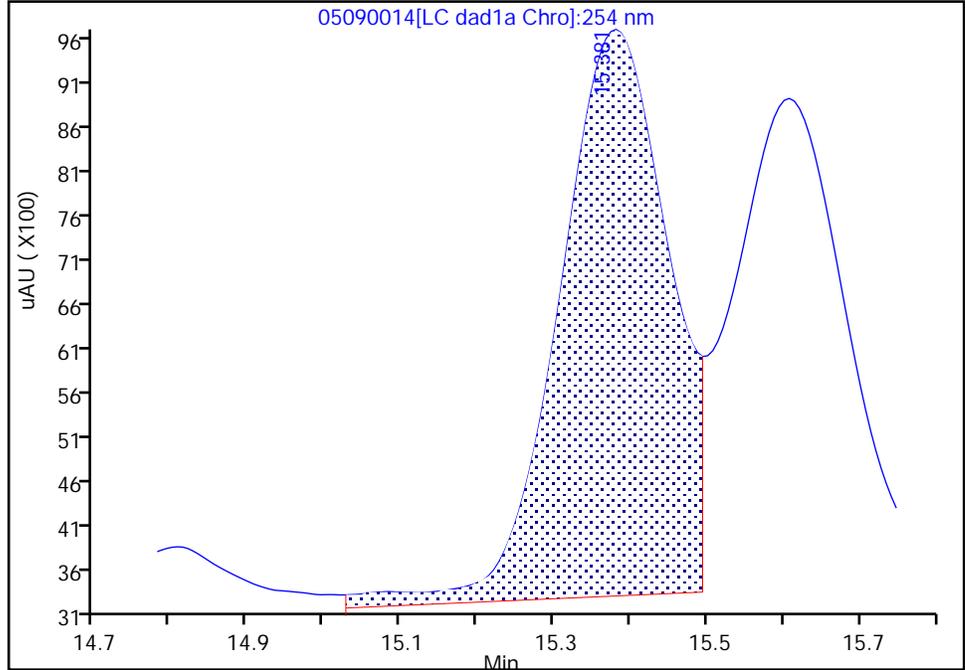
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

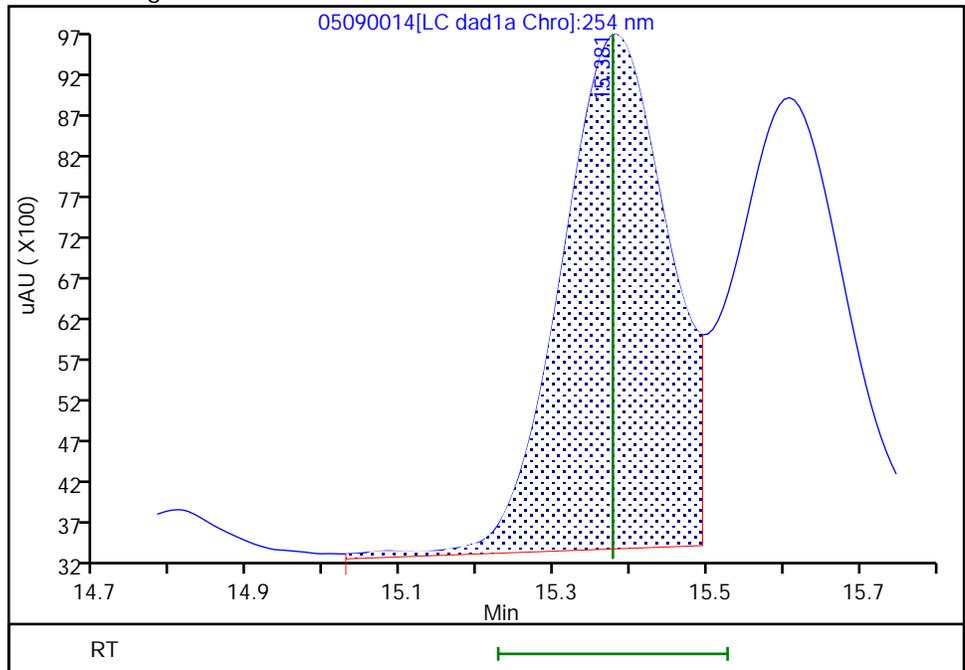
RT: 15.38
Area: 63247
Amount: 0.258579
Amount Units: ug/ml

Processing Integration Results



RT: 15.38
Area: 61035
Amount: 0.249536
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

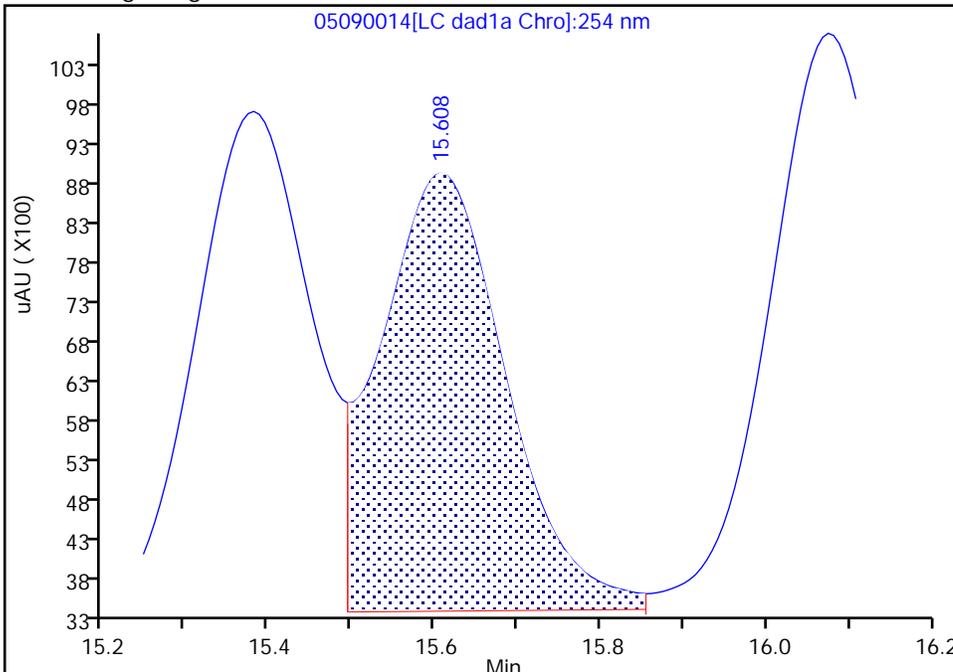
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

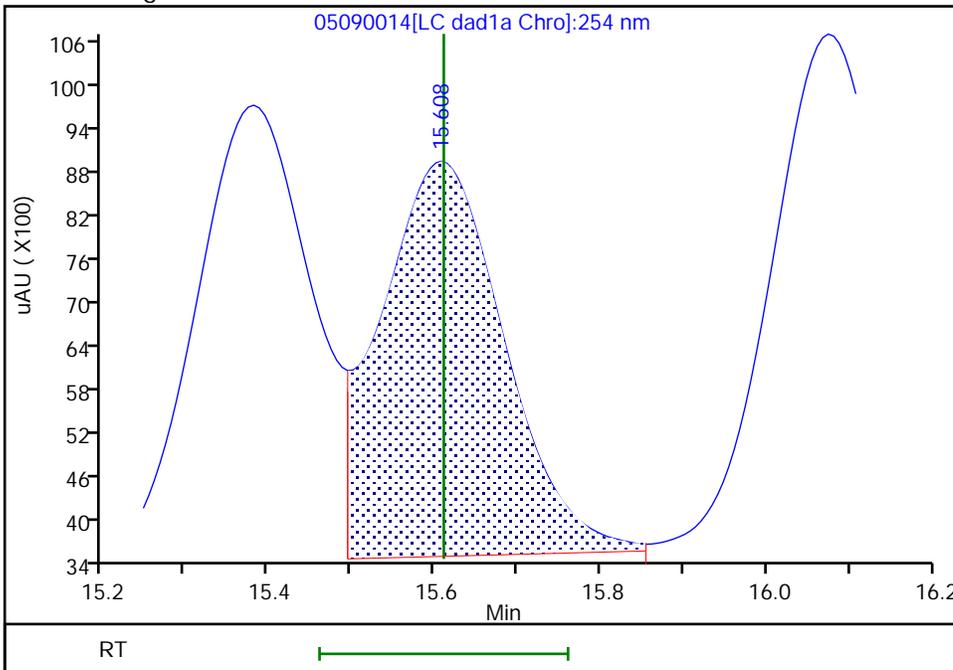
RT: 15.61
Area: 57530
Amount: 0.260021
Amount Units: ug/ml

Processing Integration Results



RT: 15.61
Area: 55900
Amount: 0.252535
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

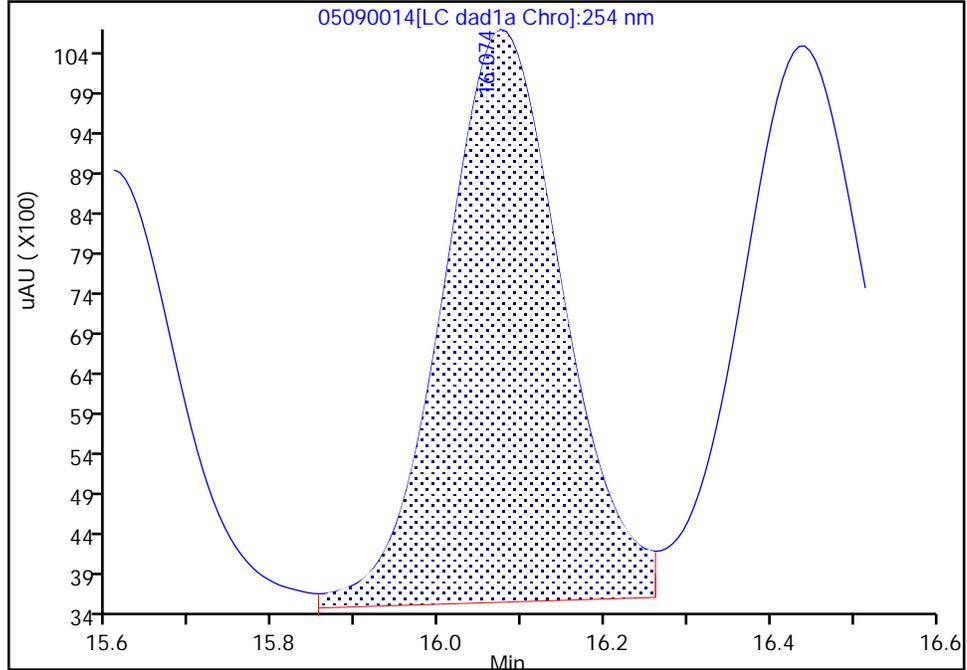
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

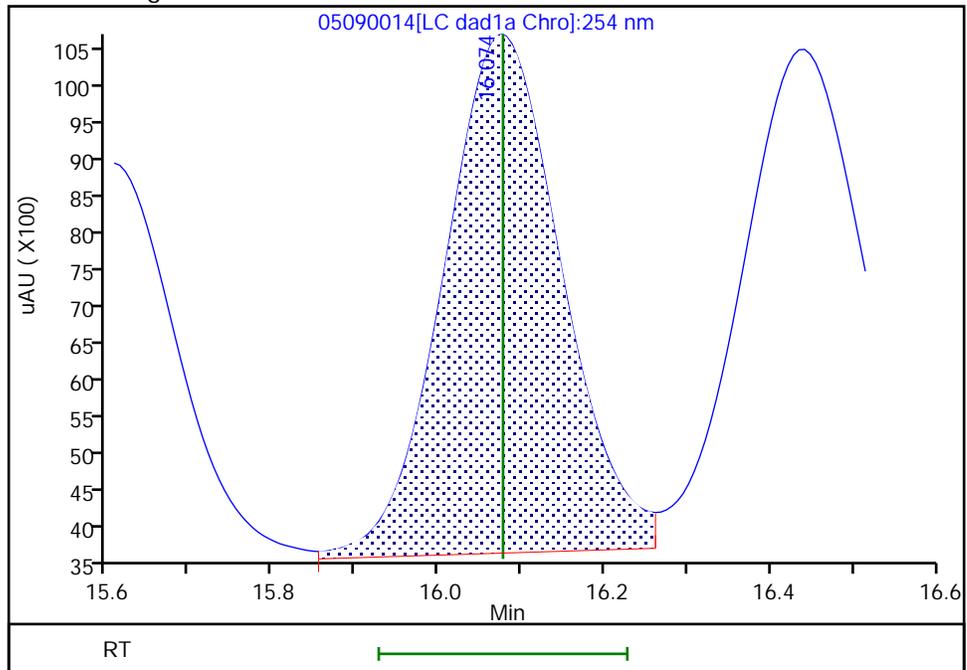
RT: 16.07
Area: 71808
Amount: 0.263683
Amount Units: ug/ml

Processing Integration Results



RT: 16.07
Area: 69587
Amount: 0.255442
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

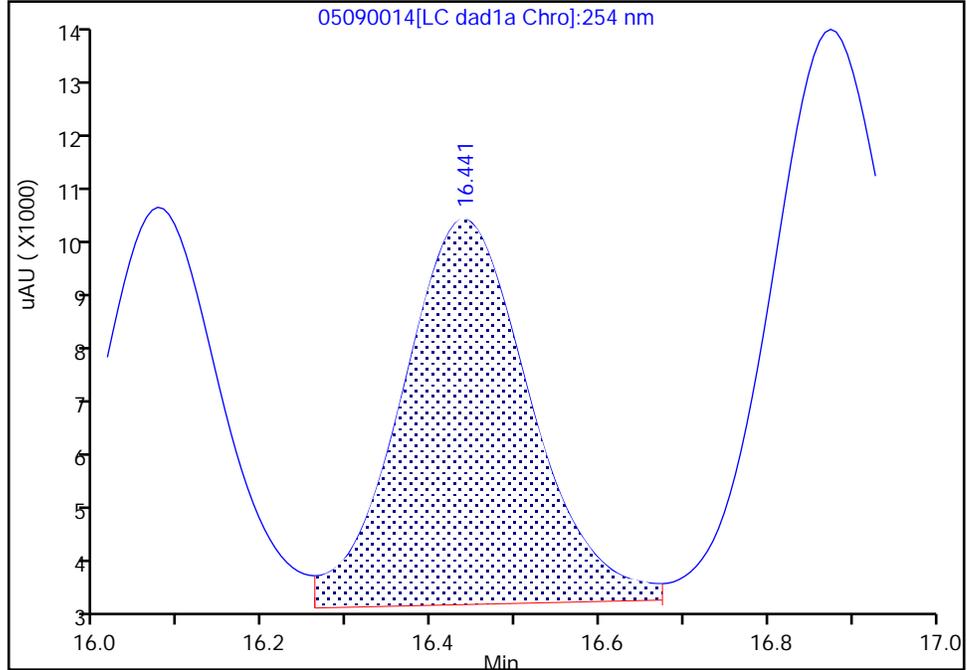
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

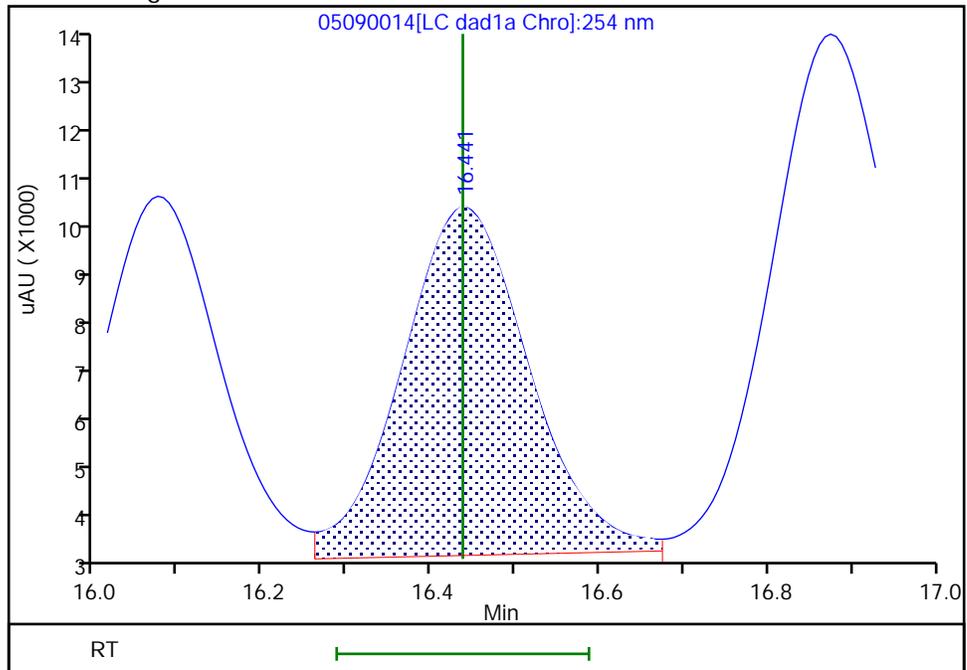
RT: 16.44
Area: 72626
Amount: 0.260015
Amount Units: ug/ml

Processing Integration Results



RT: 16.44
Area: 70766
Amount: 0.253266
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

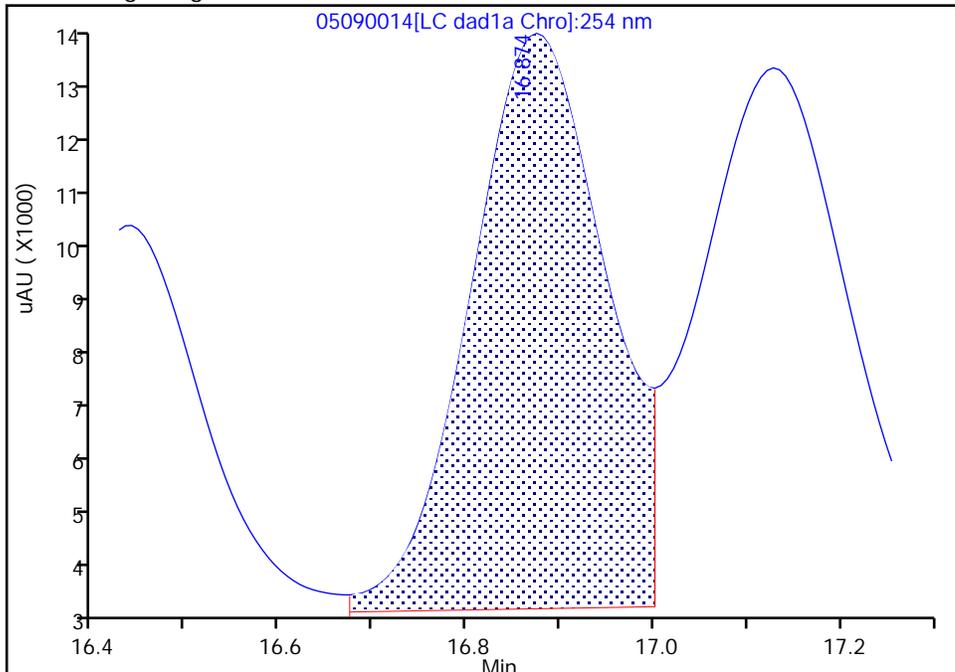
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

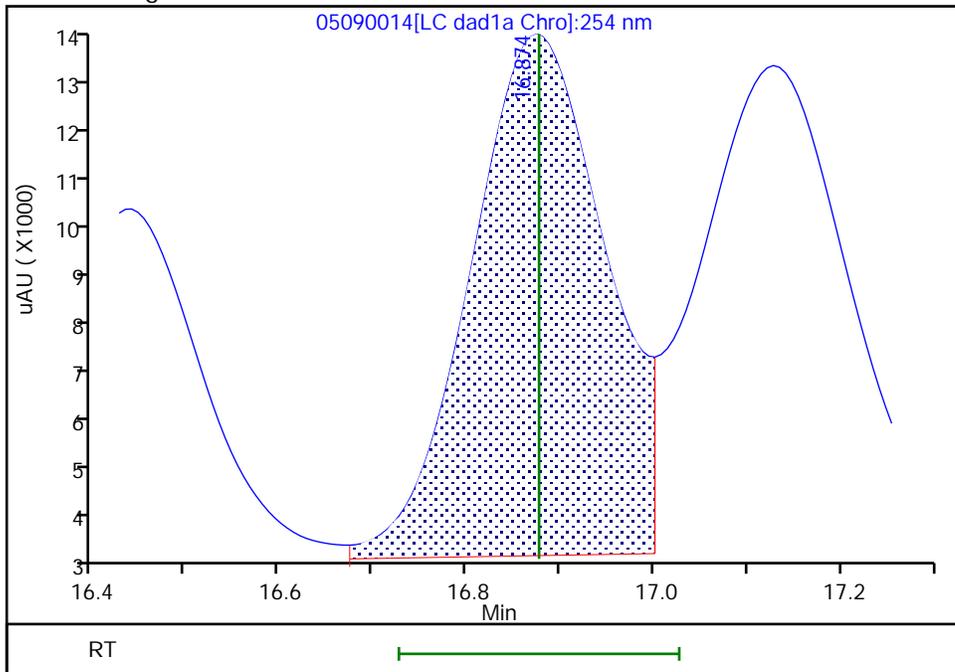
RT: 16.87
Area: 100714
Amount: 0.248332
Amount Units: ug/ml

Processing Integration Results



RT: 16.87
Area: 99430
Amount: 0.245166
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

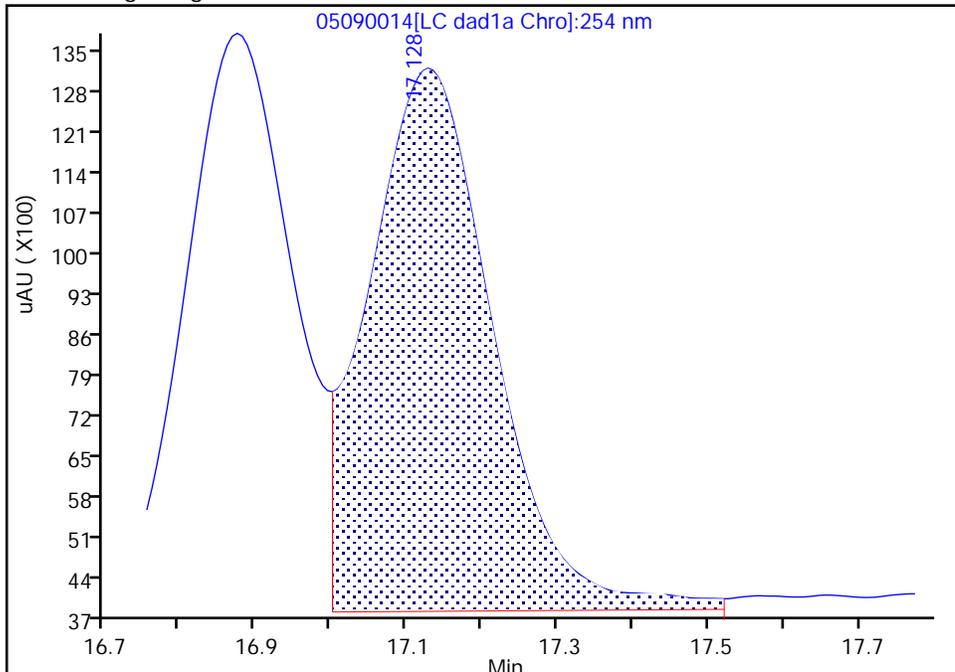
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

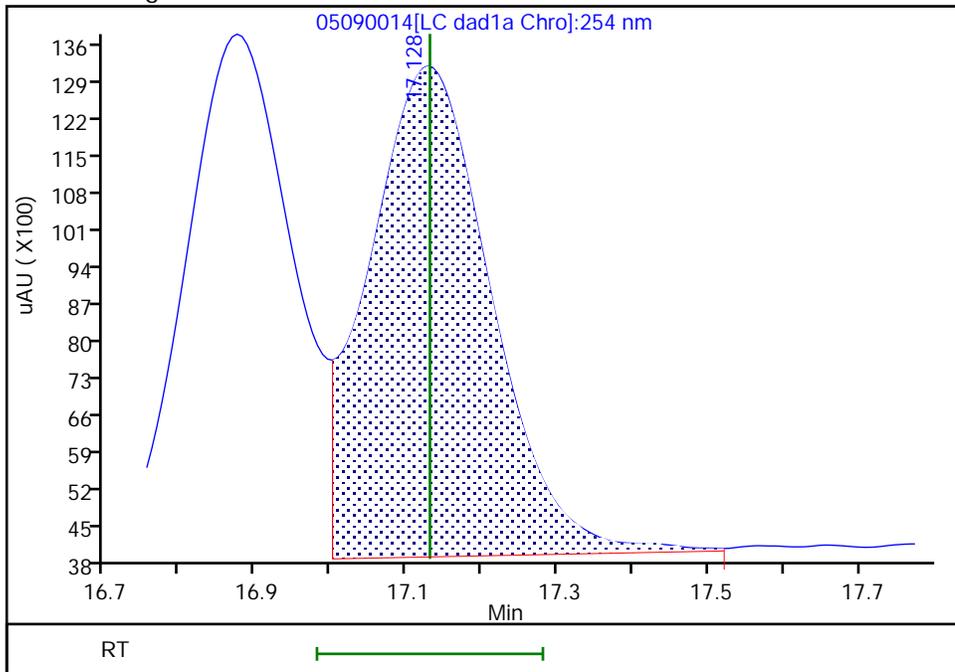
RT: 17.13
Area: 108049
Amount: 0.255161
Amount Units: ug/ml

Processing Integration Results



RT: 17.13
Area: 104321
Amount: 0.246357
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

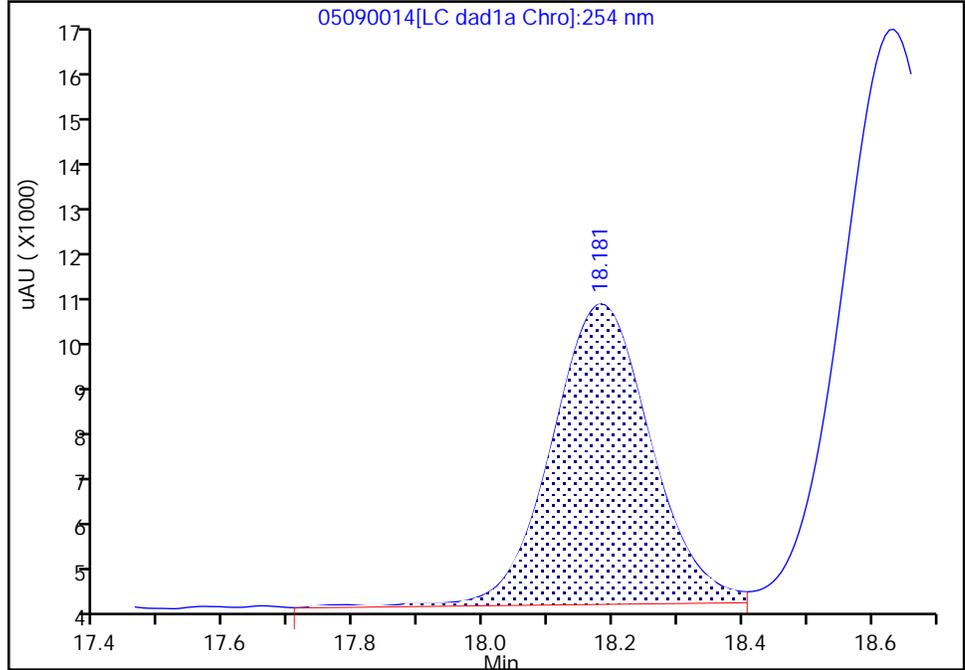
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

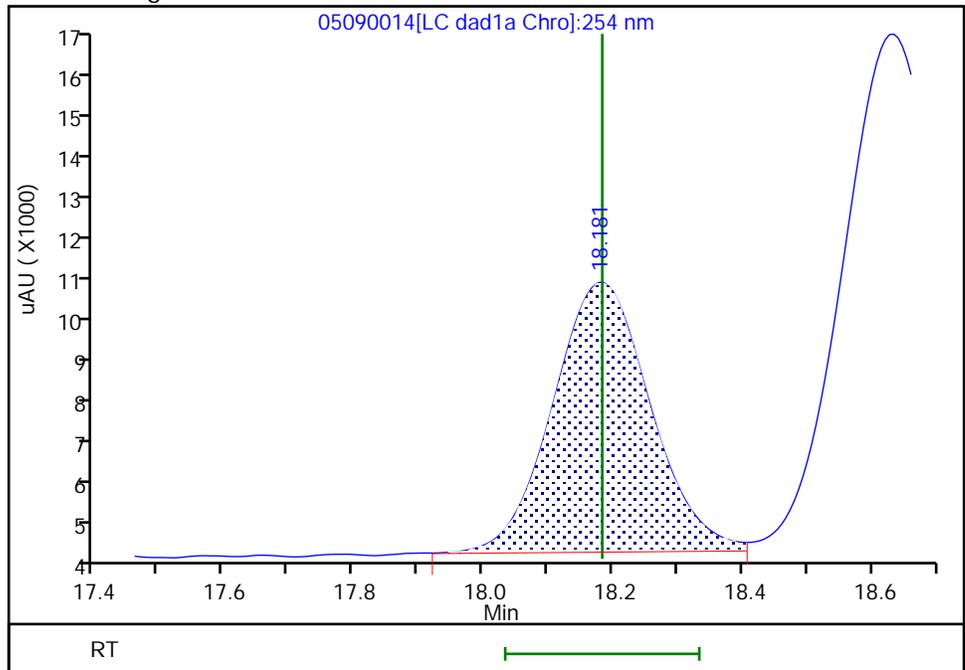
RT: 18.18
Area: 70399
Amount: 0.253261
Amount Units: ug/ml

Processing Integration Results



RT: 18.18
Area: 69411
Amount: 0.249707
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

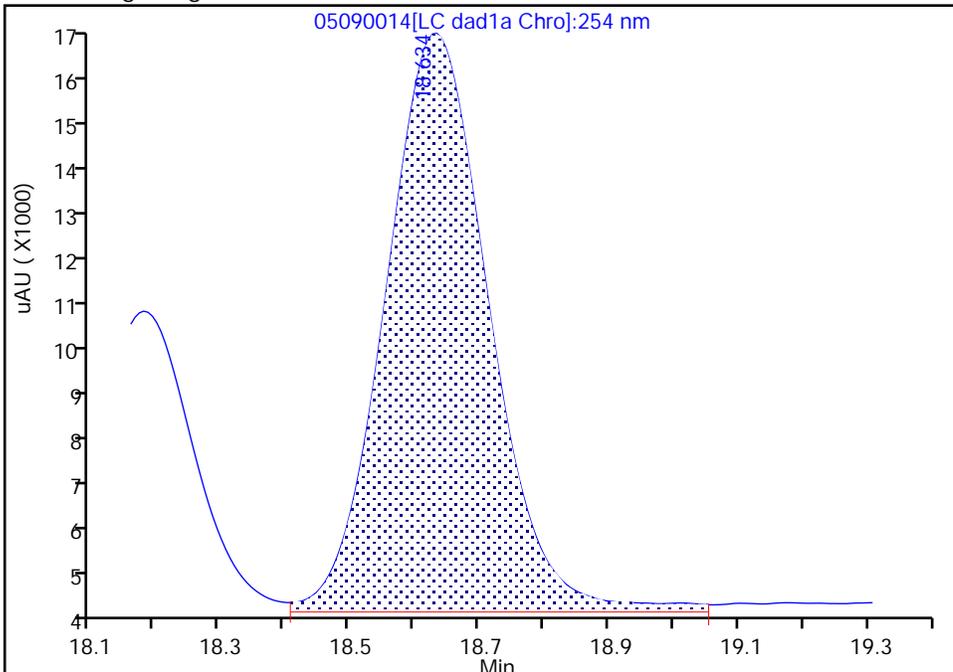
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
 Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

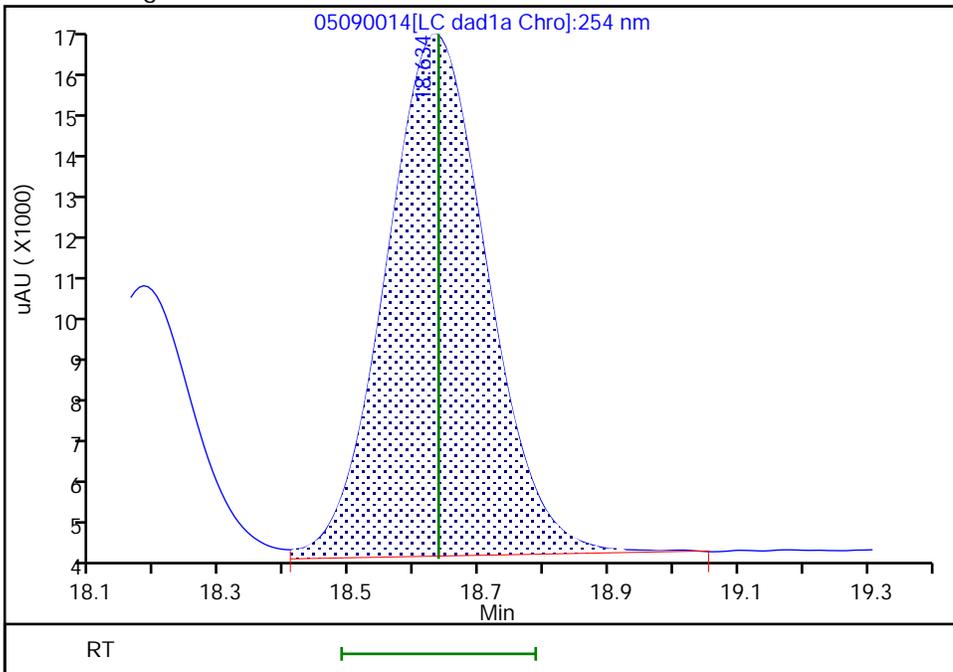
RT: 18.63
 Area: 140676
 Amount: 0.253670
 Amount Units: ug/ml

Processing Integration Results



RT: 18.63
 Area: 137728
 Amount: 0.248354
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:17 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

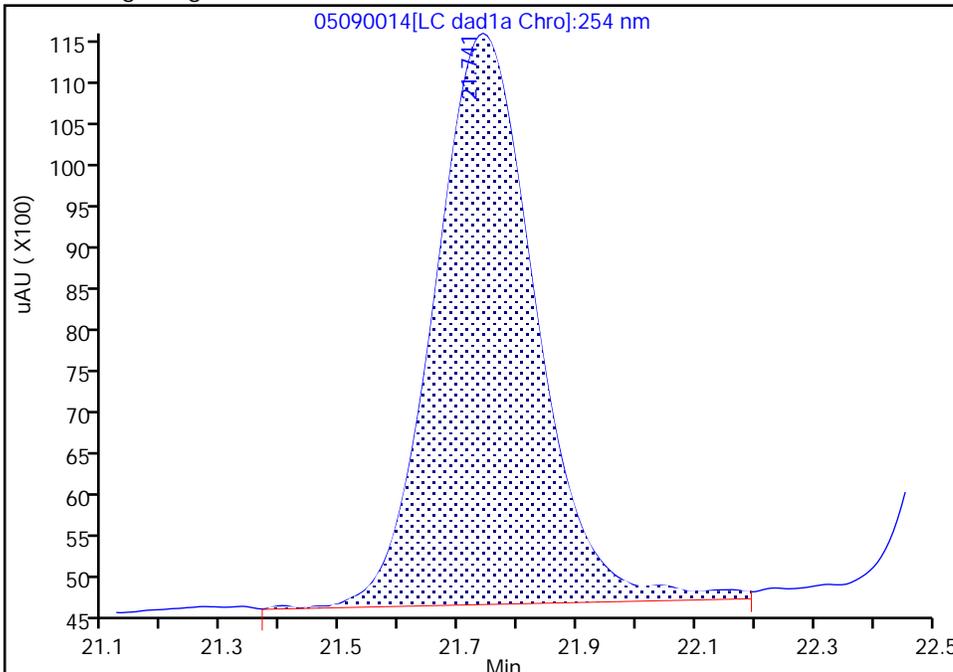
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

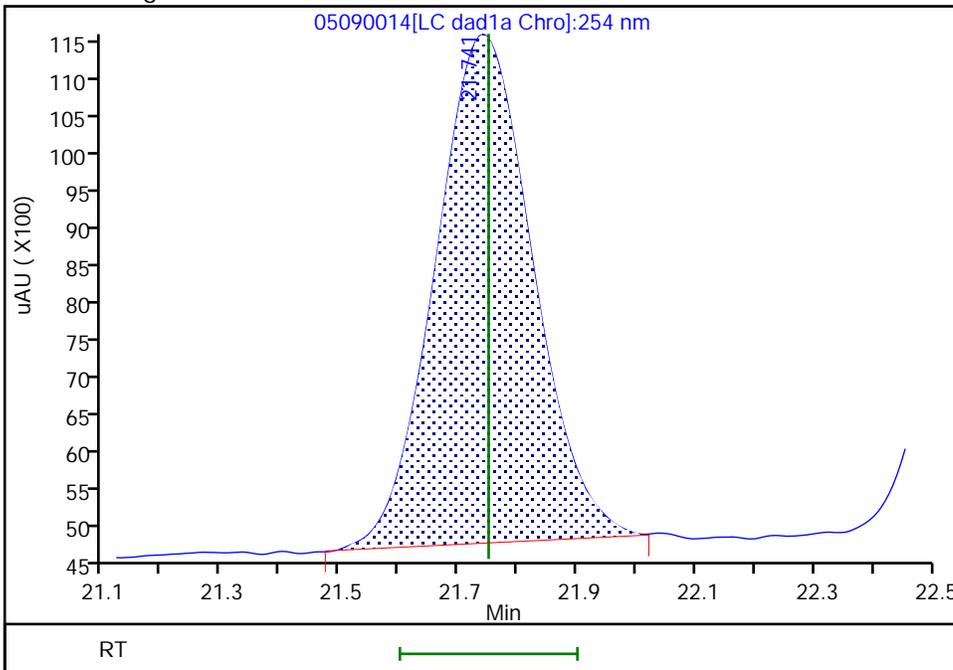
RT: 21.74
Area: 81867
Amount: 0.260982
Amount Units: ug/ml

Processing Integration Results



RT: 21.74
Area: 76993
Amount: 0.245359
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:59:29 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

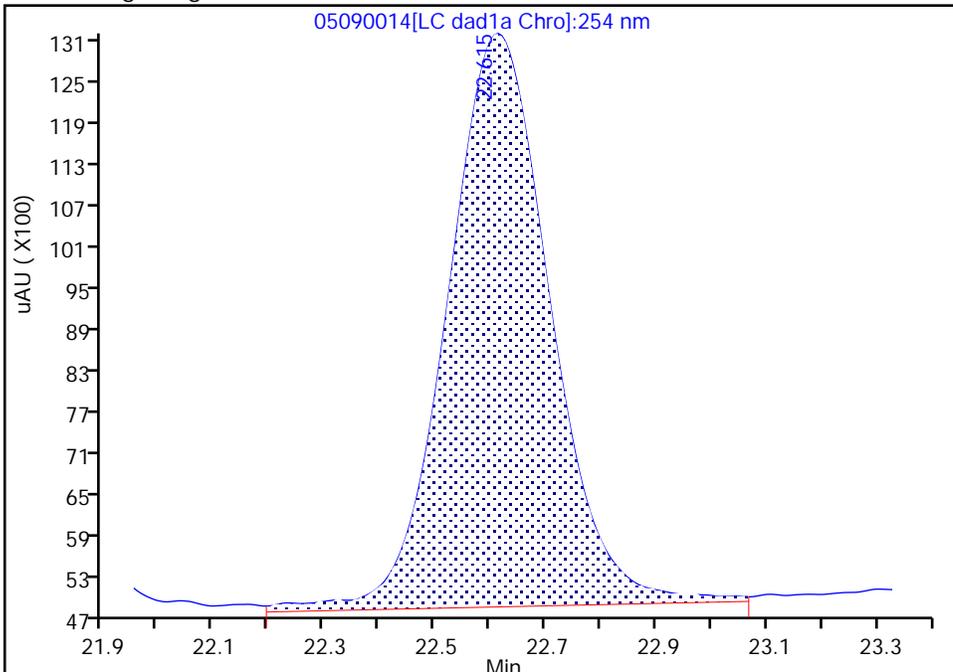
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090014.d
Injection Date: 09-May-2024 21:28:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

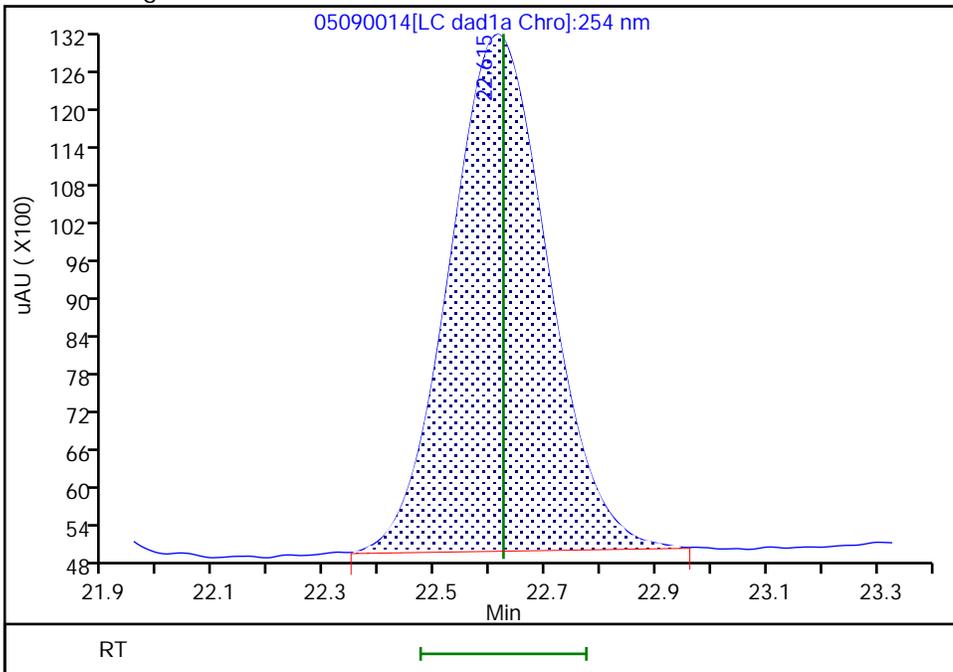
Processing Integration Results

RT: 22.61
Area: 108002
Amount: 0.270165
Amount Units: ug/ml



Manual Integration Results

RT: 22.61
Area: 101281
Amount: 0.253353
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 12:59:32 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652810/25 Calibration Date: 05/10/2024 04:04
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 05090025.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	177760		255	250	2.1	20.0
Picric acid	Ave	151397	157732		260	250	4.2	20.0
RDX	Lin2		207764		250	250	-0.0	20.0
Nitrobenzene	Ave	382120	372340		244	250	-2.6	20.0
3,5-Dinitroaniline	Lin2		454816		262	250	4.7	20.0
1,3-Dinitrobenzene	Ave	589418	587524		249	250	-0.3	20.0
Nitroglycerin	Ave	119505	123135		2580	2500	3.0	20.0
2-Nitrotoluene	Ave	244594	242020		247	250	-1.1	20.0
4-Nitrotoluene	Lin2		225212		254	250	1.8	20.0
4-Amino-2,6-dinitrotoluene	Lin2		281468		258	250	3.3	20.0
3-Nitrotoluene	Lin2		279056		250	250	-0.1	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	395980		244	250	-2.4	20.0
1,3,5-Trinitrobenzene	Ave	423454	415072		245	250	-2.0	20.0
2,6-Dinitrotoluene	Ave	277970	281660		253	250	1.3	20.0
2,4-Dinitrotoluene	Ave	554564	555312		250	250	0.1	20.0
Tetryl	Lin2		319788		255	250	1.9	20.0
2,4,6-Trinitrotoluene	Ave	399763	416292		260	250	4.1	20.0
PETN	Lin2		124154		2530	2500	1.1	20.0
1,2-Dinitrobenzene	Ave	258689	265172		256	250	2.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652810/25 Calibration Date: 05/10/2024 04:04
 Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15
 Lab File ID: 05090025.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.64	6.49	6.79
Picric acid	8.45	8.36	8.66
RDX	8.83	8.69	8.99
Nitrobenzene	11.35	11.18	11.48
3,5-Dinitroaniline	14.07	13.88	14.18
1,3-Dinitrobenzene	14.38	14.20	14.50
Nitroglycerin	14.86	14.65	14.95
2-Nitrotoluene	15.43	15.23	15.53
4-Nitrotoluene	15.67	15.46	15.76
4-Amino-2,6-dinitrotoluene	16.14	15.93	16.23
3-Nitrotoluene	16.50	16.29	16.59
2-Amino-4,6-dinitrotoluene	16.94	16.73	17.03
1,3,5-Trinitrobenzene	17.18	16.98	17.28
2,6-Dinitrotoluene	18.26	18.03	18.33
2,4-Dinitrotoluene	18.71	18.49	18.79
Tetryl	21.86	21.60	21.90
2,4,6-Trinitrotoluene	22.72	22.47	22.77
PETN	23.88	23.60	23.90
1,2-Dinitrobenzene	12.25	12.07	12.37

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\05090025.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 10-May-2024 04:04:15 ALS Bottle#: 7 Worklist Smp#: 25
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV
 Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
 Sublist: chrom-G2_8330_Luna*sub16
 Method: \\chromfs\Denver\ChromData\G2_LUNA\20240509-133213.b\G2_8330_Luna.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 16:36:56 Calib Date: 25-Apr-2024 07:39:21
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D
 Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 15:10:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.639	6.637	0.002	44440	0.2500	0.2553	
5 2,4,6-Trinitrophenol	1	8.446	8.511	-0.065	39433	0.2500	0.2605	
8 RDX	1	8.833	8.844	-0.011	51941	0.2500	0.2499	
9 Nitrobenzene	1	11.346	11.330	0.016	93085	0.2500	0.2436	M
\$ 10 1,2-Dinitrobenzene	1	12.252	12.224	0.028	66293	0.2500	0.2563	M
11 3,5-Dinitroaniline	1	14.072	14.030	0.042	113704	0.2500	0.2618	M
12 1,3-Dinitrobenzene	1	14.379	14.350	0.029	146881	0.2500	0.2492	M
13 Nitroglycerin	2	14.859	14.804	0.055	307838	2.50	2.58	M
14 o-Nitrotoluene	1	15.432	15.377	0.055	60505	0.2500	0.2474	M
15 p-Nitrotoluene	1	15.666	15.610	0.056	56303	0.2500	0.2544	M
16 4-Amino-2,6-dinitrotoluene	1	16.139	16.077	0.062	70367	0.2500	0.2583	M
17 m-Nitrotoluene	1	16.499	16.437	0.062	69764	0.2500	0.2496	M
18 2-Amino-4,6-dinitrotoluene	1	16.939	16.877	0.062	98995	0.2500	0.2441	M
19 1,3,5-Trinitrobenzene	1	17.179	17.130	0.049	103768	0.2500	0.2451	M
20 2,6-Dinitrotoluene	1	18.259	18.184	0.075	70415	0.2500	0.2533	M
21 2,4-Dinitrotoluene	1	18.706	18.637	0.069	138828	0.2500	0.2503	M
22 Tetryl	1	21.859	21.751	0.108	79947	0.2500	0.2548	M
23 2,4,6-Trinitrotoluene	1	22.719	22.624	0.095	104073	0.2500	0.2603	M
24 PETN	2	23.879	23.751	0.128	310385	2.50	2.53	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d

Injection Date: 10-May-2024 04:04:15

Instrument ID: CHHPLC_G2_LUNA

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 25

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

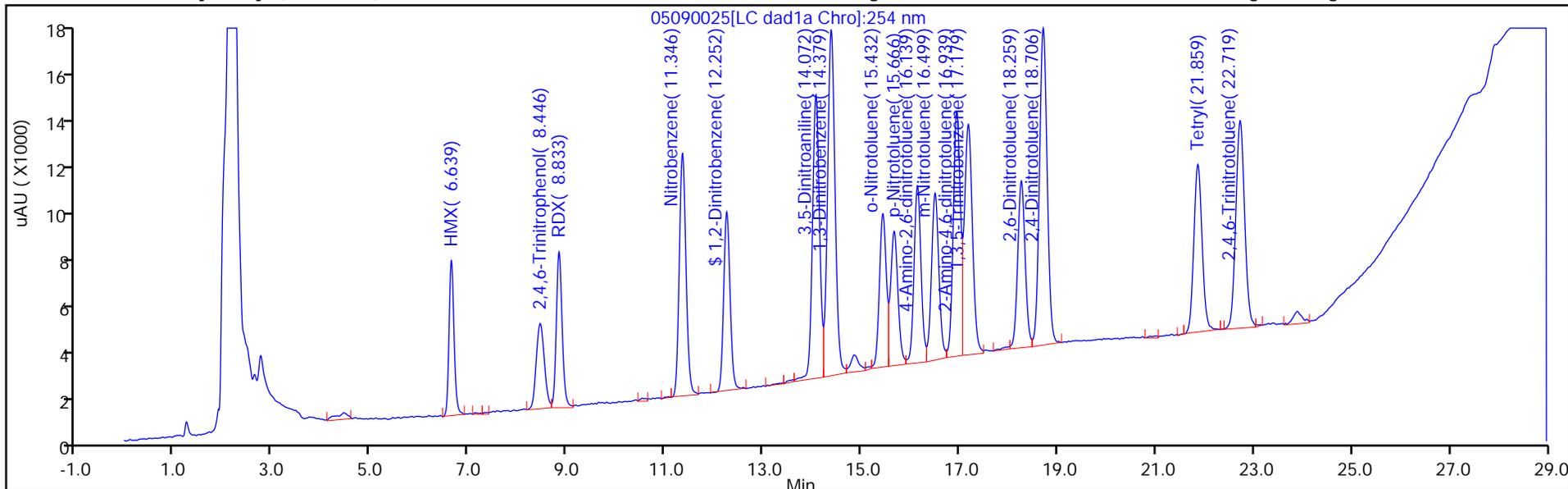
ALS Bottle#: 7

Method: G2_8330_Luna

Limit Group: GCSV - 8330

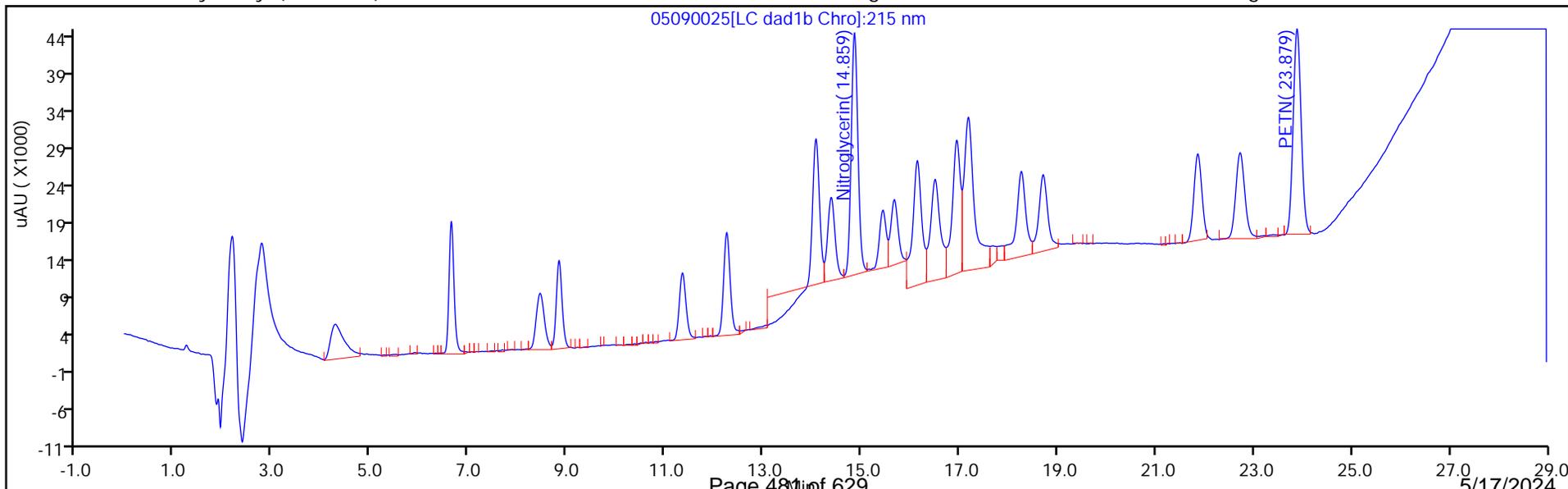
Column: Luna-Phenyl hexyl (4.60 mm)

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



Column: Luna-Phenyl hexyl (4.60 mm)

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



Eurofins Denver

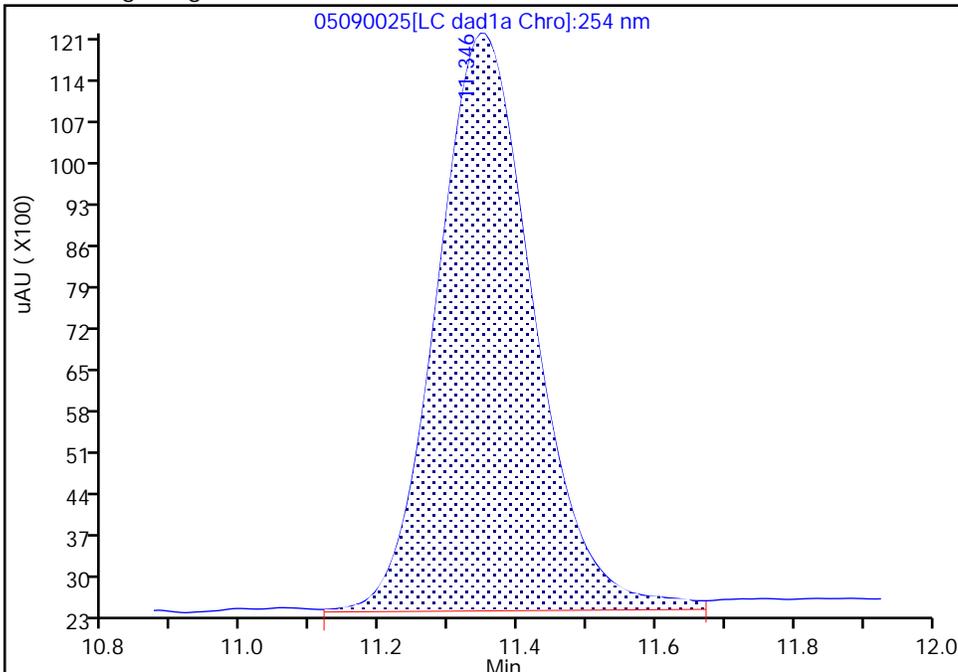
Data File:	\\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d		
Injection Date:	10-May-2024 04:04:15	Instrument ID:	CHHPLC_G2_LUNA
Lims ID:	CCV		
Client ID:			
Operator ID:	JZ	ALS Bottle#:	7 Worklist Smp#: 25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector:	LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

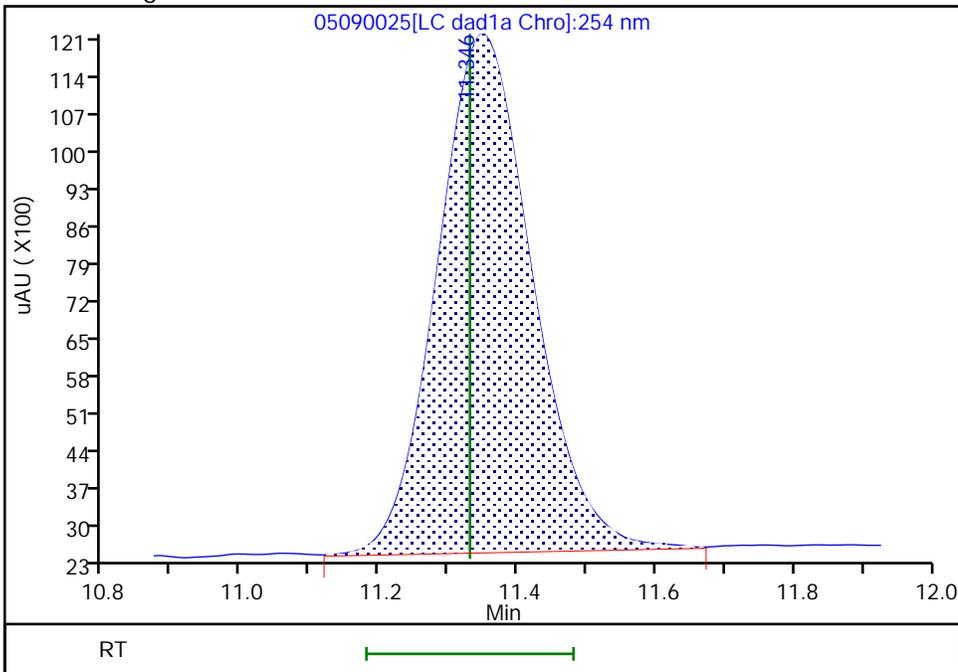
RT: 11.35
 Area: 94994
 Amount: 0.248597
 Amount Units: ug/ml

Processing Integration Results



RT: 11.35
 Area: 93085
 Amount: 0.243601
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:05 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

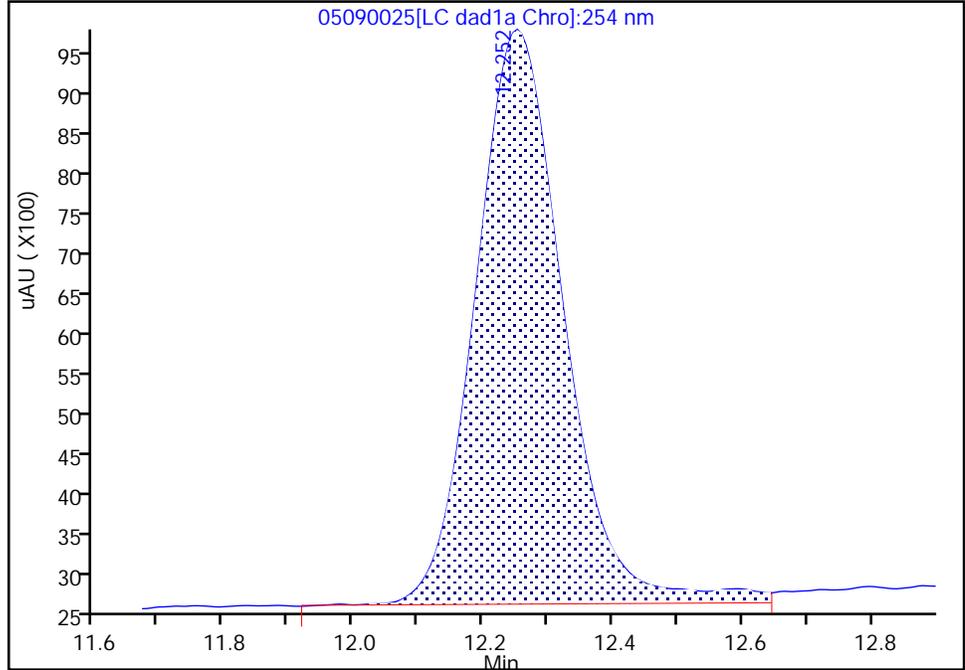
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

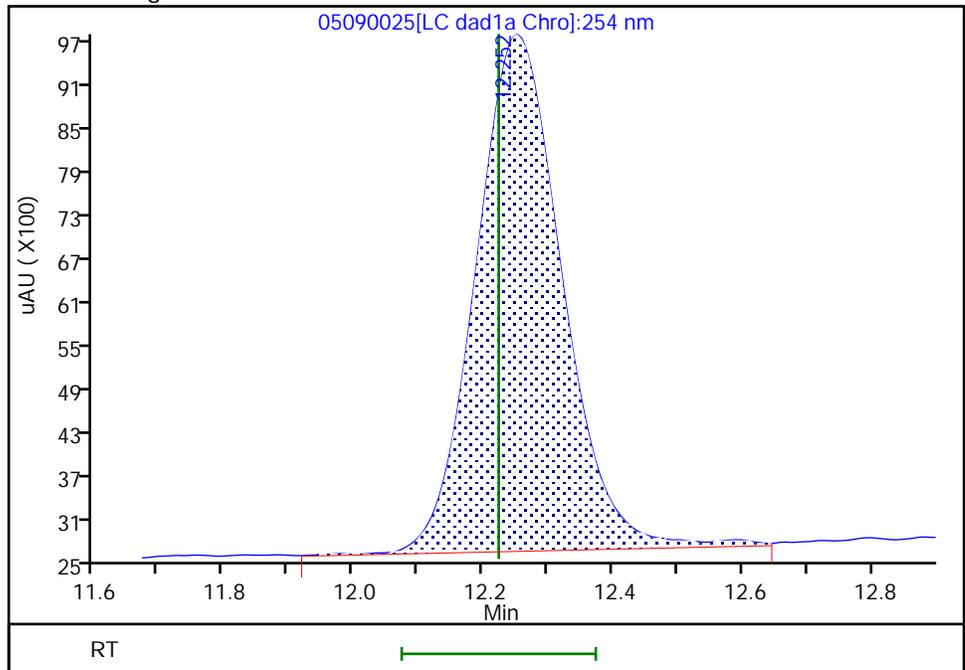
RT: 12.25
Area: 68081
Amount: 0.263177
Amount Units: ug/ml

Processing Integration Results



RT: 12.25
Area: 66293
Amount: 0.256265
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:05 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

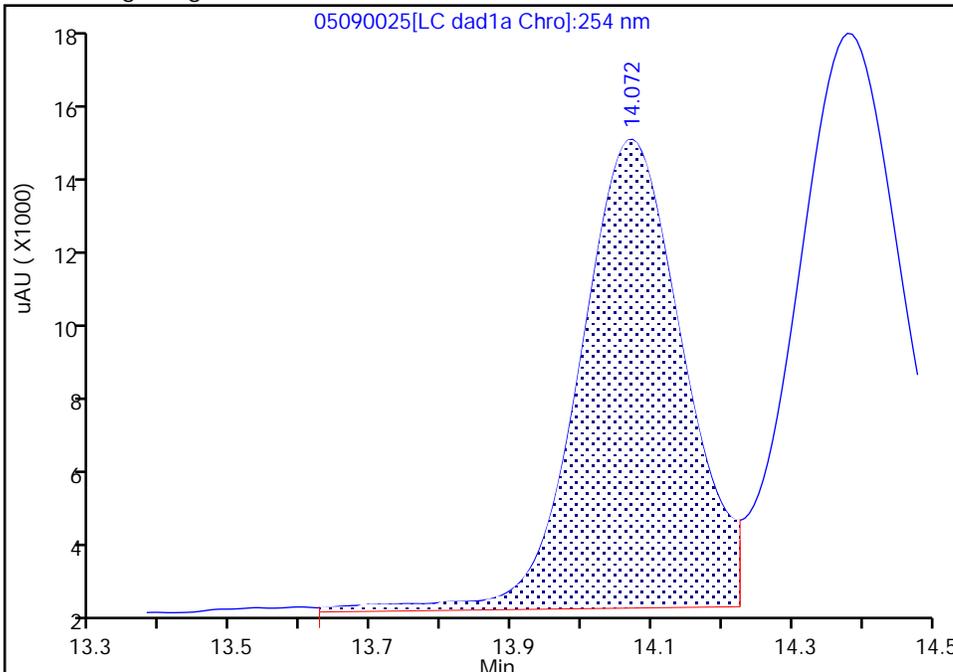
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

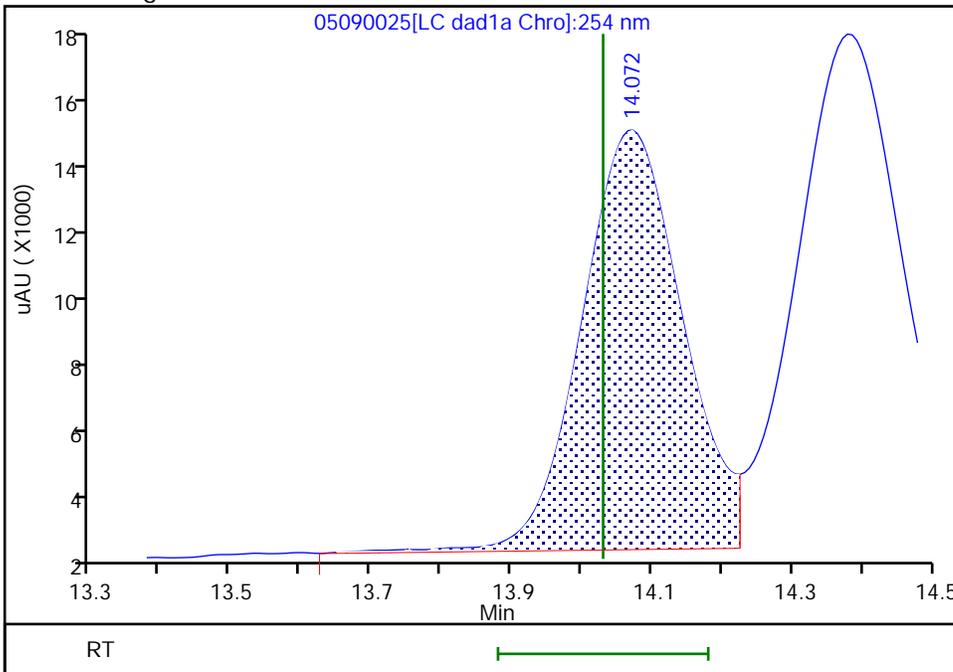
RT: 14.07
Area: 116026
Amount: 0.267240
Amount Units: ug/ml

Processing Integration Results



RT: 14.07
Area: 113704
Amount: 0.261849
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

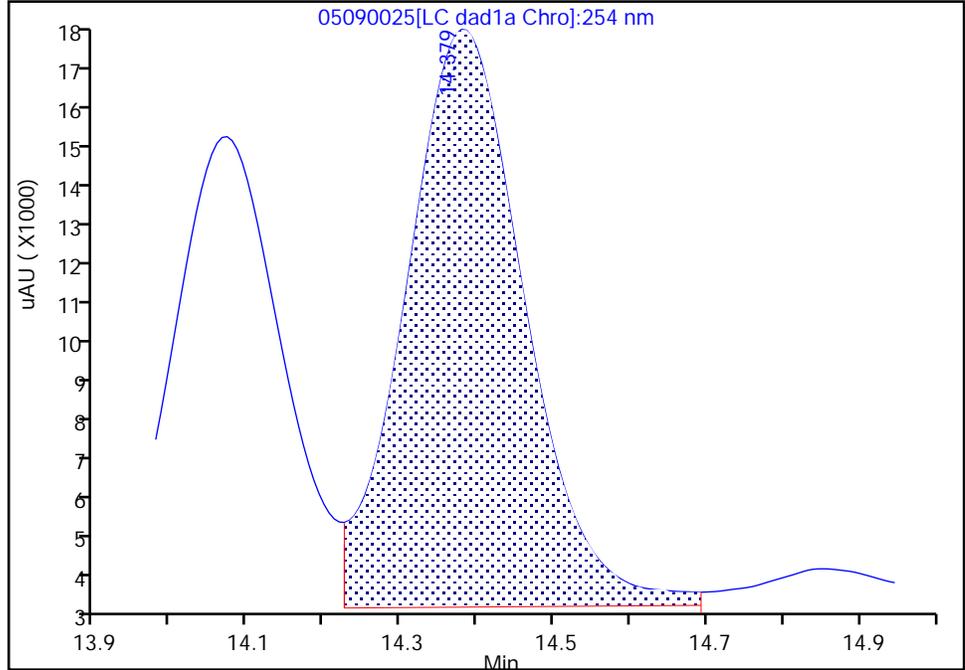
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

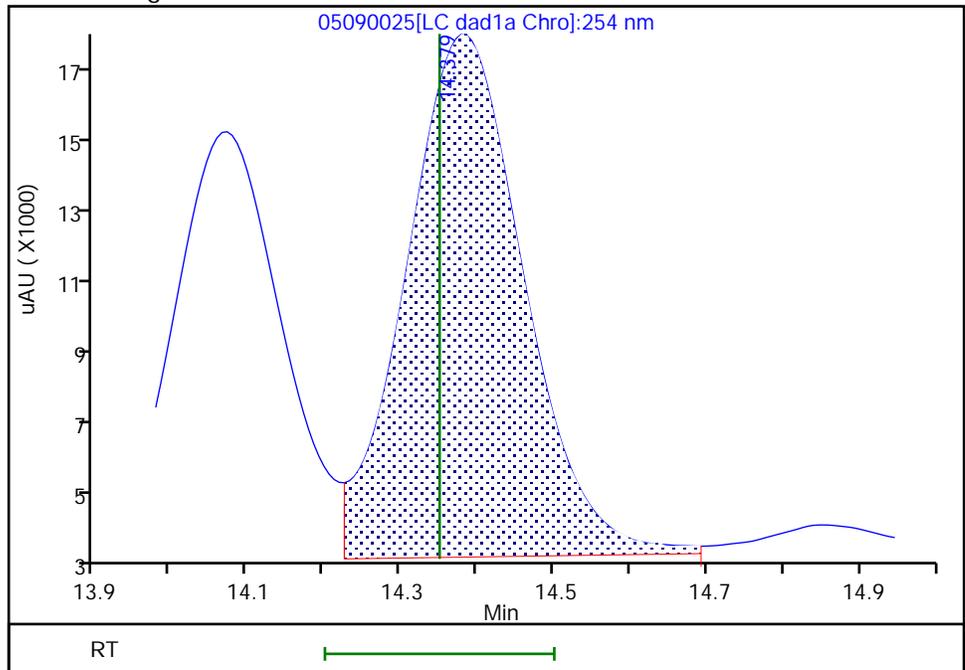
RT: 14.38
Area: 150059
Amount: 0.254588
Amount Units: ug/ml

Processing Integration Results



RT: 14.38
Area: 146881
Amount: 0.249197
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

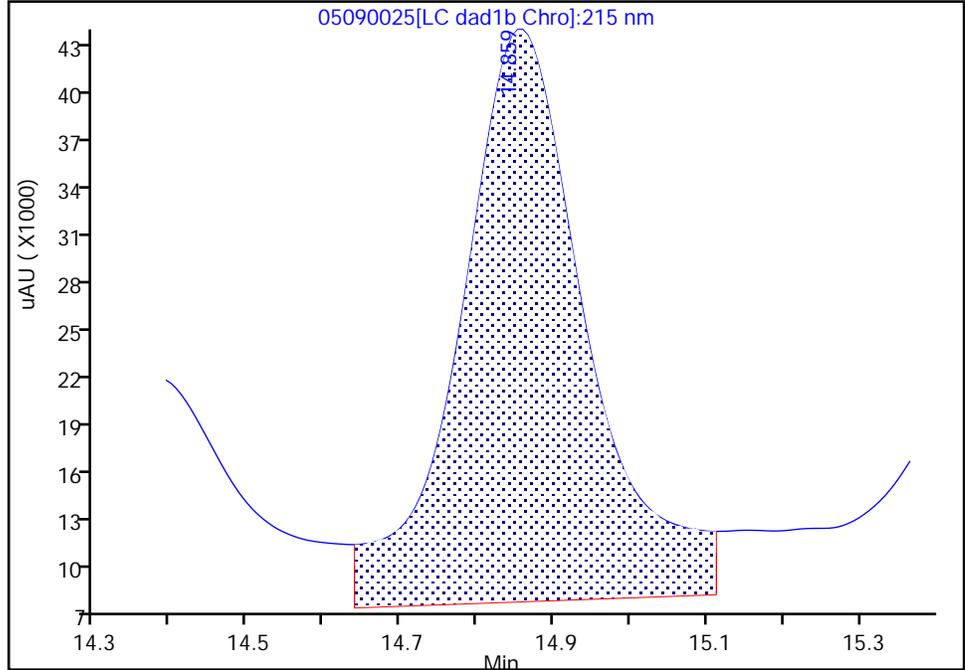
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

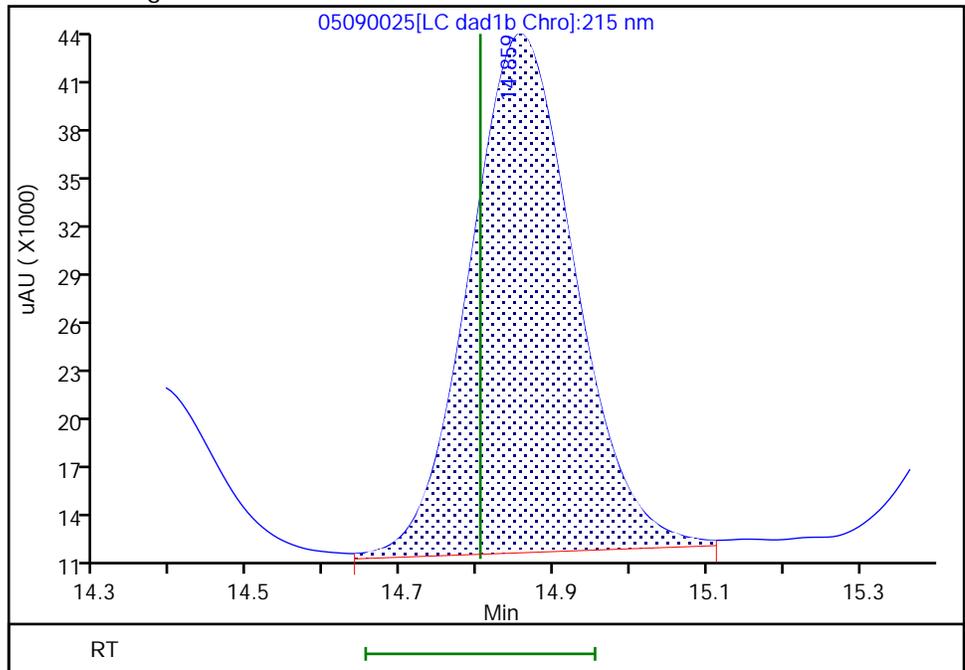
RT: 14.86
Area: 414622
Amount: 3.469502
Amount Units: ug/ml

Processing Integration Results



RT: 14.86
Area: 307838
Amount: 2.575947
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:09:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

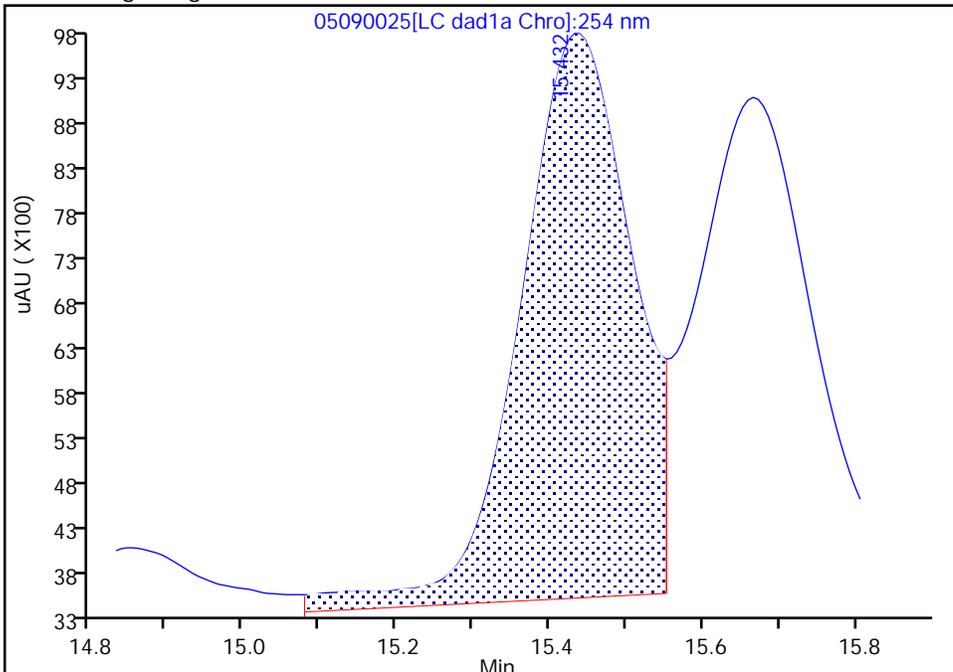
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

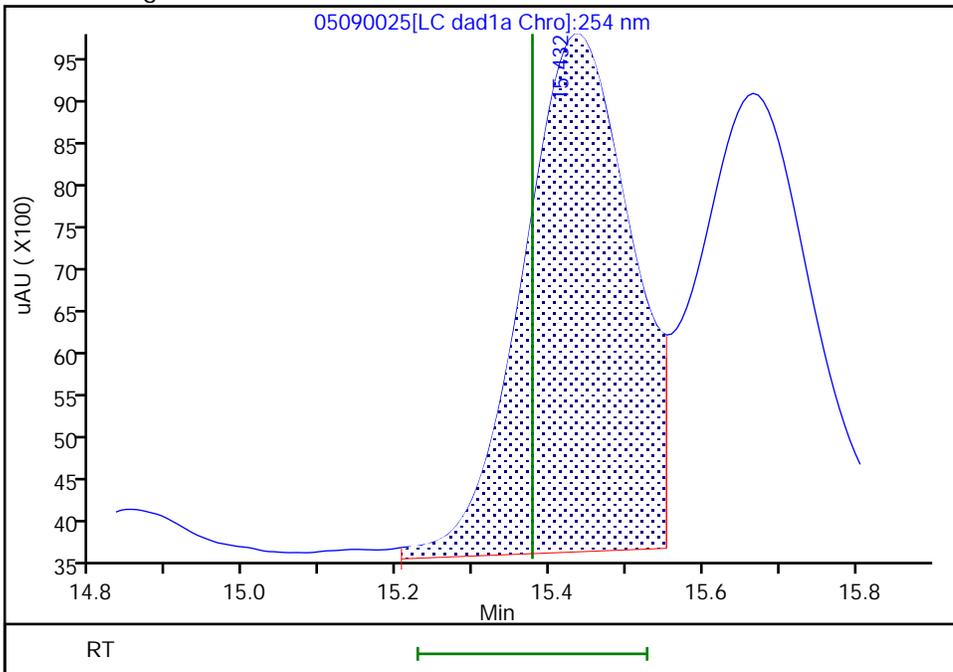
RT: 15.43
Area: 63207
Amount: 0.258416
Amount Units: ug/ml

Processing Integration Results



RT: 15.43
Area: 60505
Amount: 0.247369
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:16 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

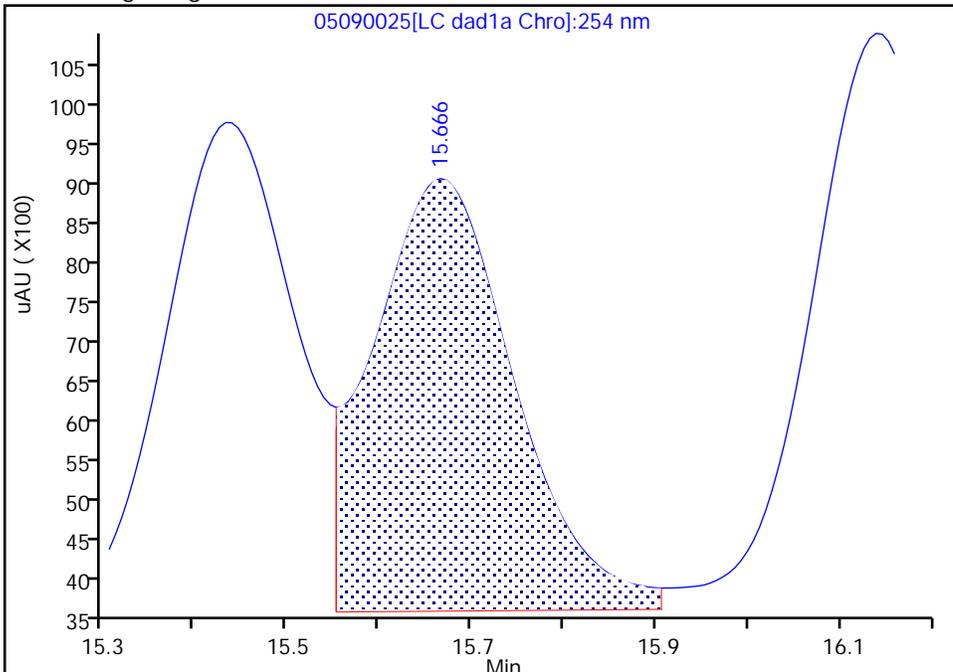
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

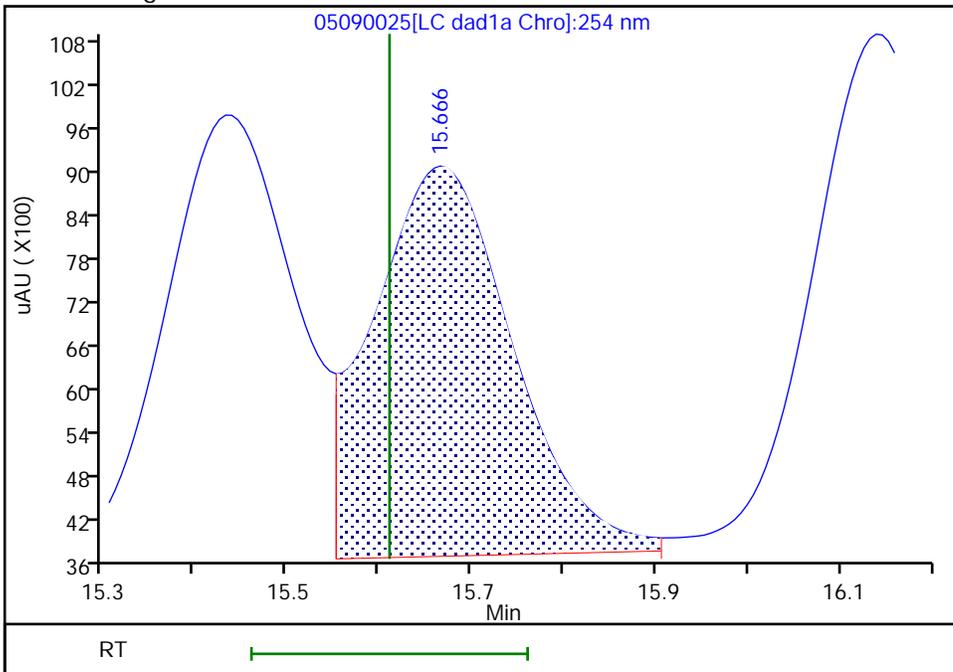
RT: 15.67
Area: 57533
Amount: 0.260035
Amount Units: ug/ml

Processing Integration Results



RT: 15.67
Area: 56303
Amount: 0.254386
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

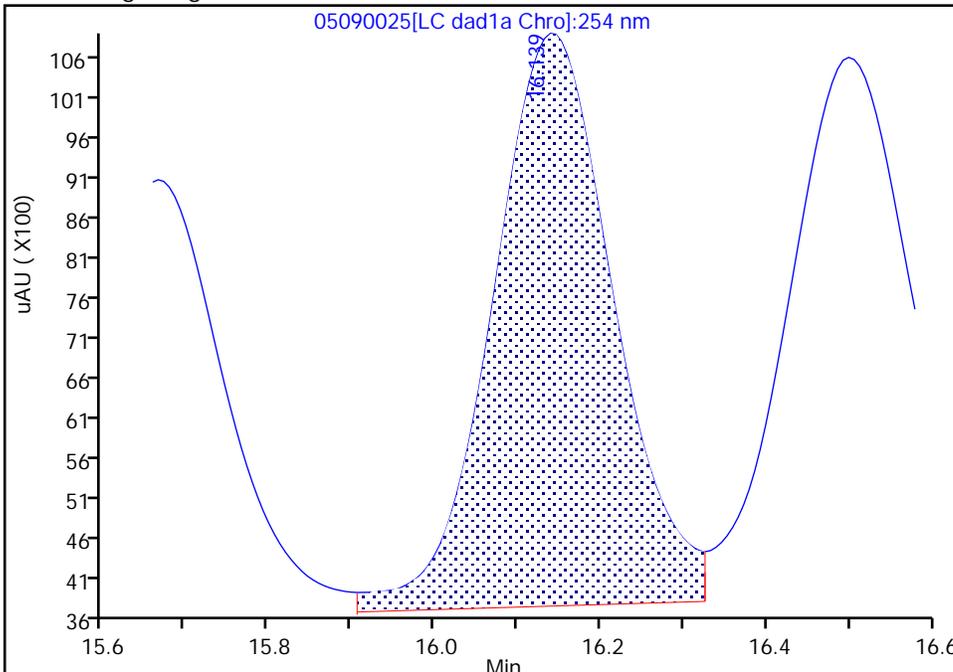
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
 Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

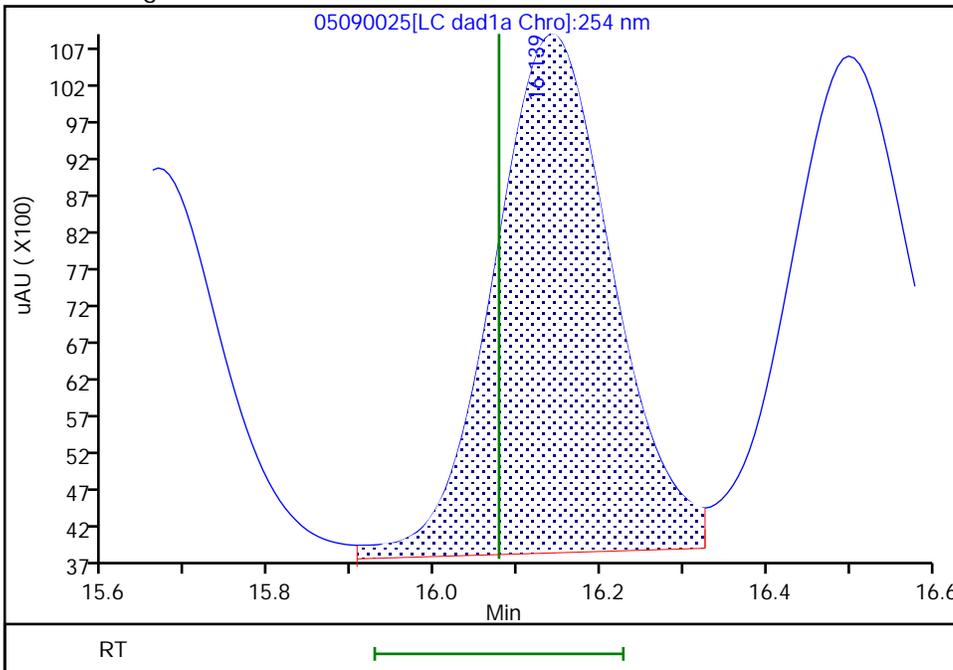
RT: 16.14
 Area: 72206
 Amount: 0.265160
 Amount Units: ug/ml

Processing Integration Results



RT: 16.14
 Area: 70367
 Amount: 0.258337
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

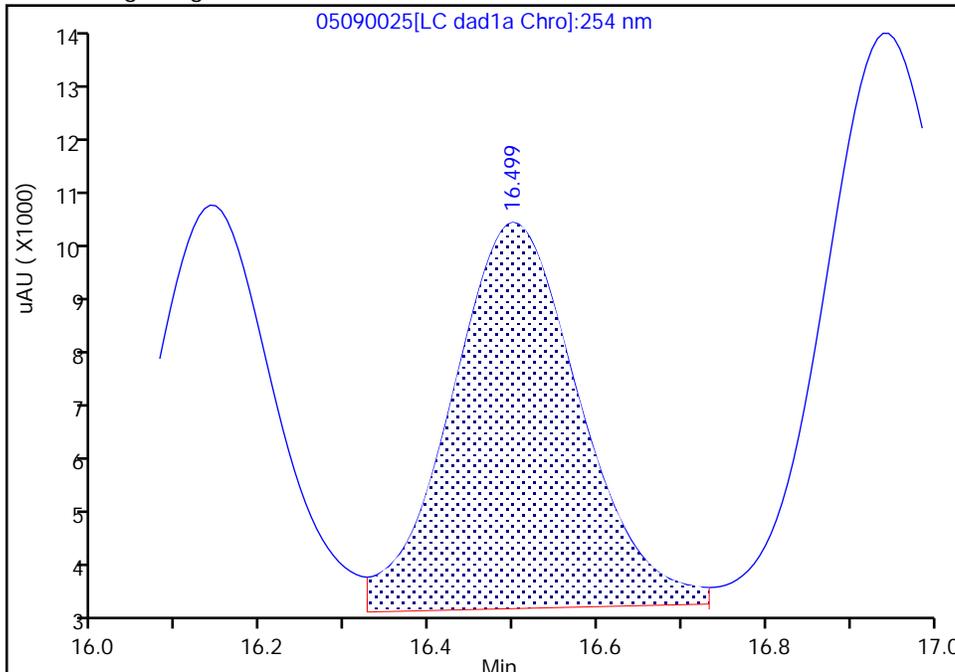
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

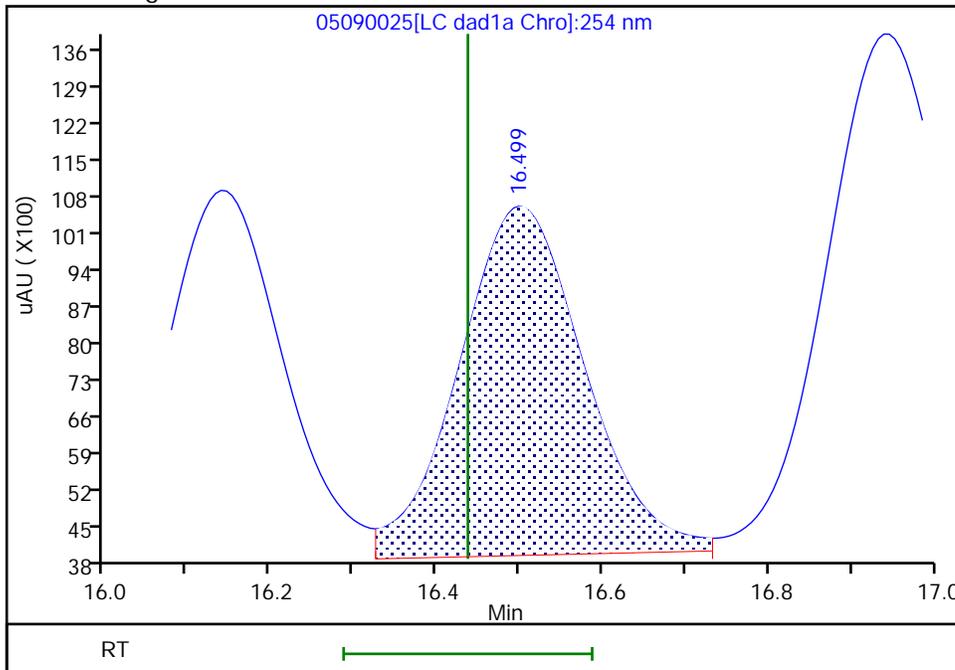
RT: 16.50
Area: 71167
Amount: 0.254721
Amount Units: ug/ml

Processing Integration Results



RT: 16.50
Area: 69764
Amount: 0.249630
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

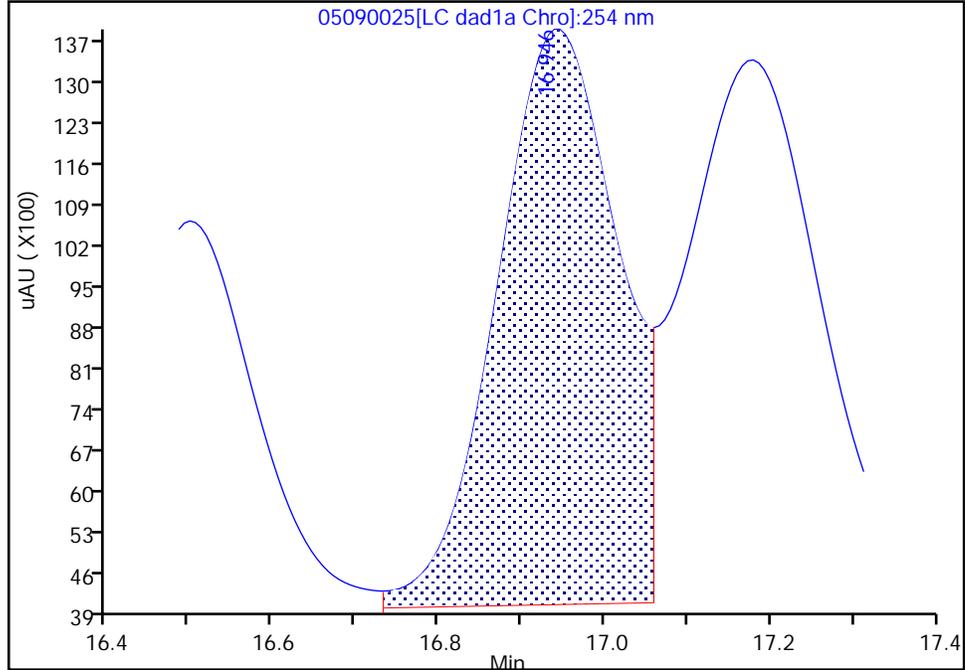
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

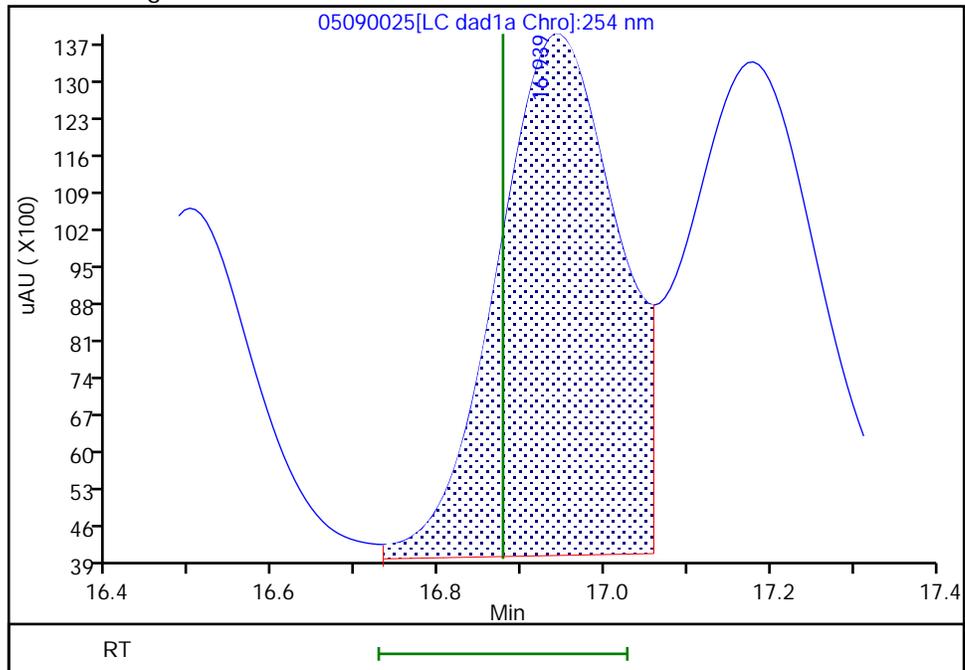
RT: 16.95
Area: 99916
Amount: 0.246364
Amount Units: ug/ml

Processing Integration Results



RT: 16.94
Area: 98995
Amount: 0.244093
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

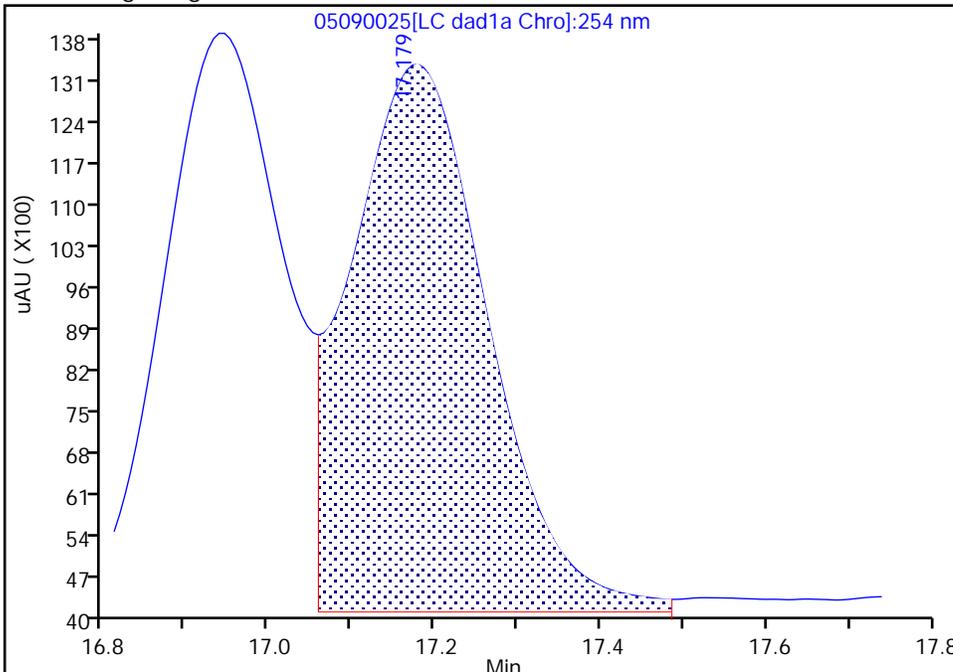
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
 Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

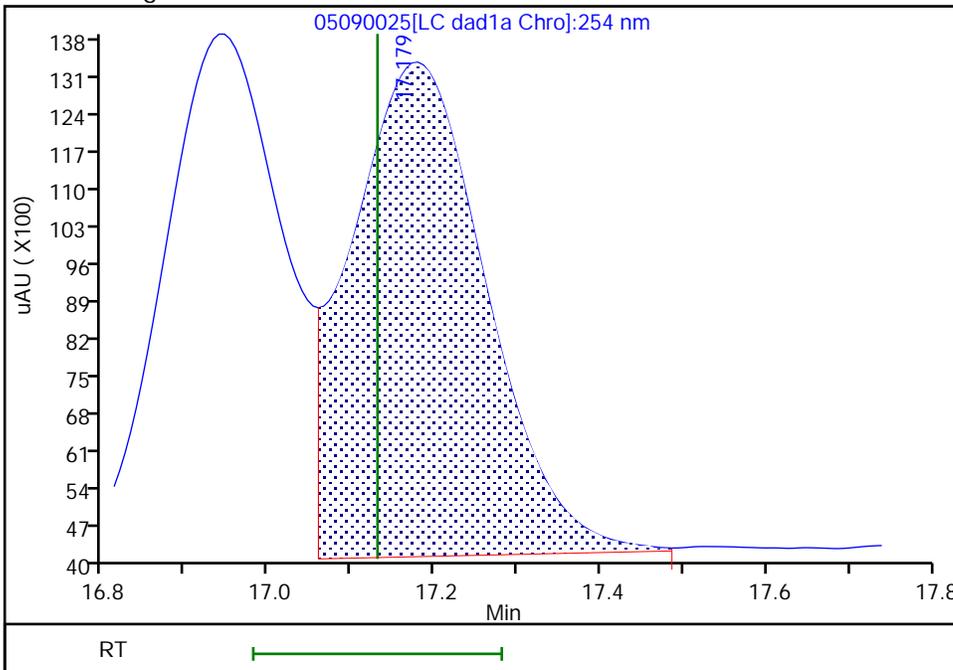
RT: 17.18
 Area: 106136
 Amount: 0.250643
 Amount Units: ug/ml

Processing Integration Results



RT: 17.18
 Area: 103768
 Amount: 0.245051
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

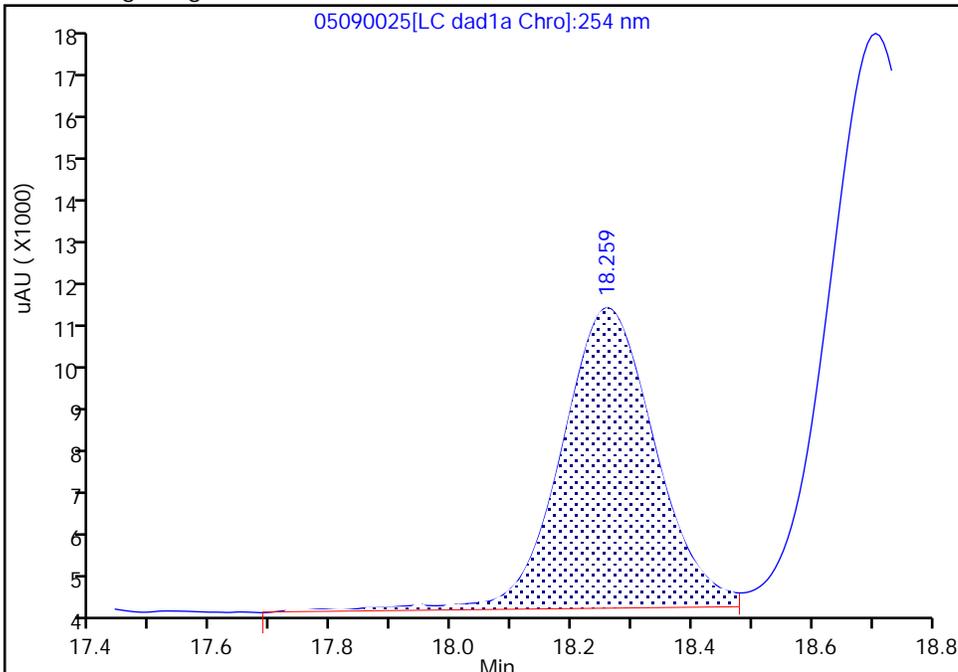
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
 Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

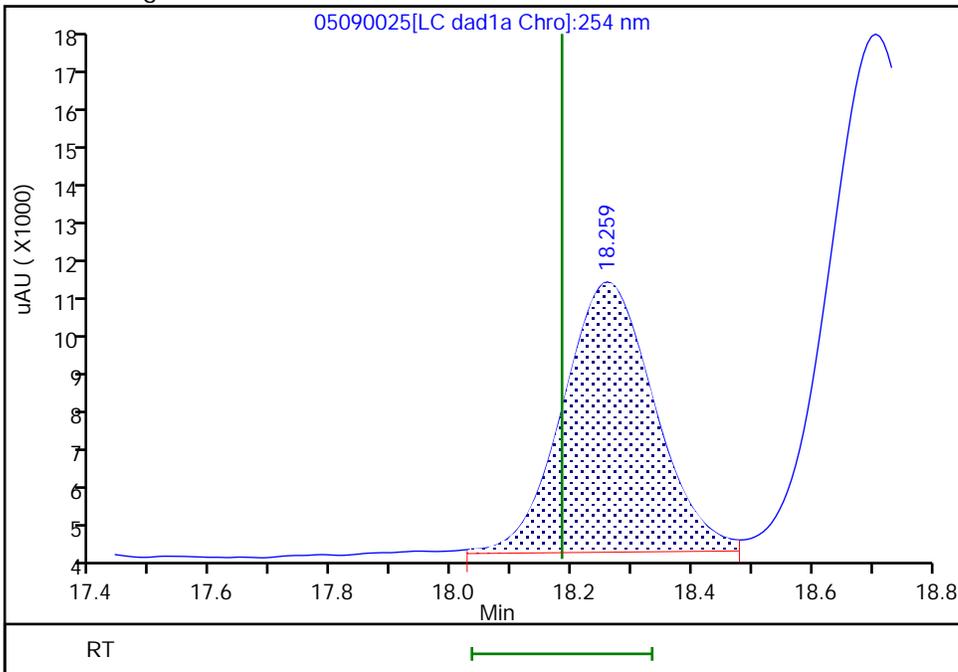
RT: 18.26
 Area: 72491
 Amount: 0.260787
 Amount Units: ug/ml

Processing Integration Results



RT: 18.26
 Area: 70415
 Amount: 0.253319
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

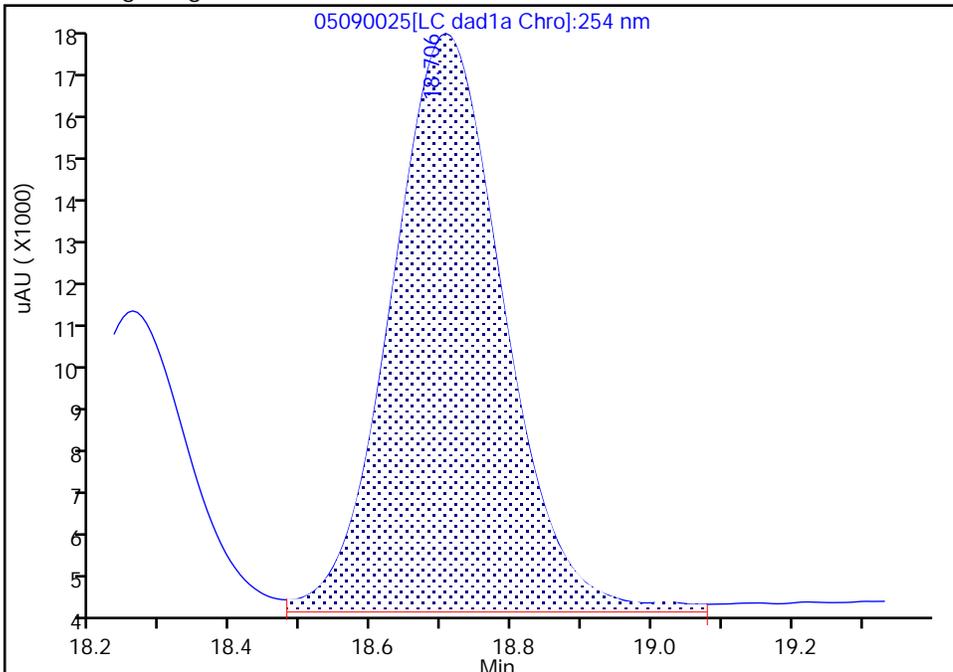
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

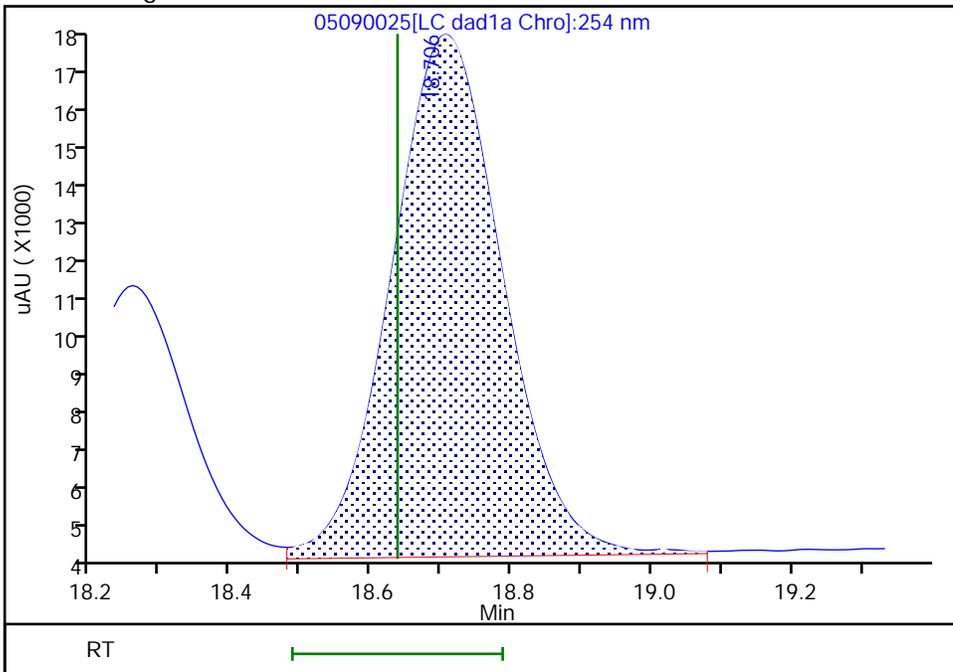
RT: 18.71
Area: 141492
Amount: 0.255141
Amount Units: ug/ml

Processing Integration Results



RT: 18.71
Area: 138828
Amount: 0.250337
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:12 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

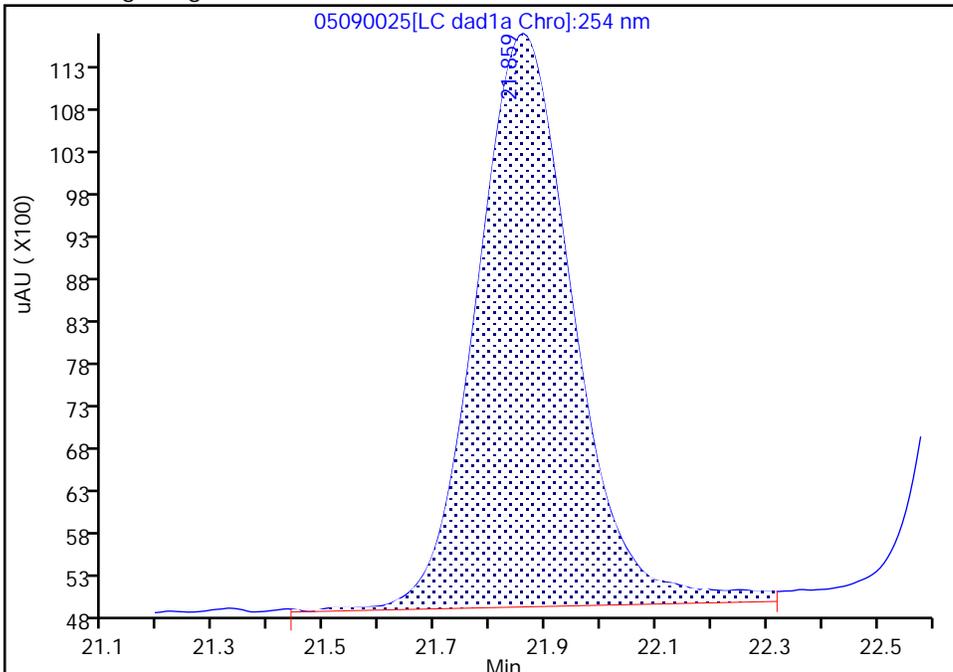
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

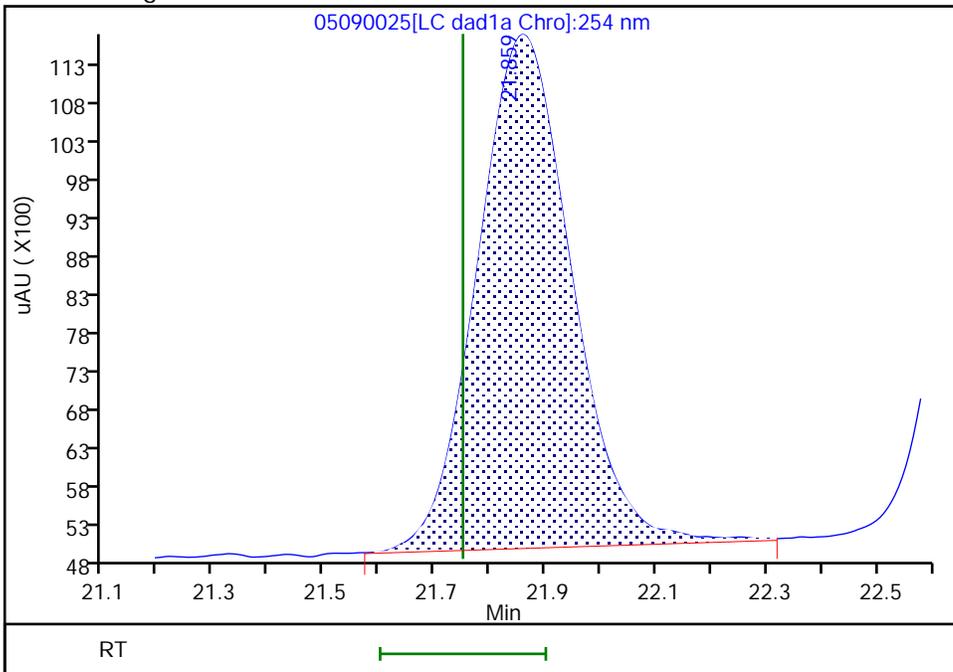
RT: 21.86
Area: 82613
Amount: 0.263373
Amount Units: ug/ml

Processing Integration Results



RT: 21.86
Area: 79947
Amount: 0.254828
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 10-May-2024 15:10:27 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

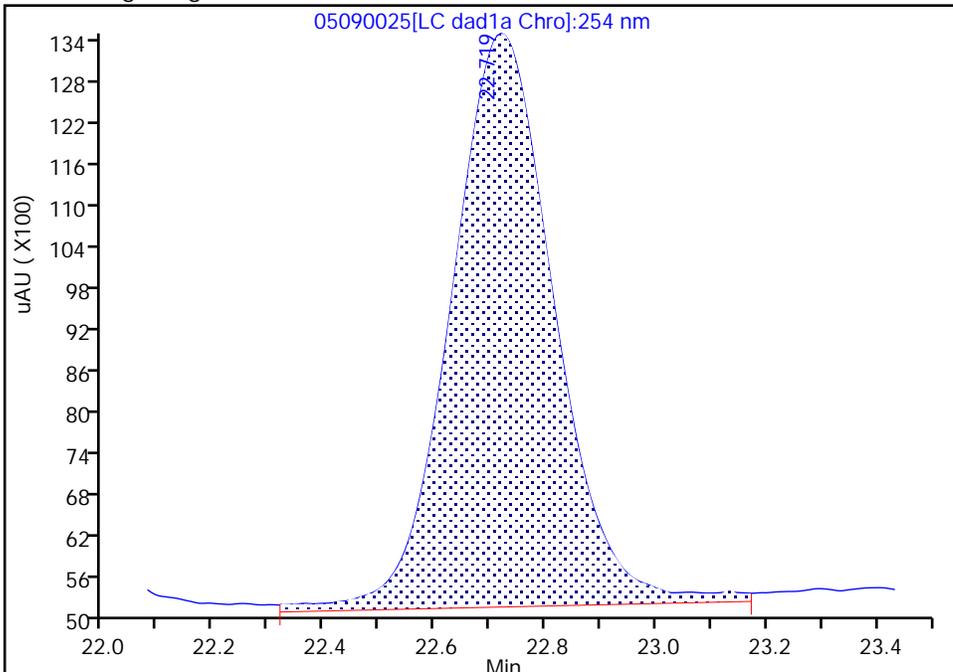
Data File: \\chromfs\denver\chromdata\g2_luna\20240509-133213.b\05090025.d
 Injection Date: 10-May-2024 04:04:15 Instrument ID: CHHPLC_G2_LUNA
 Lims ID: CCV
 Client ID:
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 25
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Method: G2_8330_Luna Limit Group: GCSV - 8330
 Column: Luna-Phenyl hexyl (4.60 mm) Detector: LC DAD1A, 254 nm

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

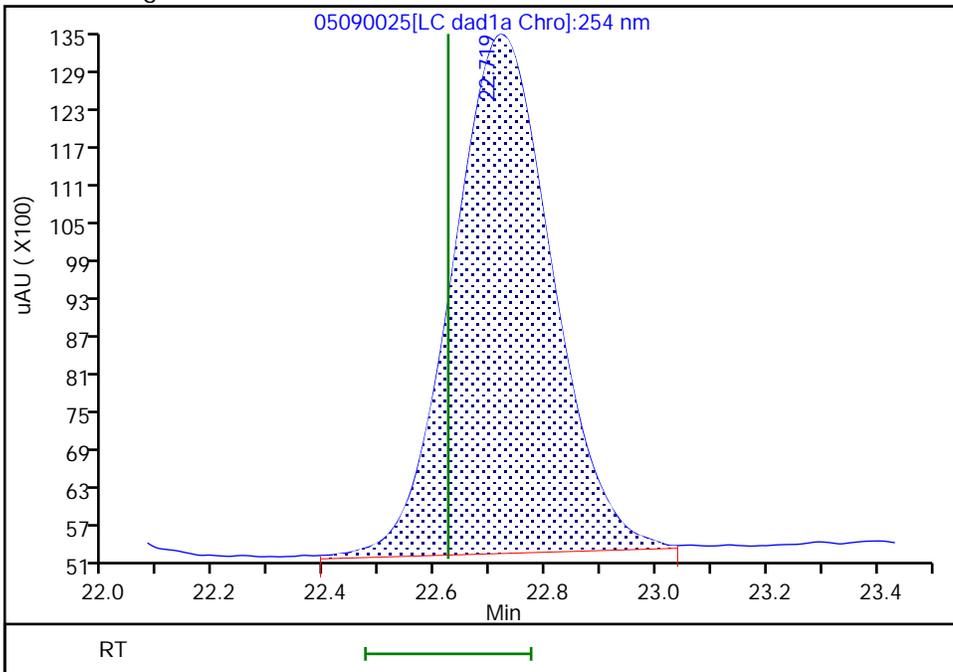
Processing Integration Results

RT: 22.72
 Area: 109485
 Amount: 0.273875
 Amount Units: ug/ml



Manual Integration Results

RT: 22.72
 Area: 104073
 Amount: 0.260337
 Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 15:10:29 -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.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 04170020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	198992	204787		517	502	2.9	20.0
HMX	Ave	95544	88884		465	500	-7.0	20.0
DNX	Ave	147260	152248		518	501	3.4	20.0
MNX	Ave	136698	141932		607	585	3.8	20.0
RDX	Ave	110767	107360		485	500	-3.1	20.0
Picric acid	Ave	79326	85128		537	500	7.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	238232		535	500	6.9	20.0
1,3-Dinitrobenzene	Ave	299436	315400		527	500	5.3	20.0
Nitrobenzene	Ave	196329	207206		528	500	5.5	20.0
3,5-Dinitroaniline	Lin2		227972		517	500	3.4	20.0
Tetryl	Ave	181588	191842		528	500	5.6	20.0
Nitroglycerin	Ave	66464	70364		5290	5000	5.9	20.0
2,4,6-Trinitrotoluene	Ave	215192	218358		507	500	1.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155448		518	500	3.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	208532		522	500	4.4	20.0
2,6-Dinitrotoluene	Ave	146914	147890		503	500	0.7	20.0
2,4-Dinitrotoluene	Ave	291844	298646		512	500	2.3	20.0
2-Nitrotoluene	Ave	129305	129160		499	500	-0.1	20.0
4-Nitrotoluene	Ave	112799	111300		493	500	-1.3	20.0
3-Nitrotoluene	Ave	144063	142054		493	500	-1.4	20.0
PETN	Ave	71937	78341		5450	5000	8.9	20.0
1,2-Dinitrobenzene	Lin2		127242		483	500	-3.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 04170020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
HMX	6.58	6.43	6.73
DNX	6.79	6.69	6.89
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.80	7.67	7.97
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.27	9.13	9.43
Nitrobenzene	9.63	9.49	9.79
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	9.95	9.81	10.11
Nitroglycerin	10.43	10.28	10.58
2,4,6-Trinitrotoluene	10.86	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.95	11.15
2-Amino-4,6-dinitrotoluene	11.30	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.53	11.73
2-Nitrotoluene	12.41	12.27	12.57
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.39	13.25	13.55
PETN	14.48	14.33	14.63
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170020.D
 Lims ID: ICV INT/DMT
 Client ID:
 Sample Type: ICV
 Inject. Date: 18-Apr-2024 00:04:28 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\20240417-132364.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 18-Apr-2024 12:06:14 Calib Date: 17-Apr-2024 23:41:30
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	102803	0.5020	0.5166	M
4 HMX	1	6.581	6.583	-0.002	44442	0.5000	0.4651	M
6 DNx	1	6.788	6.789	-0.001	76276	0.5010	0.5180	M
7 MNx	1	7.201	7.203	-0.002	82959	0.5845	0.6069	
8 RDX	1	7.581	7.583	-0.002	53680	0.5000	0.4846	
9 2,4,6-Trinitrophenol	1	7.795	7.816	-0.021	42564	0.5000	0.5366	
\$ 10 1,2-Dinitrobenzene	1	8.515	8.516	-0.001	63621	0.5000	0.4826	
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	119116	0.5000	0.5345	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	157700	0.5000	0.5267	
13 Nitrobenzene	1	9.628	9.636	-0.008	103603	0.5000	0.5277	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	113986	0.5000	0.5168	
15 Tetryl	1	9.954	9.963	-0.009	95921	0.5000	0.5282	
16 Nitroglycerin	2	10.428	10.429	-0.001	351818	5.00	5.29	
17 2,4,6-Trinitrotoluene	1	10.861	10.869	-0.008	109179	0.5000	0.5074	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	77724	0.5000	0.5183	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	104266	0.5000	0.5218	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	73945	0.5000	0.5033	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	149323	0.5000	0.5117	
22 o-Nitrotoluene	1	12.414	12.423	-0.009	64580	0.5000	0.4994	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	55650	0.5000	0.4934	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	71027	0.5000	0.4930	
25 PETN	2	14.481	14.483	-0.002	391703	5.00	5.45	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8330Surrogate_00154	Amount Added: 50.00	Units: uL
8330 LCS_00134	Amount Added: 50.00	Units: uL
8330_OP_DMT_00026	Amount Added: 50.00	Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d

Injection Date: 18-Apr-2024 00:04:28

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

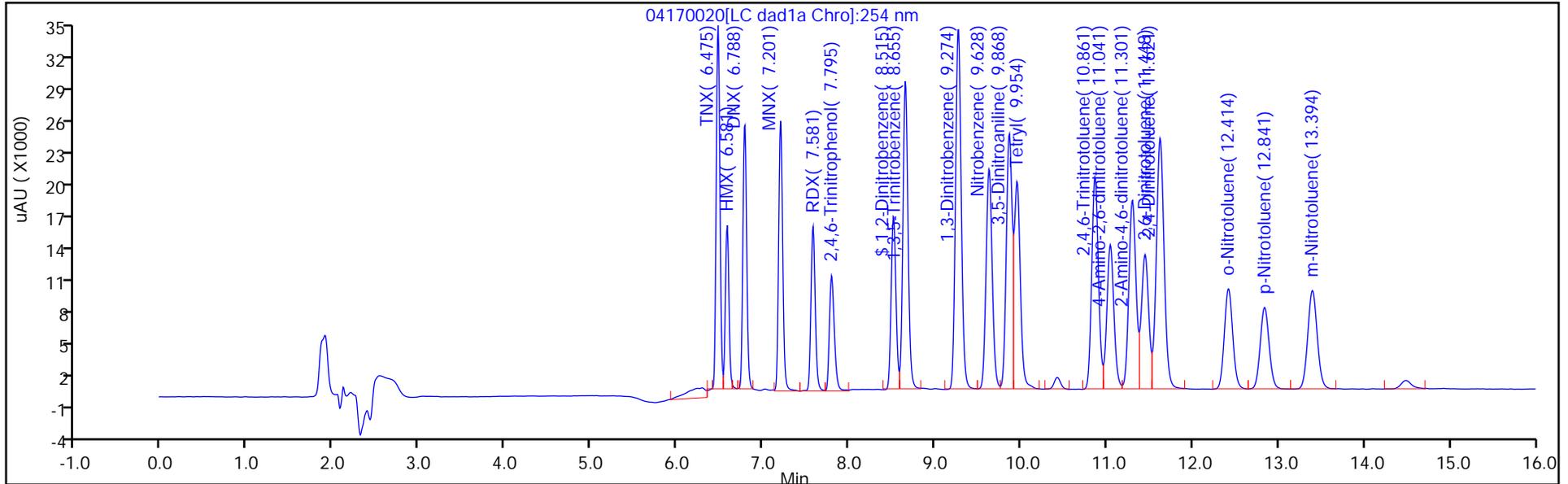
ALS Bottle#: 20

Method: 8330_X3

Limit Group: GCSV - 8330

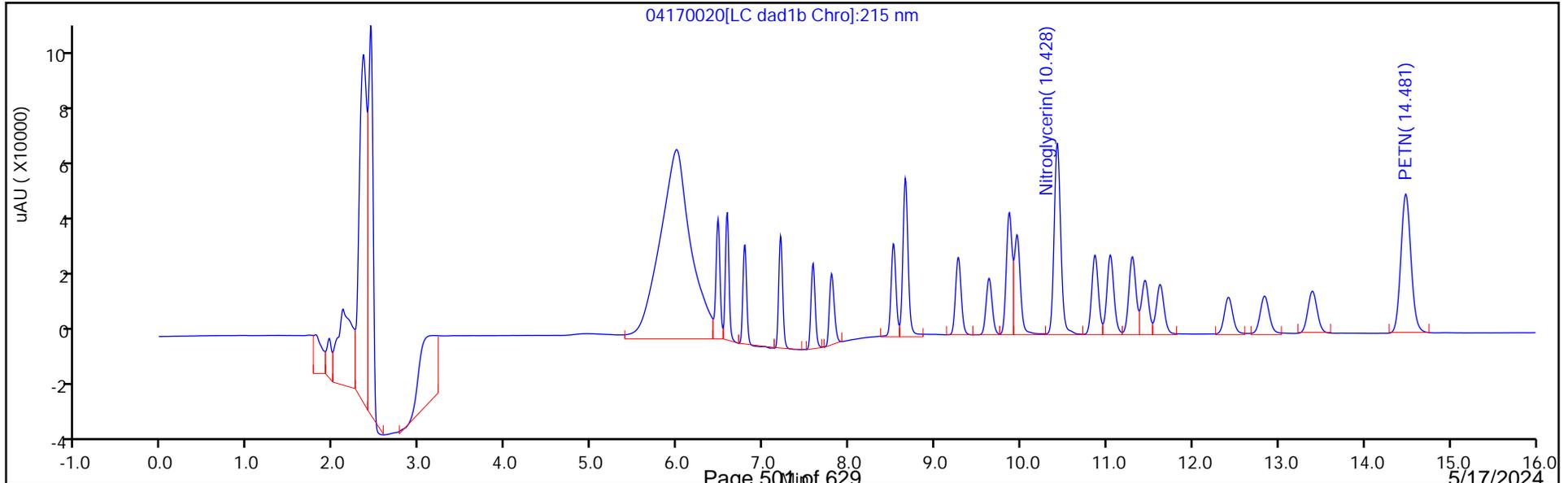
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

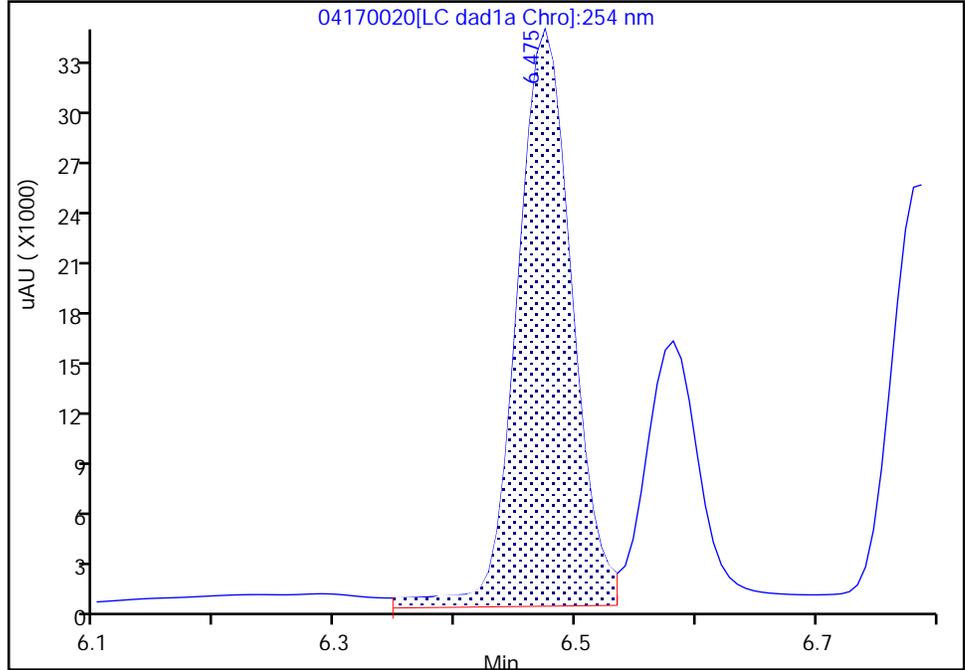
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d
Injection Date: 18-Apr-2024 00:04:28 Instrument ID: CHHPLC_X3
Lims ID: ICV INT/DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

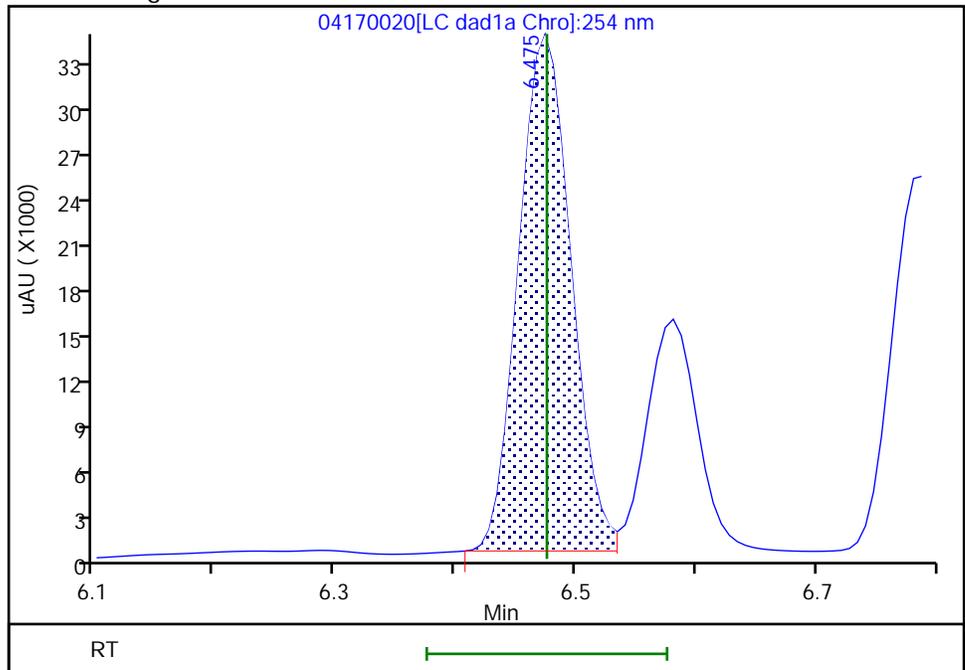
RT: 6.47
Area: 110168
Amount: 0.553630
Amount Units: ug/mL

Processing Integration Results



RT: 6.47
Area: 102803
Amount: 0.516619
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:20 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

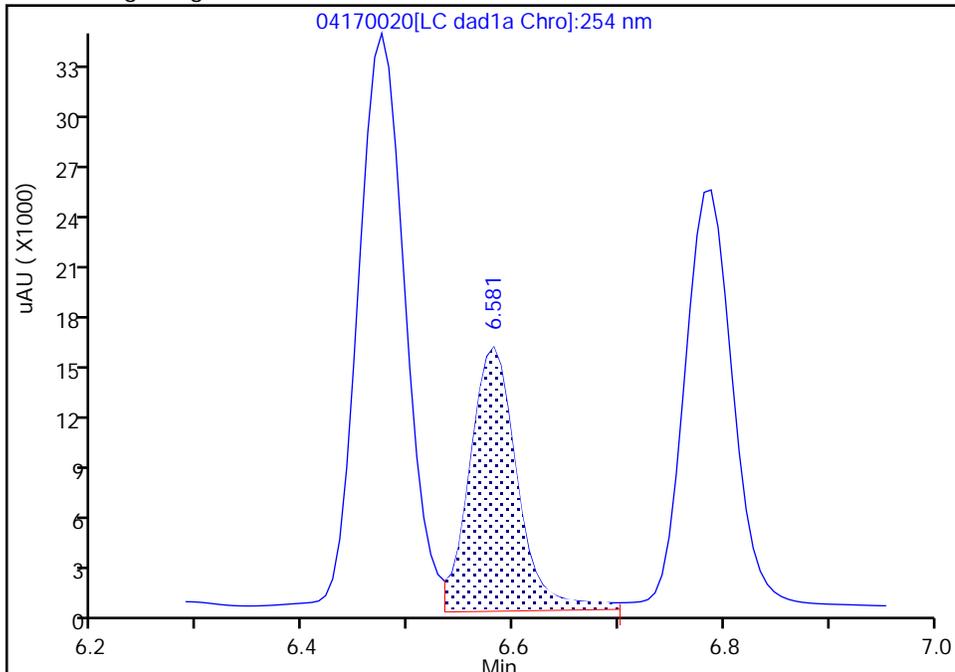
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d
Injection Date: 18-Apr-2024 00:04:28 Instrument ID: CHHPLC_X3
Lims ID: ICV INT/DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

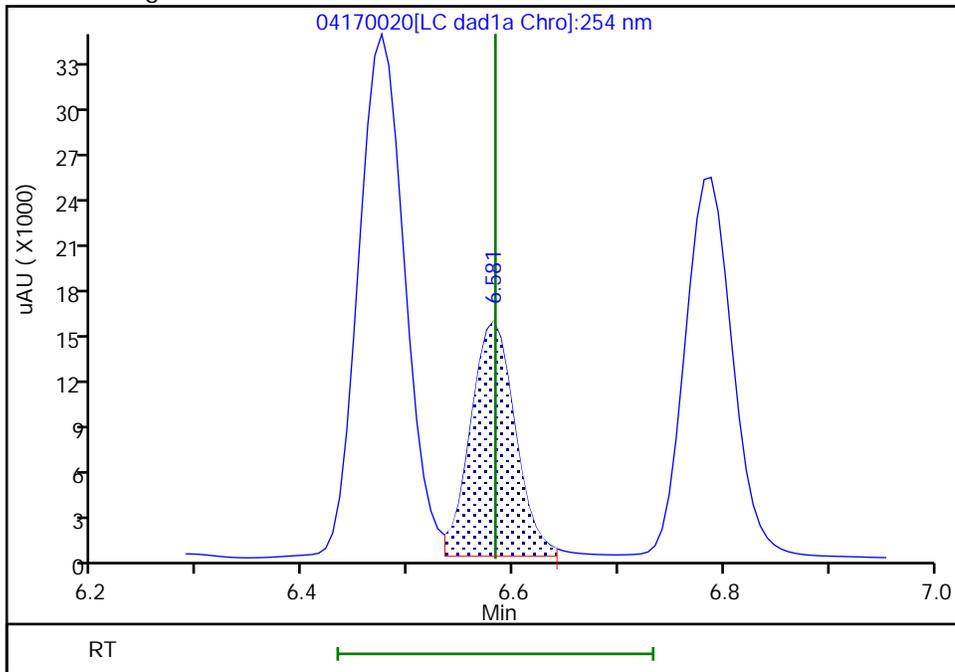
RT: 6.58
Area: 49818
Amount: 0.521416
Amount Units: ug/mL

Processing Integration Results



RT: 6.58
Area: 44442
Amount: 0.465148
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

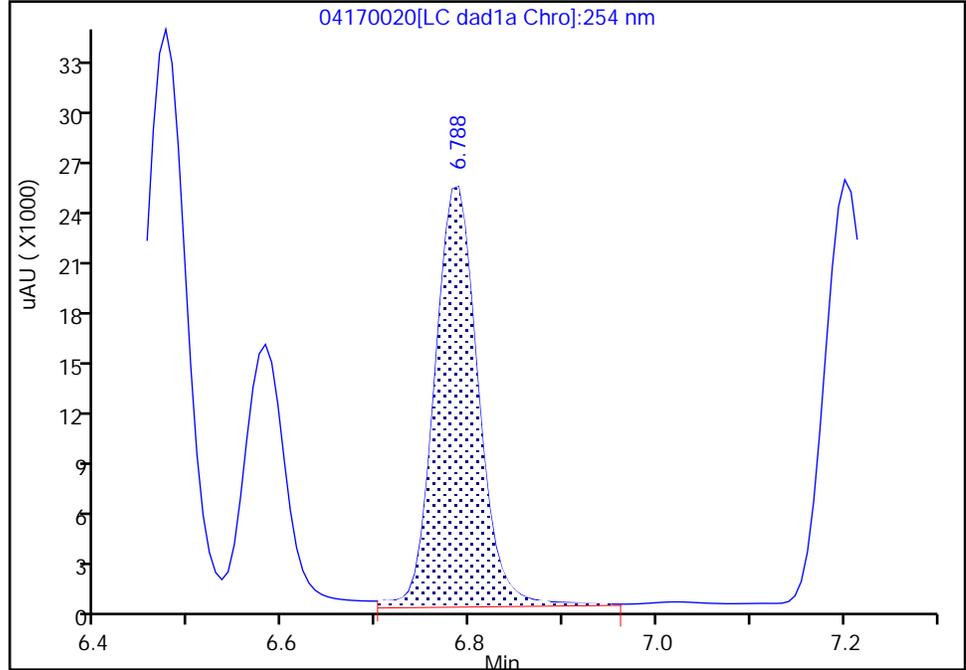
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d
Injection Date: 18-Apr-2024 00:04:28 Instrument ID: CHHPLC_X3
Lims ID: ICV INT/DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

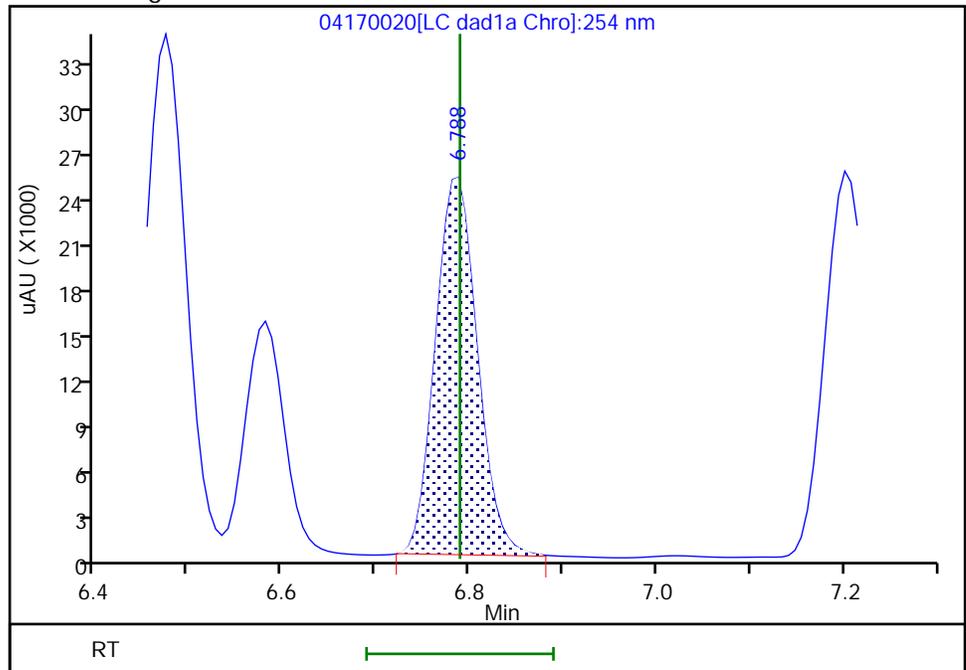
RT: 6.79
Area: 81732
Amount: 0.555020
Amount Units: ug/mL

Processing Integration Results



RT: 6.79
Area: 76276
Amount: 0.517970
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652806/7 Calibration Date: 05/09/2024 17:06
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 05090007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94944		248	250	-0.6	20.0
RDX	Ave	110767	109736		248	250	-0.9	20.0
Picric acid	Ave	79326	84408		266	250	6.4	20.0
1,3,5-Trinitrobenzene	Ave	222853	224216		252	250	0.6	20.0
1,3-Dinitrobenzene	Ave	299436	309036		258	250	3.2	20.0
Nitrobenzene	Ave	196329	201116		256	250	2.4	20.0
3,5-Dinitroaniline	Lin2		237236		269	250	7.8	20.0
Tetryl	Ave	181588	169716		234	250	-6.5	20.0
Nitroglycerin	Ave	66464	69624		2620	2500	4.8	20.0
2,4,6-Trinitrotoluene	Ave	215192	220908		257	250	2.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	153332		256	250	2.3	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	203840		255	250	2.0	20.0
2,6-Dinitrotoluene	Ave	146914	151492		258	250	3.1	20.0
2,4-Dinitrotoluene	Ave	291844	298032		255	250	2.1	20.0
2-Nitrotoluene	Ave	129305	132412		256	250	2.4	20.0
4-Nitrotoluene	Ave	112799	110504		245	250	-2.0	20.0
3-Nitrotoluene	Ave	144063	138816		241	250	-3.6	20.0
PETN	Ave	71937	73707		2560	2500	2.5	20.0
1,2-Dinitrobenzene	Lin2		137340		260	250	4.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652806/7 Calibration Date: 05/09/2024 17:06
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 05090007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.62	7.47	7.77
Picric acid	7.84	7.69	7.99
1,3,5-Trinitrobenzene	8.70	8.55	8.85
1,3-Dinitrobenzene	9.31	9.16	9.46
Nitrobenzene	9.66	9.51	9.81
3,5-Dinitroaniline	9.90	9.75	10.05
Tetryl	9.98	9.83	10.13
Nitroglycerin	10.44	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.78	10.98
4-Amino-2,6-dinitrotoluene	11.06	10.96	11.16
2-Amino-4,6-dinitrotoluene	11.31	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.52	11.72
2-Nitrotoluene	12.40	12.25	12.55
4-Nitrotoluene	12.82	12.67	12.97
3-Nitrotoluene	13.36	13.21	13.51
PETN	14.40	14.25	14.55
1,2-Dinitrobenzene	8.56	8.41	8.71

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090007.D
 Lims ID: CCV INT
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-May-2024 17:06:31 ALS Bottle#: 7 Worklist Smp#: 7
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV INT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub26
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 17:54:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.610	6.610	0.000	23736	0.2500	0.2484	M
8 RDX	1	7.624	7.624	0.000	27434	0.2500	0.2477	
9 2,4,6-Trinitrophenol	1	7.837	7.837	0.000	21102	0.2500	0.2660	
\$ 10 1,2-Dinitrobenzene	1	8.557	8.557	0.000	34335	0.2500	0.2601	
11 1,3,5-Trinitrobenzene	1	8.697	8.697	0.000	56054	0.2500	0.2515	
12 1,3-Dinitrobenzene	1	9.310	9.310	0.000	77259	0.2500	0.2580	
13 Nitrobenzene	1	9.663	9.663	0.000	50279	0.2500	0.2561	
14 3,5-Dinitroaniline	1	9.903	9.903	0.000	59309	0.2500	0.2694	
15 Tetryl	1	9.977	9.977	0.000	42429	0.2500	0.2337	
16 Nitroglycerin	2	10.443	10.443	0.000	174061	2.50	2.62	
17 2,4,6-Trinitrotoluene	1	10.877	10.877	0.000	55227	0.2500	0.2566	
18 4-Amino-2,6-dinitrotoluene	1	11.057	11.057	0.000	38333	0.2500	0.2556	
19 2-Amino-4,6-dinitrotoluene	1	11.310	11.310	0.000	50960	0.2500	0.2550	
20 2,6-Dinitrotoluene	1	11.450	11.450	0.000	37873	0.2500	0.2578	
21 2,4-Dinitrotoluene	1	11.623	11.623	0.000	74508	0.2500	0.2553	
22 o-Nitrotoluene	1	12.397	12.397	0.000	33103	0.2500	0.2560	
23 p-Nitrotoluene	1	12.817	12.817	0.000	27626	0.2500	0.2449	
24 m-Nitrotoluene	1	13.363	13.363	0.000	34704	0.2500	0.2409	
25 PETN	2	14.403	14.403	0.000	184268	2.50	2.56	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

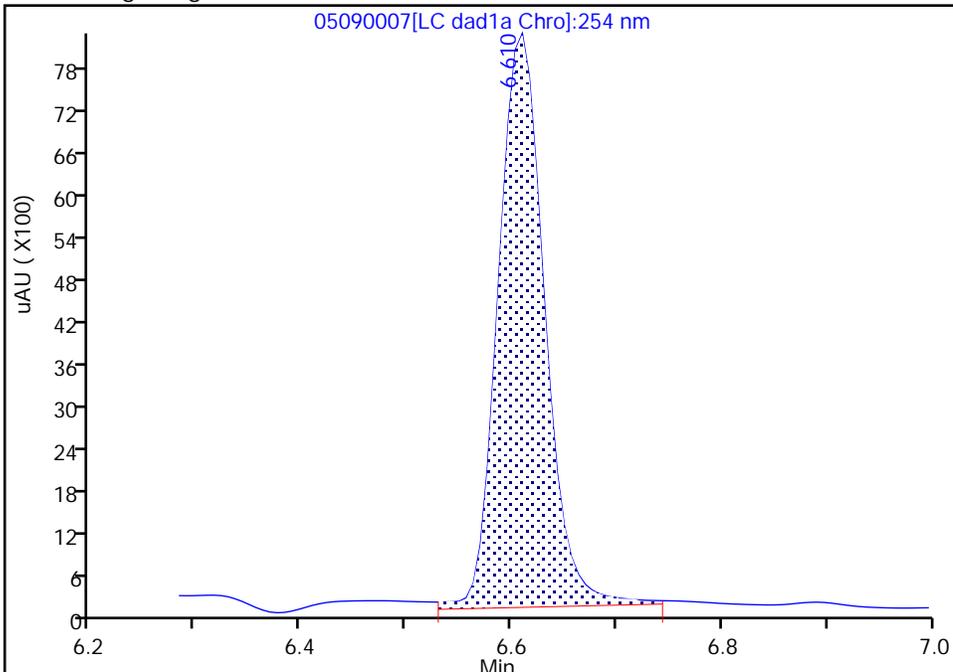
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090007.d		
Injection Date:	09-May-2024 17:06:31	Instrument ID:	CHHPLC_X3
Lims ID:	CCV INT		
Client ID:			
Operator ID:	JZ	ALS Bottle#:	7
		Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector:	LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

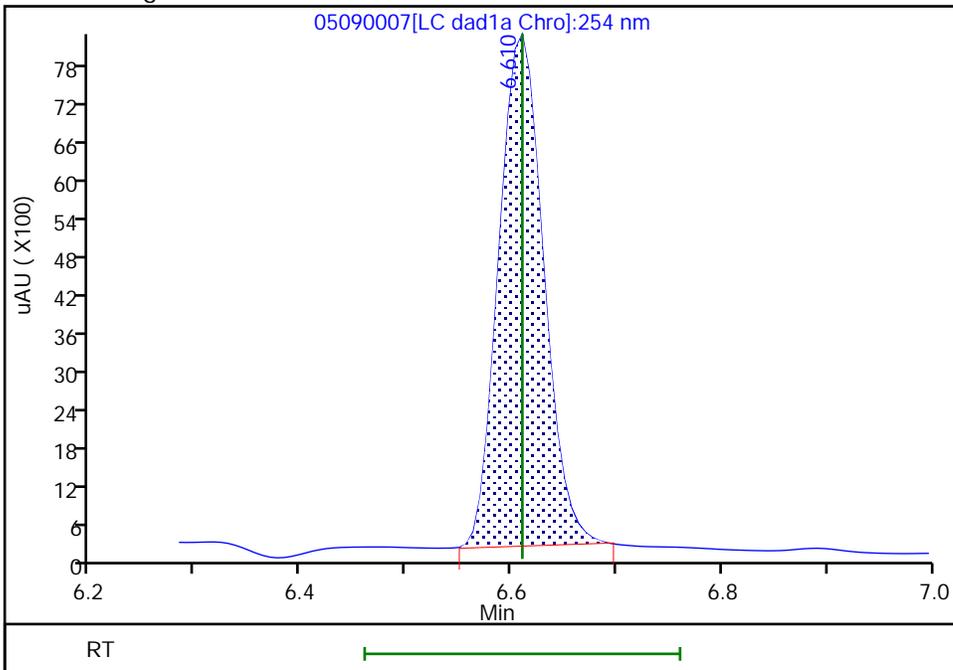
RT: 6.61
 Area: 25127
 Amount: 0.262990
 Amount Units: ug/mL

Processing Integration Results



RT: 6.61
 Area: 23736
 Amount: 0.248431
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 17:54:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652806/21 Calibration Date: 05/09/2024 21:19
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 05090021.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95316		249	250	-0.2	20.0
RDX	Ave	110767	110676		250	250	-0.0	20.0
Picric acid	Ave	79326	84292		266	250	6.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	224288		252	250	0.6	20.0
1,3-Dinitrobenzene	Ave	299436	308964		258	250	3.2	20.0
Nitrobenzene	Ave	196329	199112		254	250	1.4	20.0
3,5-Dinitroaniline	Lin2		226156		257	250	2.8	20.0
Tetryl	Ave	181588	181160		249	250	-0.2	20.0
Nitroglycerin	Ave	66464	69516		2610	2500	4.6	20.0
2,4,6-Trinitrotoluene	Ave	215192	220852		257	250	2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152628		254	250	1.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	203908		255	250	2.1	20.0
2,6-Dinitrotoluene	Ave	146914	151920		259	250	3.4	20.0
2,4-Dinitrotoluene	Ave	291844	300212		257	250	2.9	20.0
2-Nitrotoluene	Ave	129305	132684		257	250	2.6	20.0
4-Nitrotoluene	Ave	112799	113240		251	250	0.4	20.0
3-Nitrotoluene	Ave	144063	142340		247	250	-1.2	20.0
PETN	Ave	71937	73846		2570	2500	2.7	20.0
1,2-Dinitrobenzene	Lin2		137376		260	250	4.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Lab Sample ID: CCV 280-652806/21 Calibration Date: 05/09/2024 21:19
 Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41
 Lab File ID: 05090021.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.63	7.47	7.77
Picric acid	7.84	7.69	7.99
1,3,5-Trinitrobenzene	8.70	8.55	8.85
1,3-Dinitrobenzene	9.31	9.16	9.46
Nitrobenzene	9.66	9.51	9.81
3,5-Dinitroaniline	9.90	9.75	10.05
Tetryl	9.98	9.83	10.13
Nitroglycerin	10.44	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.78	10.98
4-Amino-2,6-dinitrotoluene	11.05	10.96	11.16
2-Amino-4,6-dinitrotoluene	11.31	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.52	11.72
2-Nitrotoluene	12.40	12.25	12.55
4-Nitrotoluene	12.82	12.67	12.97
3-Nitrotoluene	13.36	13.21	13.51
PETN	14.42	14.25	14.55
1,2-Dinitrobenzene	8.56	8.41	8.71

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090021.D
 Lims ID: CCV INT
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-May-2024 21:19:00 ALS Bottle#: 7 Worklist Smp#: 21
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: CCV INT
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Sublist: chrom-8330_X3*sub26
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:18 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 10-May-2024 12:18:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.610	6.610	0.000	23829	0.2500	0.2494	M
8 RDX	1	7.630	7.624	0.006	27669	0.2500	0.2498	
9 2,4,6-Trinitrophenol	1	7.837	7.837	0.000	21073	0.2500	0.2657	
\$ 10 1,2-Dinitrobenzene	1	8.557	8.557	0.000	34344	0.2500	0.2602	
11 1,3,5-Trinitrobenzene	1	8.697	8.697	0.000	56072	0.2500	0.2516	
12 1,3-Dinitrobenzene	1	9.310	9.310	0.000	77241	0.2500	0.2580	
13 Nitrobenzene	1	9.664	9.663	0.001	49778	0.2500	0.2535	
14 3,5-Dinitroaniline	1	9.897	9.903	-0.006	56539	0.2500	0.2569	
15 Tetryl	1	9.977	9.977	0.000	45290	0.2500	0.2494	
16 Nitroglycerin	2	10.444	10.443	0.001	173790	2.50	2.61	
17 2,4,6-Trinitrotoluene	1	10.877	10.877	0.000	55213	0.2500	0.2566	
18 4-Amino-2,6-dinitrotoluene	1	11.050	11.057	-0.007	38157	0.2500	0.2545	
19 2-Amino-4,6-dinitrotoluene	1	11.310	11.310	0.000	50977	0.2500	0.2551	
20 2,6-Dinitrotoluene	1	11.450	11.450	0.000	37980	0.2500	0.2585	
21 2,4-Dinitrotoluene	1	11.624	11.623	0.001	75053	0.2500	0.2572	
22 o-Nitrotoluene	1	12.404	12.397	0.007	33171	0.2500	0.2565	
23 p-Nitrotoluene	1	12.817	12.817	0.000	28310	0.2500	0.2510	
24 m-Nitrotoluene	1	13.364	13.363	0.001	35585	0.2500	0.2470	
25 PETN	2	14.417	14.403	0.014	184616	2.50	2.57	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090021.d

Injection Date: 09-May-2024 21:19:00 Instrument ID: CHHPLC_X3

Lims ID: CCV INT

Operator ID: JZ

Client ID:

Worklist Smp#: 21

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

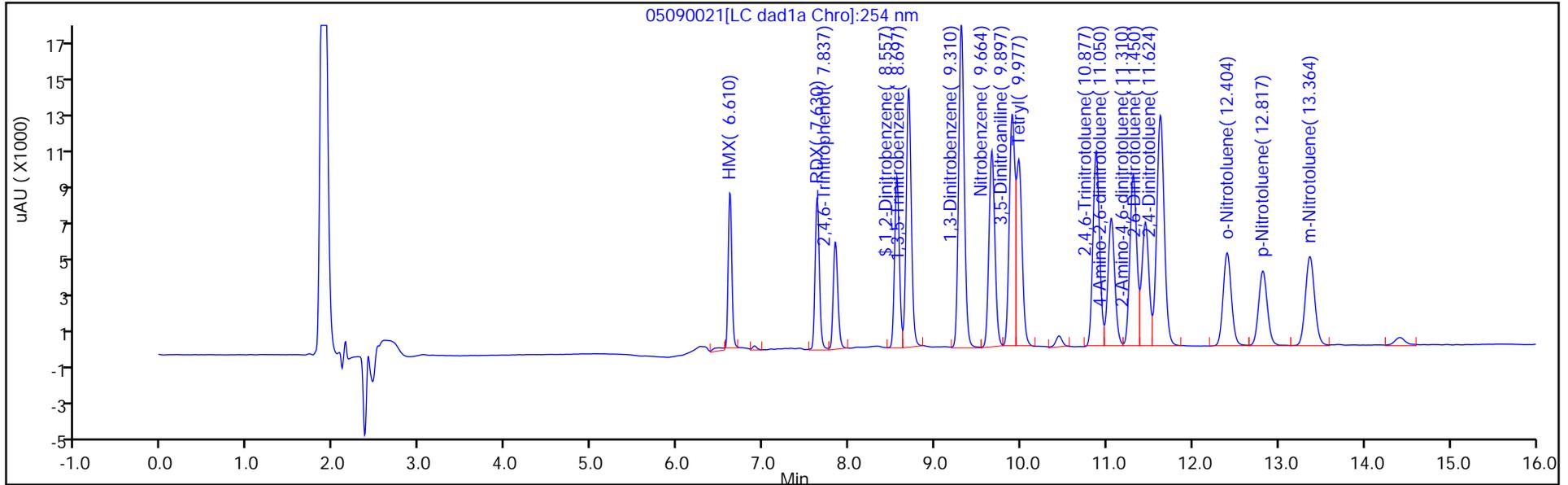
ALS Bottle#: 7

Method: 8330_X3

Limit Group: GCSV - 8330

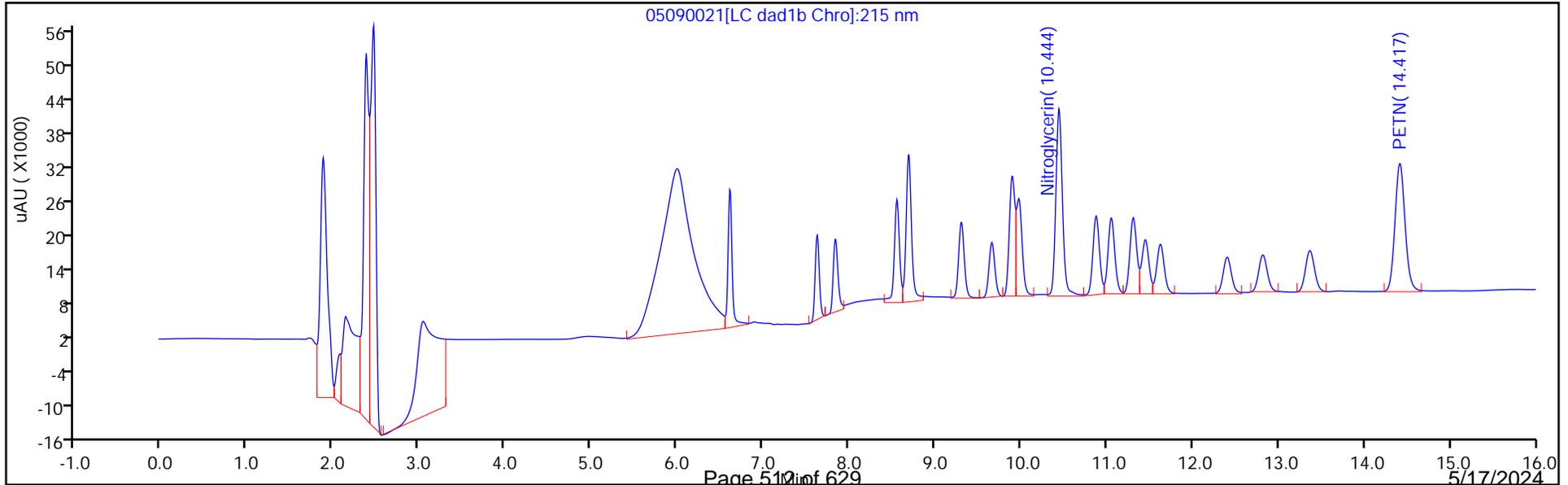
Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver

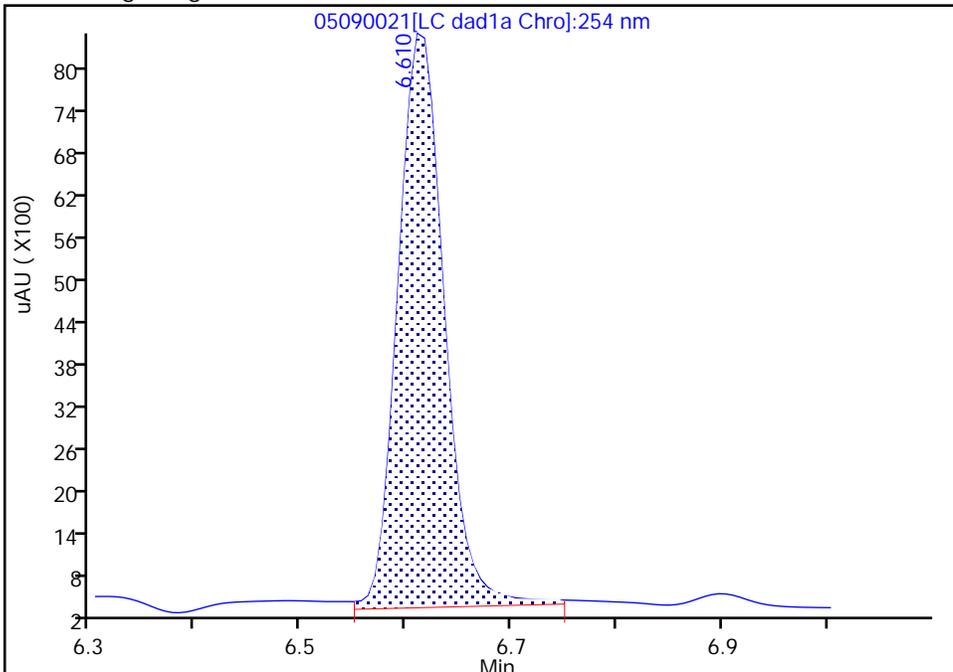
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090021.d
Injection Date: 09-May-2024 21:19:00 Instrument ID: CHHPLC_X3
Lims ID: CCV INT
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

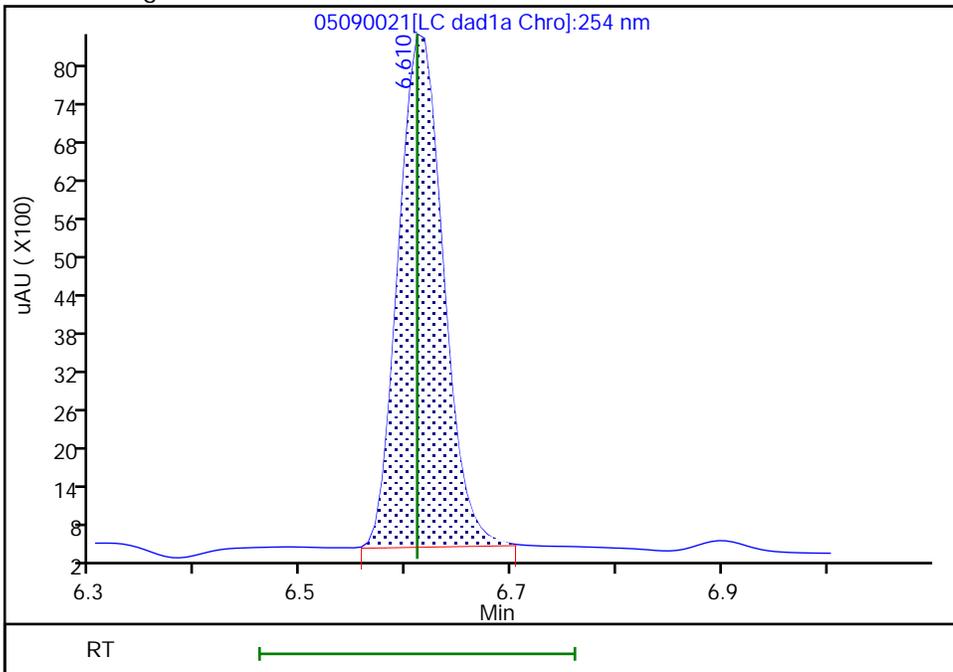
RT: 6.61
Area: 25093
Amount: 0.262634
Amount Units: ug/mL

Processing Integration Results



RT: 6.61
Area: 23829
Amount: 0.249404
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 10-May-2024 12:18:33 -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.: 280-190903-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-652546/1-A
 Matrix: Water Lab File ID: 05090011.D
 Analysis Method: 8330B Date Collected: _____
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 500(mL) Date Analyzed: 05/09/2024 17:29
 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.: 652806 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U M	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090011.D
 Lims ID: MB 280-652546/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 09-May-2024 17:29:29 ALS Bottle#: 11 Worklist Smp#: 11
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: MB 280-652546/1-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 17:55:07

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		6.460				ND	7
3 TNX	1		6.506				ND	
4 HMX	1	6.608	6.610	-0.002	745		0.007797	M
5 2,4-diamino-6-nitrotoluene	1		6.633				ND	
6 DNX	1		6.892				ND	
7 MNX	1		7.258				ND	7
8 RDX	1		7.624				ND	
9 2,4,6-Trinitrophenol	1		7.837				ND	
\$ 10 1,2-Dinitrobenzene	1	8.554	8.557	-0.003	21839	0.2000	0.1652	M
11 1,3,5-Trinitrobenzene	1		8.697				ND	MU
12 1,3-Dinitrobenzene	1		9.310				ND	
13 Nitrobenzene	1		9.663				ND	
14 3,5-Dinitroaniline	1		9.903				ND	
15 Tetryl	1		9.977				ND	
16 Nitroglycerin	2		10.443				ND	
17 2,4,6-Trinitrotoluene	1		10.877				ND	
18 4-Amino-2,6-dinitrotoluene	1		11.057				ND	
19 2-Amino-4,6-dinitrotoluene	1		11.310				ND	
20 2,6-Dinitrotoluene	1		11.450				ND	
21 2,4-Dinitrotoluene	1		11.623				ND	
22 o-Nitrotoluene	1		12.397				ND	7
23 p-Nitrotoluene	1		12.817				ND	
24 m-Nitrotoluene	1		13.363				ND	
25 PETN	2		14.403				ND	
26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090011.d

Injection Date: 09-May-2024 17:29:29 Instrument ID: CHHPLC_X3

Lims ID: MB 280-652546/1-A

Operator ID: JZ

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

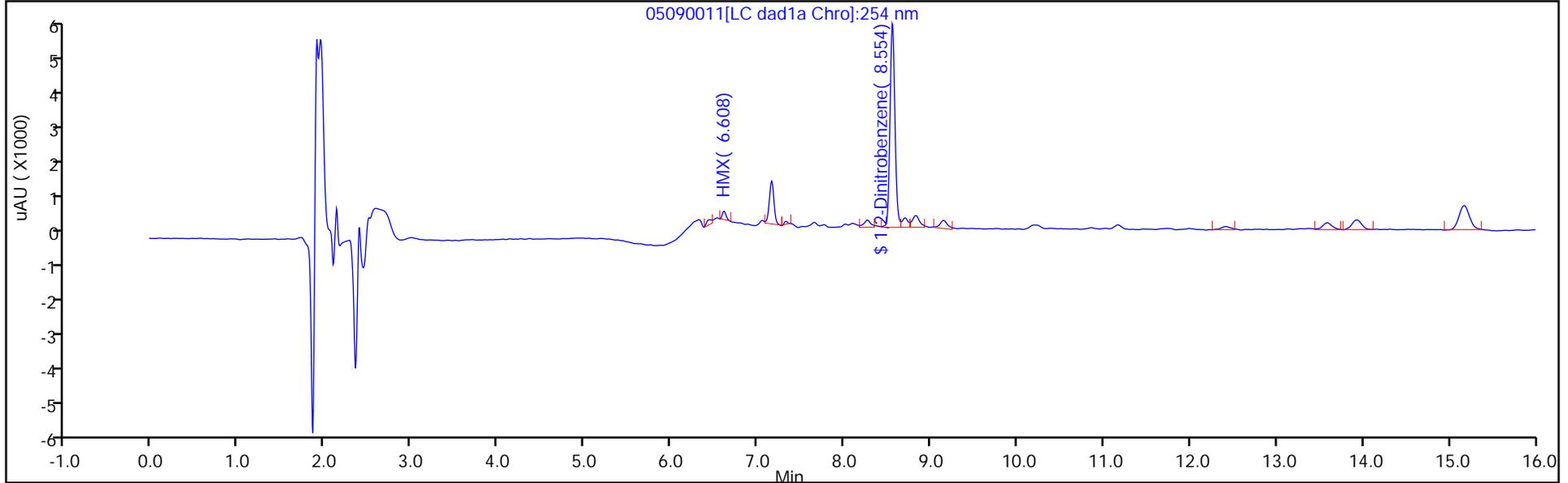
ALS Bottle#: 11

Method: 8330_X3

Limit Group: GCSV - 8330

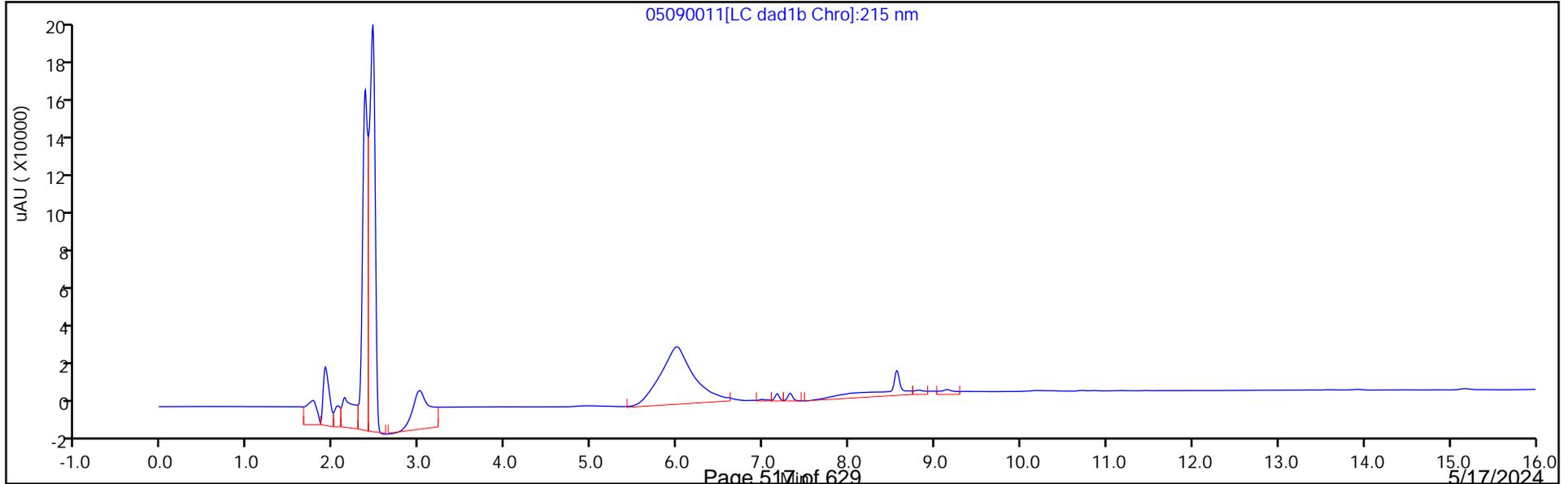
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090011.D
 Lims ID: MB 280-652546/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 09-May-2024 17:29:29 ALS Bottle#: 11 Worklist Smp#: 11
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: MB 280-652546/1-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 17:55:07

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1652	82.60

Eurofins Denver

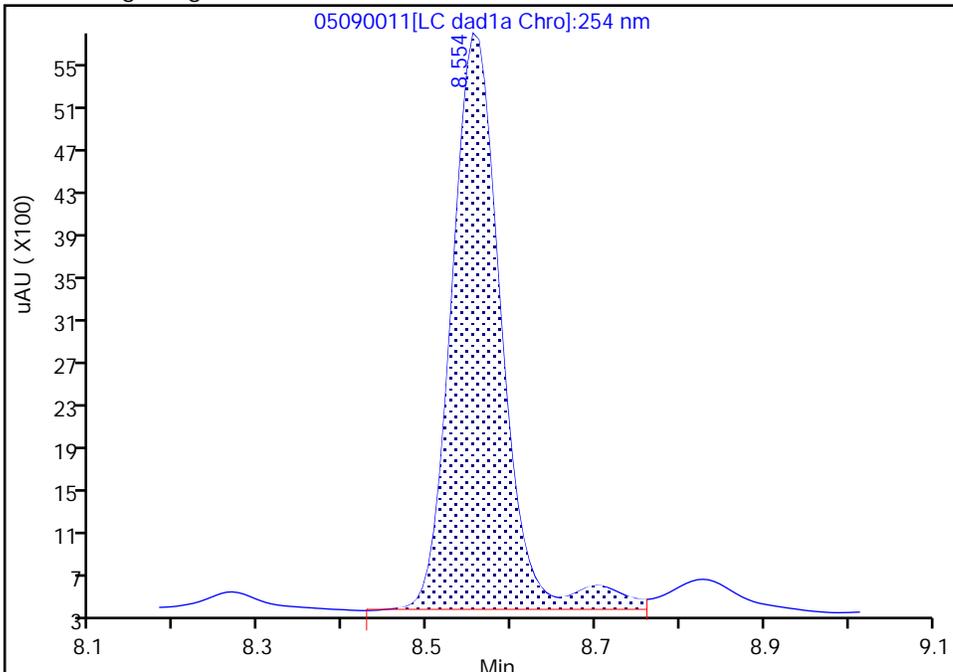
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090011.d
Injection Date: 09-May-2024 17:29:29 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652546/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

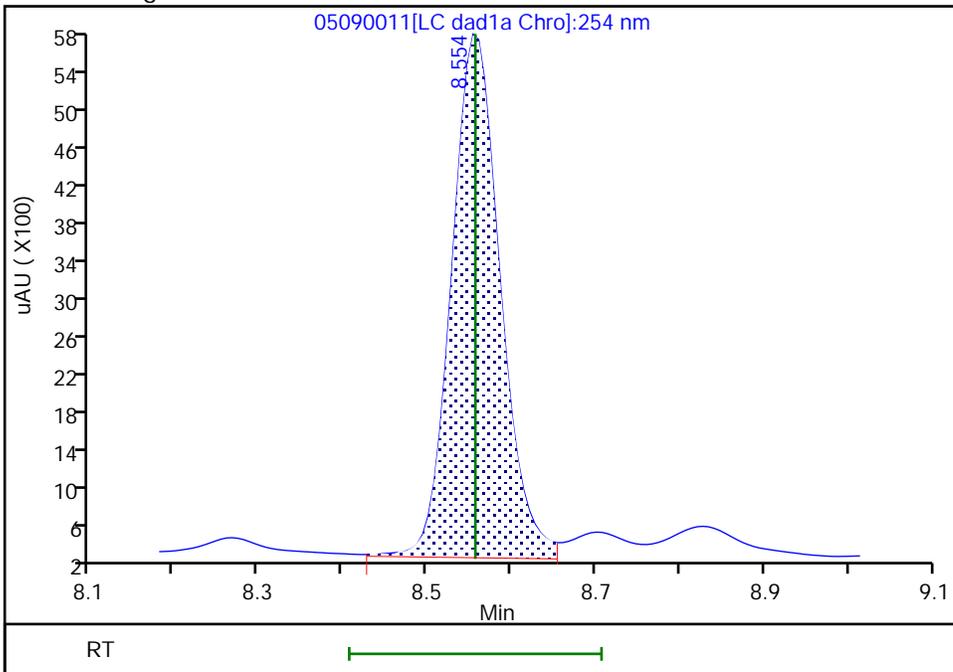
RT: 8.55
Area: 22425
Amount: 0.169650
Amount Units: ug/mL

Processing Integration Results



RT: 8.55
Area: 21839
Amount: 0.165199
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 17:55:02 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

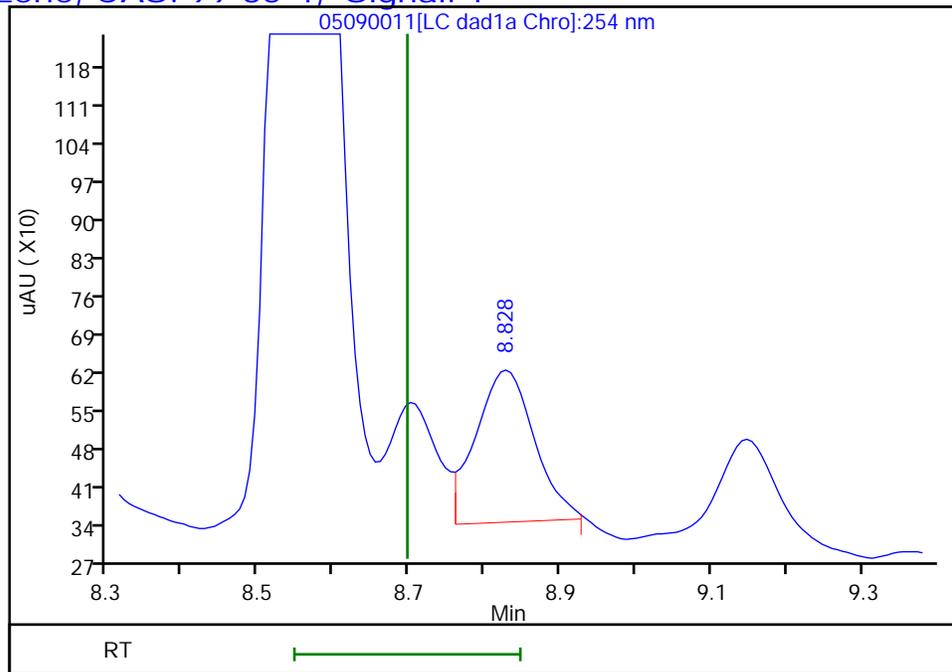
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090011.d
Injection Date: 09-May-2024 17:29:29 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652546/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 8.83
Response: 1496
Amount: 0.006713



Reviewer: LV5D, 09-May-2024 17:55:07
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

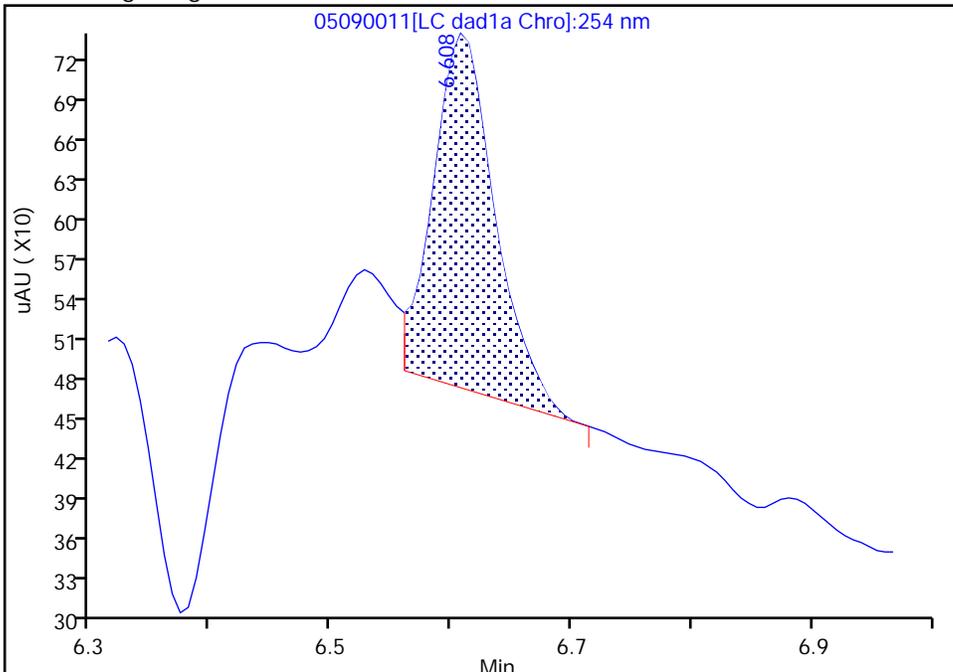
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090011.d
Injection Date: 09-May-2024 17:29:29 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652546/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

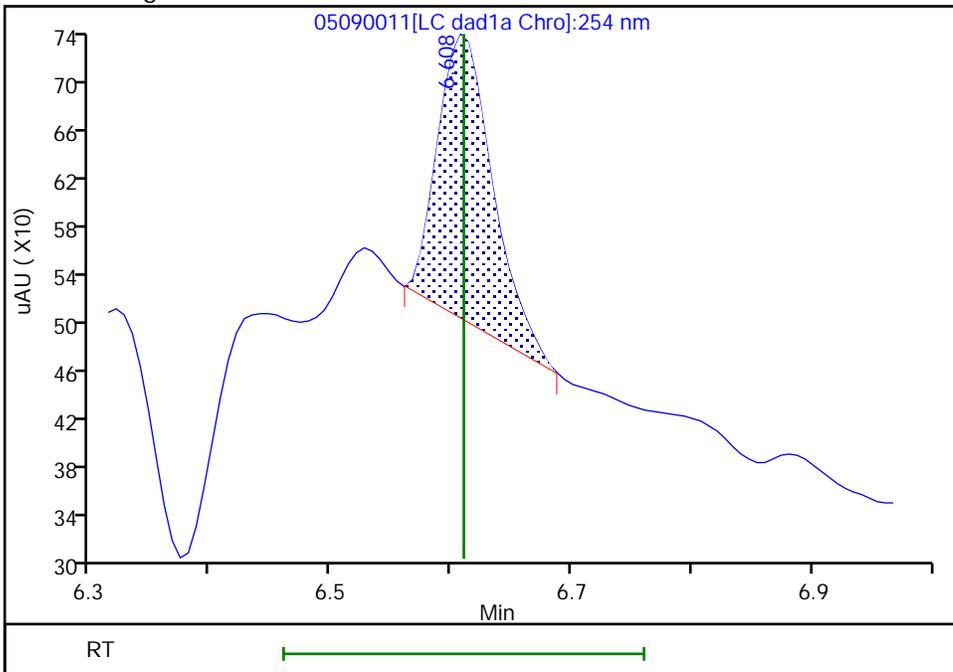
RT: 6.61
Area: 932
Amount: 0.009755
Amount Units: ug/mL

Processing Integration Results



RT: 6.61
Area: 745
Amount: 0.007797
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 17:54:52 -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.: 280-190903-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-652546/2-A
 Matrix: Water Lab File ID: 05090012.D
 Analysis Method: 8330B Date Collected: _____
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 500(mL) Date Analyzed: 05/09/2024 17:52
 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.: 652806 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.95	M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.81		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	1.68		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.70		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.72		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.39		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.30	Q M	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.75		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.33	Q	0.41	0.40	0.10
2691-41-0	HMX	1.75		0.21	0.20	0.088
98-95-3	Nitrobenzene	1.62		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.7		2.1	2.0	0.92
78-11-5	PETN	20.0		1.1	1.0	0.45
121-82-4	RDX	1.78		0.21	0.20	0.052
479-45-8	Tetryl	1.71		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090012.D
 Lims ID: LCS 280-652546/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 09-May-2024 17:52:23 ALS Bottle#: 12 Worklist Smp#: 12
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: LCS 280-652546/2-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 18:21:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.613	6.610	0.003	16728	0.2000	0.1751	
8 RDX	1	7.626	7.624	0.002	19677	0.2000	0.1776	
9 2,4,6-Trinitrophenol	1	7.839	7.837	0.002	15917	0.2000	0.2007	
\$ 10 1,2-Dinitrobenzene	1	8.559	8.557	0.002	25028	0.2000	0.1894	M
11 1,3,5-Trinitrobenzene	1	8.693	8.697	-0.004	43490	0.2000	0.1952	M
12 1,3-Dinitrobenzene	1	9.306	9.310	-0.004	54242	0.2000	0.1811	
13 Nitrobenzene	1	9.659	9.663	-0.004	31759	0.2000	0.1618	
14 3,5-Dinitroaniline	1	9.899	9.903	-0.004	38253	0.2000	0.1742	
15 Tetryl	1	9.979	9.977	0.002	30966	0.2000	0.1705	
16 Nitroglycerin	2	10.439	10.443	-0.004	131092	2.00	1.97	
17 2,4,6-Trinitrotoluene	1	10.873	10.877	-0.004	38717	0.2000	0.1799	
18 4-Amino-2,6-dinitrotoluene	1	11.053	11.057	-0.004	26258	0.2000	0.1751	
19 2-Amino-4,6-dinitrotoluene	1	11.313	11.310	0.003	34305	0.2000	0.1717	
20 2,6-Dinitrotoluene	1	11.453	11.450	0.003	25038	0.2000	0.1704	
21 2,4-Dinitrotoluene	1	11.626	11.623	0.003	48897	0.2000	0.1675	
22 o-Nitrotoluene	1	12.406	12.397	0.009	18006	0.2000	0.1393	
23 p-Nitrotoluene	1	12.819	12.817	0.002	14971	0.2000	0.1327	
24 m-Nitrotoluene	1	13.366	13.363	0.003	18731	0.2000	0.1300	M
25 PETN	2	14.413	14.403	0.010	144010	2.00	2.00	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Report Date: 10-May-2024 12:45:11

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090012.d

Injection Date: 09-May-2024 17:52:23

Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: LCS 280-652546/2-A

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

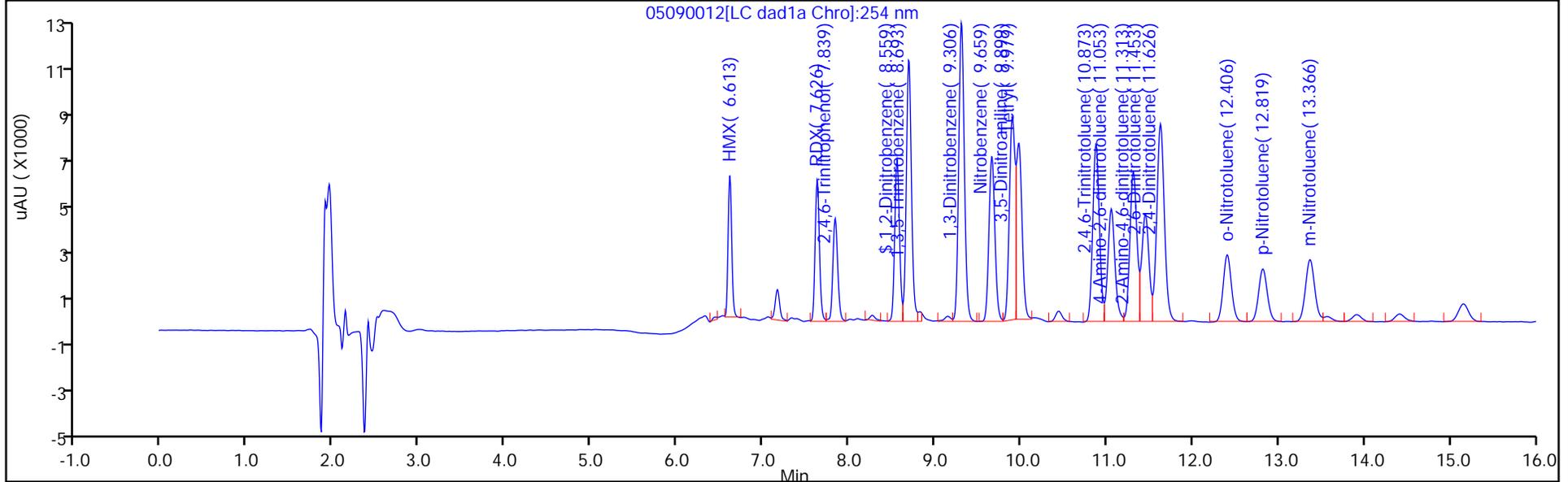
ALS Bottle#: 12

Method: 8330_X3

Limit Group: GCSV - 8330

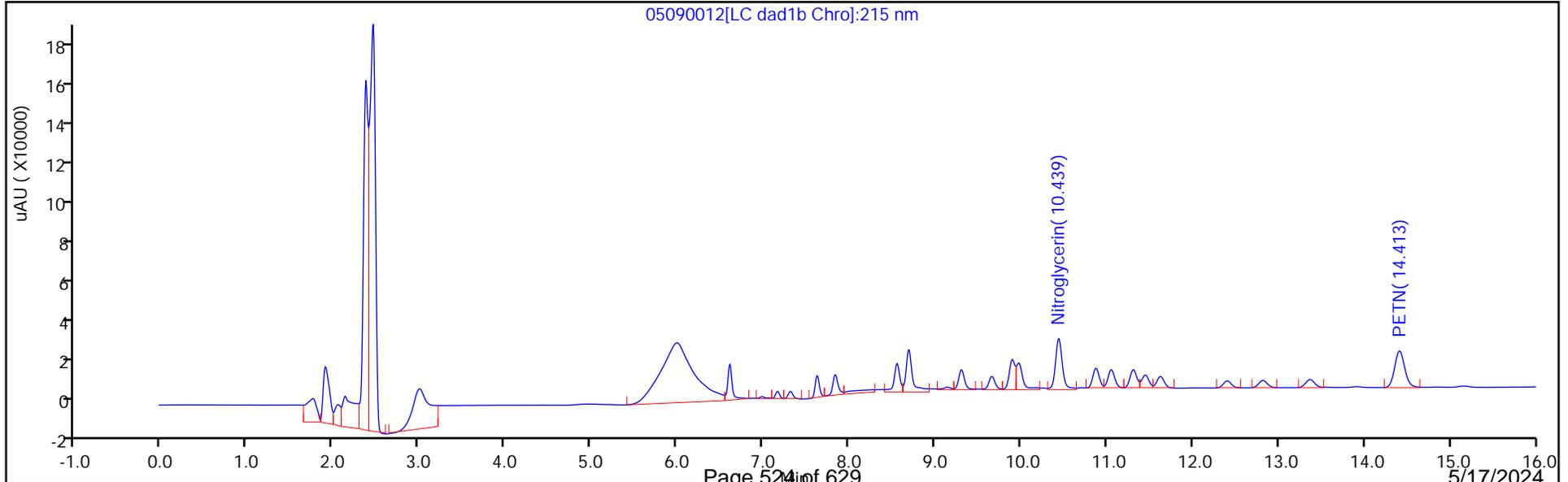
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090012.D
 Lims ID: LCS 280-652546/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 09-May-2024 17:52:23 ALS Bottle#: 12 Worklist Smp#: 12
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: LCS 280-652546/2-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 18:21:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1894	94.71

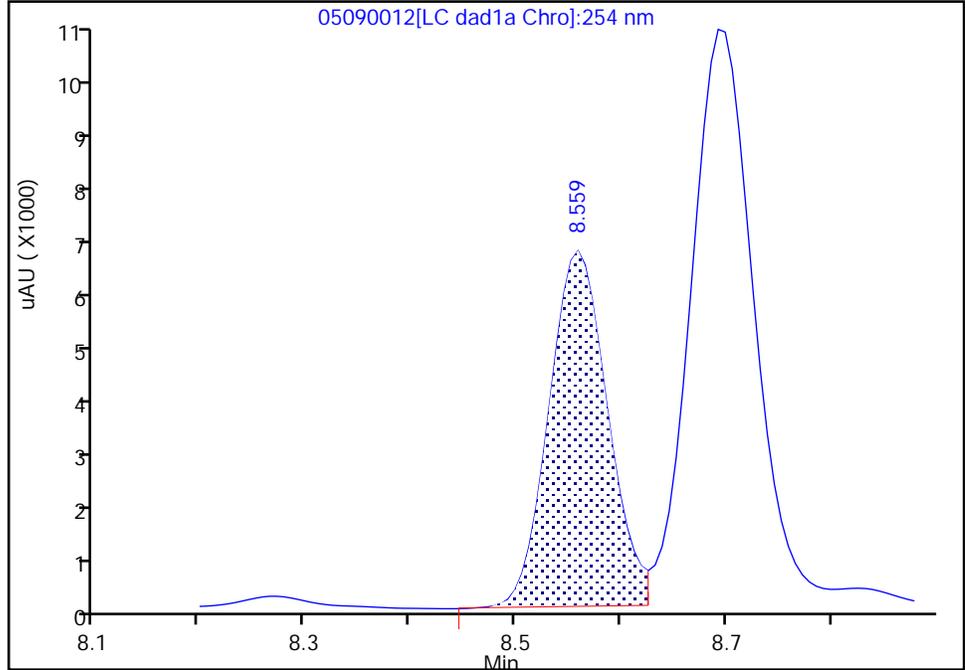
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090012.d
Injection Date: 09-May-2024 17:52:23 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-652546/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

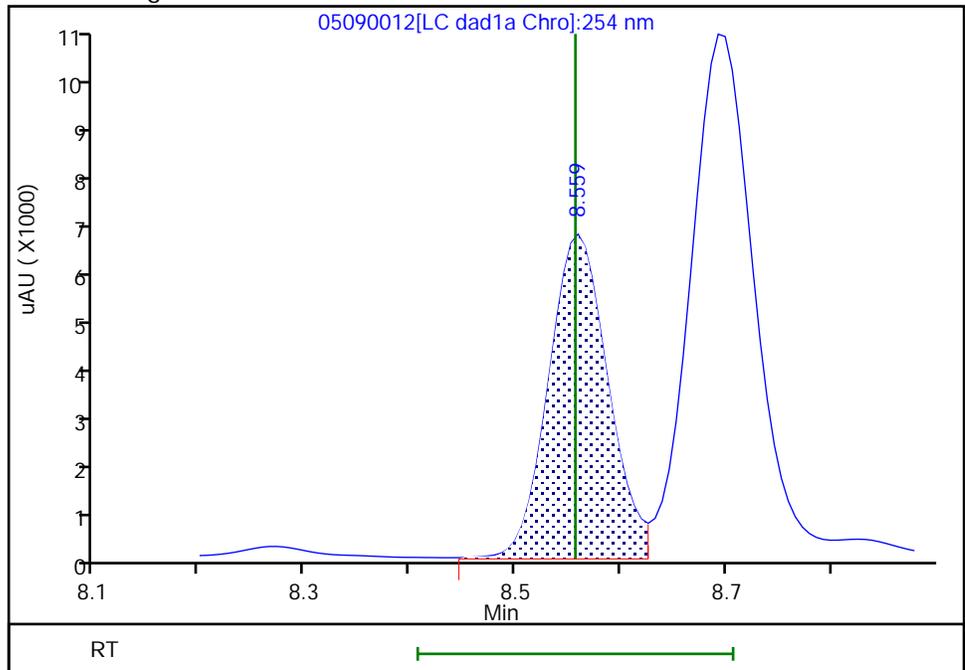
RT: 8.56
Area: 24617
Amount: 0.186303
Amount Units: ug/mL

Processing Integration Results



RT: 8.56
Area: 25028
Amount: 0.189425
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:21:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

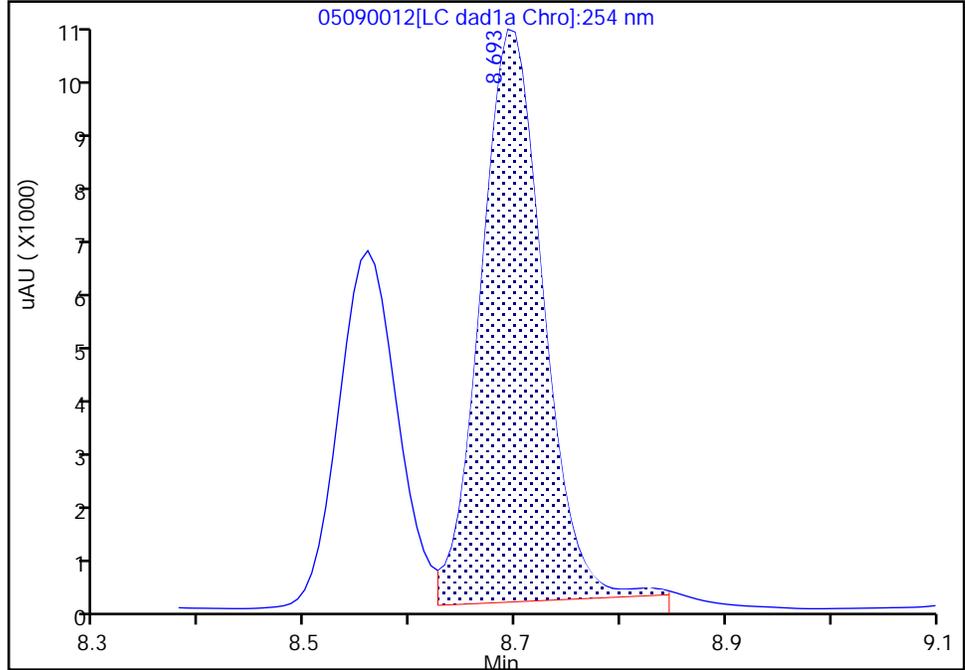
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090012.d
Injection Date: 09-May-2024 17:52:23 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-652546/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

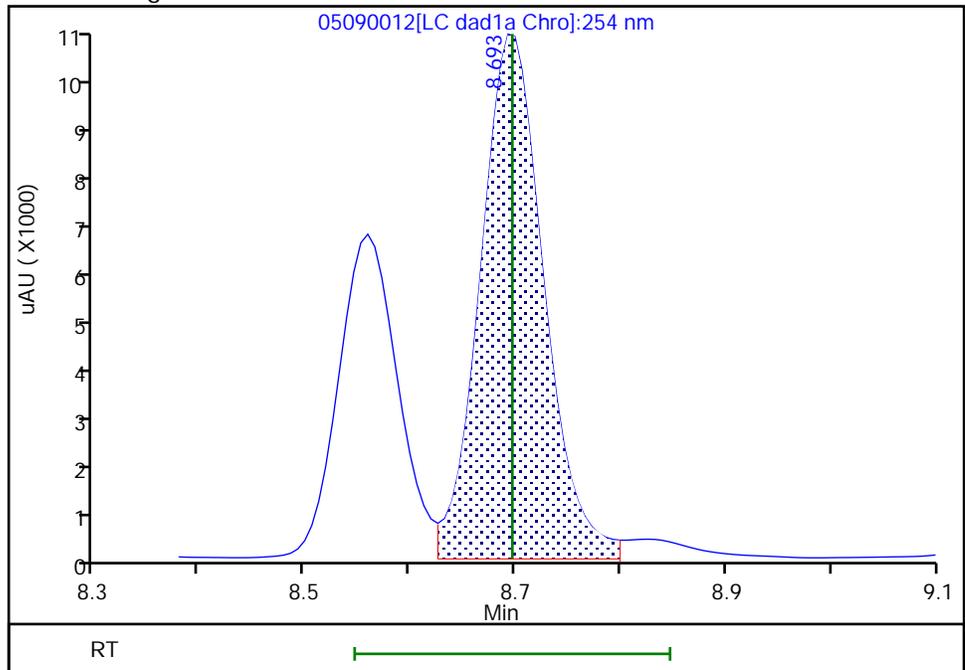
RT: 8.69
Area: 42466
Amount: 0.190556
Amount Units: ug/mL

Processing Integration Results



RT: 8.69
Area: 43490
Amount: 0.195151
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:21:56 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

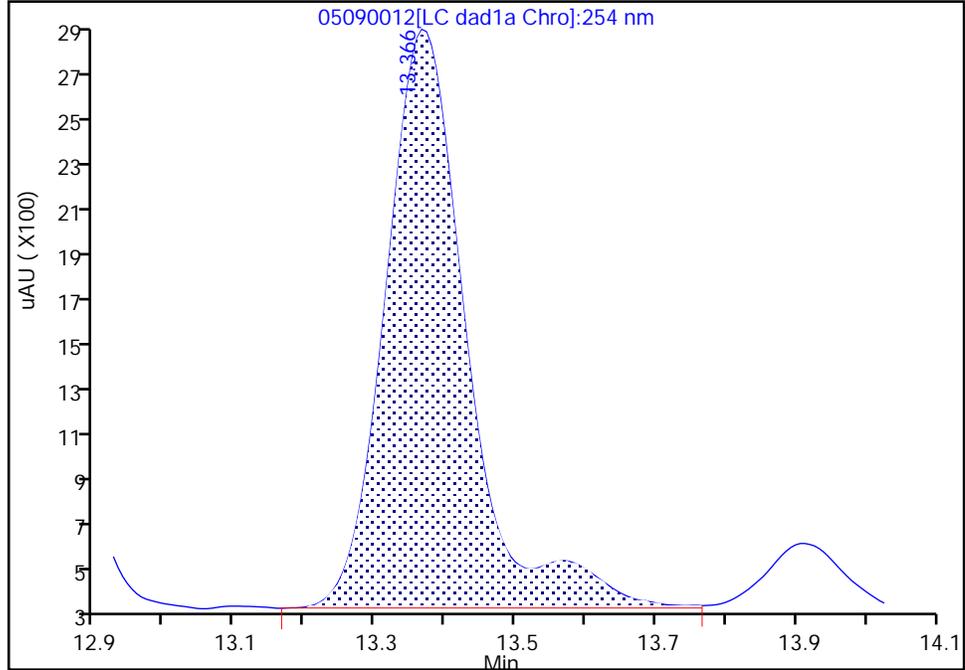
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090012.d
Injection Date: 09-May-2024 17:52:23 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-652546/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

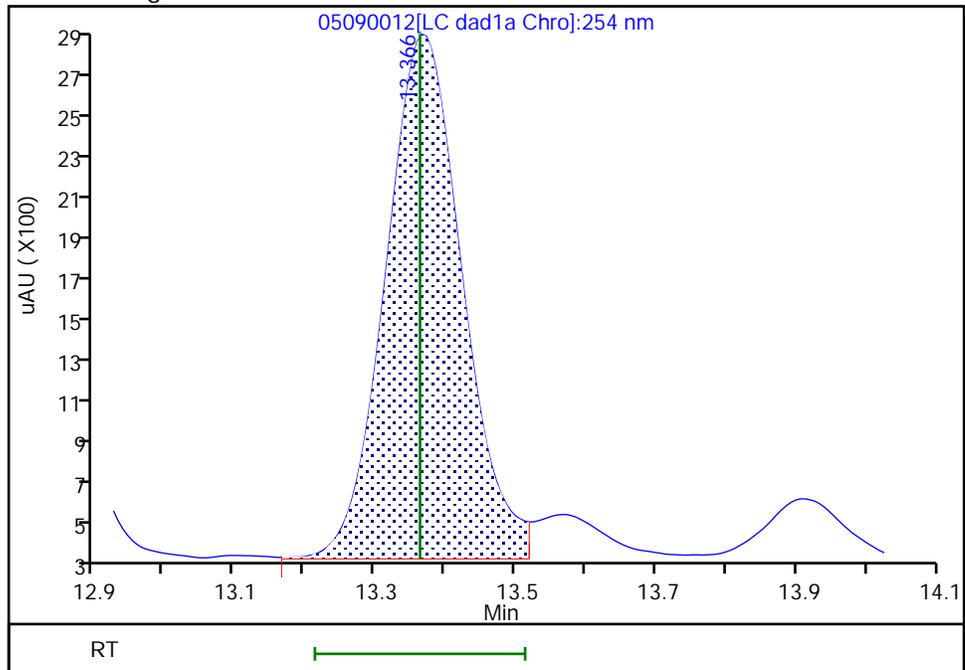
RT: 13.37
Area: 20175
Amount: 0.140043
Amount Units: ug/mL

Processing Integration Results



RT: 13.37
Area: 18731
Amount: 0.130019
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:21:47 -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.: 280-190903-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 280-652546/3-A
 Matrix: Water Lab File ID: 05090013.D
 Analysis Method: 8330B Date Collected: _____
 Extraction Method: 3535 Date Extracted: 05/08/2024 13:50
 Sample wt/vol: 500(mL) Date Analyzed: 05/09/2024 18:15
 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.: 652806 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.93	M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.77		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.75		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.63		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.66		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.68		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.34	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.27	Q M	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.71		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.30	Q	0.41	0.40	0.10
2691-41-0	HMX	1.76		0.21	0.20	0.088
98-95-3	Nitrobenzene	1.58		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.8		2.1	2.0	0.92
78-11-5	PETN	20.0		1.1	1.0	0.45
121-82-4	RDX	1.77		0.21	0.20	0.052
479-45-8	Tetryl	1.72		0.11	0.10	0.032

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\20240509-133212.b\05090013.D
 Lims ID: LCSD 280-652546/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 09-May-2024 18:15:19 ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: LCSD 280-652546/3-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 18:40:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.614	6.610	0.004	16848	0.2000	0.1763	
8 RDX	1	7.628	7.624	0.004	19638	0.2000	0.1773	
9 2,4,6-Trinitrophenol	1	7.834	7.837	-0.003	16090	0.2000	0.2028	
\$ 10 1,2-Dinitrobenzene	1	8.554	8.557	-0.003	24744	0.2000	0.1873	M
11 1,3,5-Trinitrobenzene	1	8.694	8.697	-0.003	42900	0.2000	0.1925	M
12 1,3-Dinitrobenzene	1	9.308	9.310	-0.002	53058	0.2000	0.1772	
13 Nitrobenzene	1	9.668	9.663	0.005	31064	0.2000	0.1582	
14 3,5-Dinitroaniline	1	9.901	9.903	-0.002	36832	0.2000	0.1677	
15 Tetryl	1	9.981	9.977	0.004	31254	0.2000	0.1721	
16 Nitroglycerin	2	10.448	10.443	0.005	131496	2.00	1.98	
17 2,4,6-Trinitrotoluene	1	10.881	10.877	0.004	37707	0.2000	0.1752	
18 4-Amino-2,6-dinitrotoluene	1	11.061	11.057	0.004	25699	0.2000	0.1714	
19 2-Amino-4,6-dinitrotoluene	1	11.321	11.310	0.011	33524	0.2000	0.1678	
20 2,6-Dinitrotoluene	1	11.461	11.450	0.011	24371	0.2000	0.1659	
21 2,4-Dinitrotoluene	1	11.634	11.623	0.011	47638	0.2000	0.1632	
22 o-Nitrotoluene	1	12.414	12.397	0.017	17389	0.2000	0.1345	
23 p-Nitrotoluene	1	12.834	12.817	0.017	14629	0.2000	0.1297	
24 m-Nitrotoluene	1	13.388	13.363	0.025	18341	0.2000	0.1273	M
25 PETN	2	14.448	14.403	0.045	144044	2.00	2.00	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090013.d

Injection Date: 09-May-2024 18:15:19 Instrument ID: CHHPLC_X3

Operator ID: JZ

Lims ID: LCSD 280-652546/3-A

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

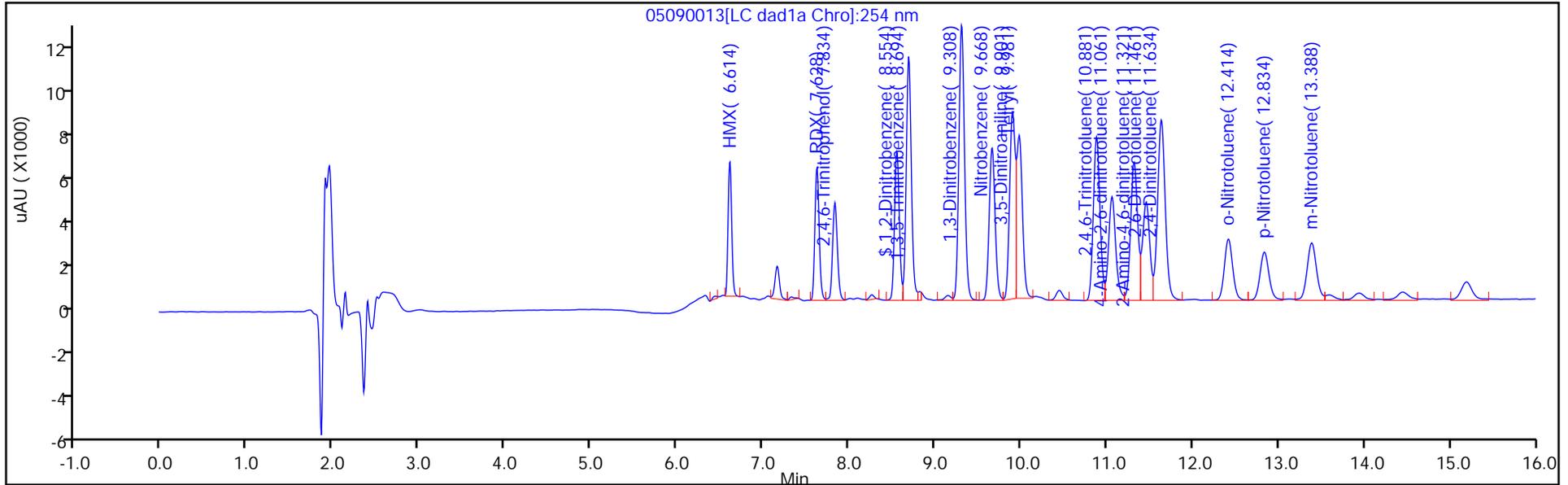
ALS Bottle#: 13

Method: 8330_X3

Limit Group: GCSV - 8330

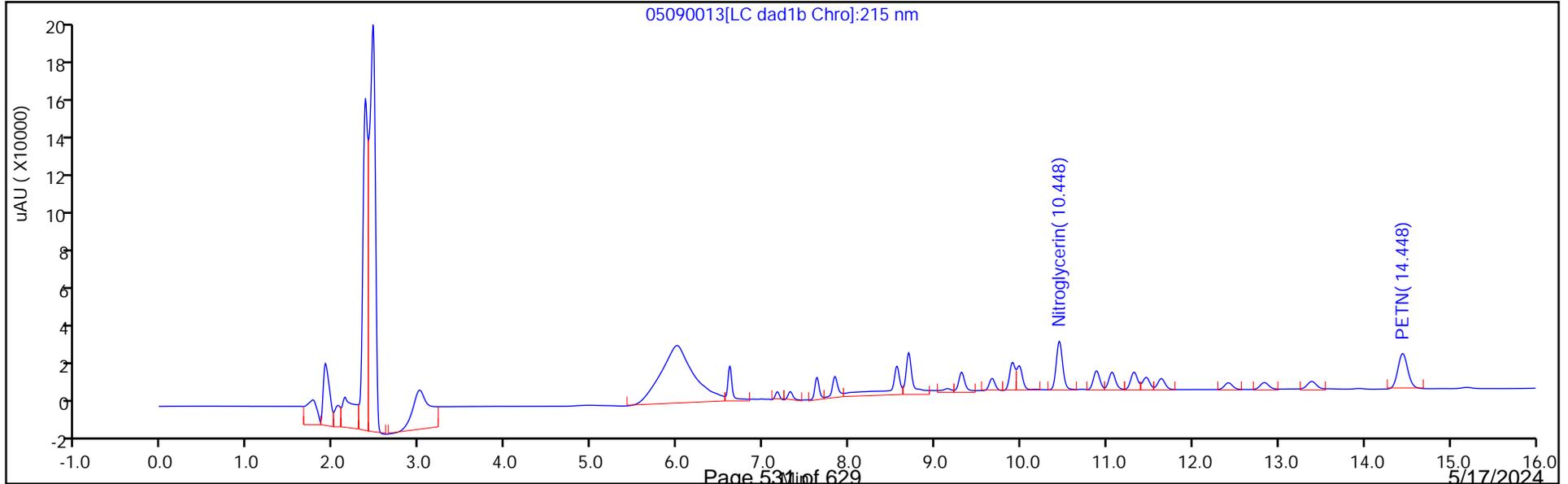
Column: UltraCarb5uODS (20) (4.60 mm)

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



Column: UltraCarb5uODS (20) (4.60 mm)

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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\05090013.D
 Lims ID: LCSD 280-652546/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 09-May-2024 18:15:19 ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 100.0 ul Dil. Factor: 1.0000
 Sample Info: LCSD 280-652546/3-A
 Operator ID: JZ Instrument ID: CHHPLC_X3
 Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240509-133212.b\8330_X3.m
 Limit Group: GCSV - 8330
 Last Update: 10-May-2024 12:45:10 Calib Date: 18-Apr-2024 03:08:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D
 Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
 Process Host: CTX1691

First Level Reviewer: LV5D Date: 09-May-2024 18:40:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1873	93.63

Eurofins Denver

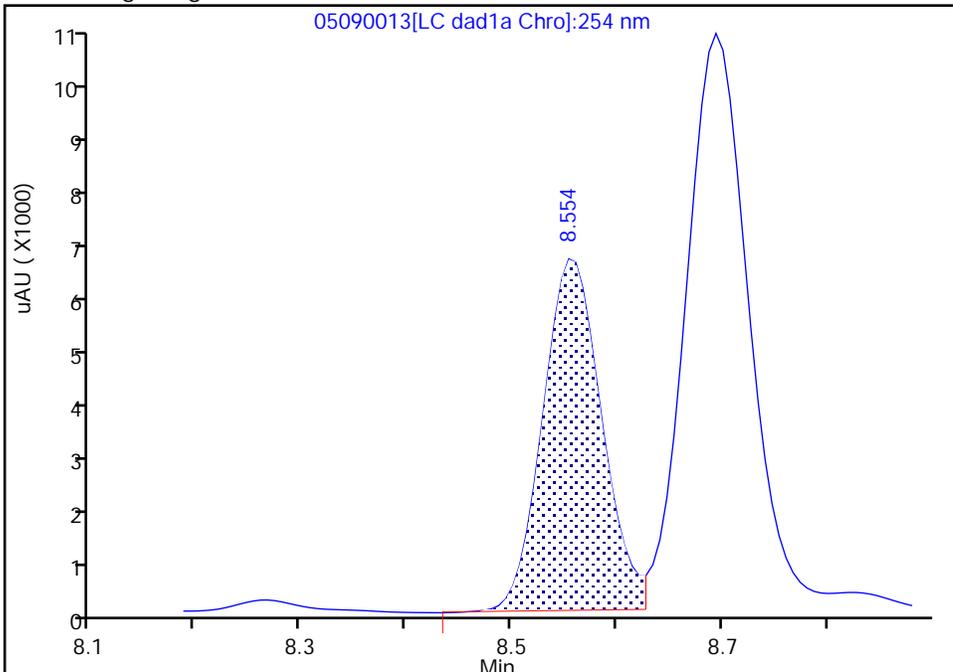
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090013.d
Injection Date: 09-May-2024 18:15:19 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-652546/3-A
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

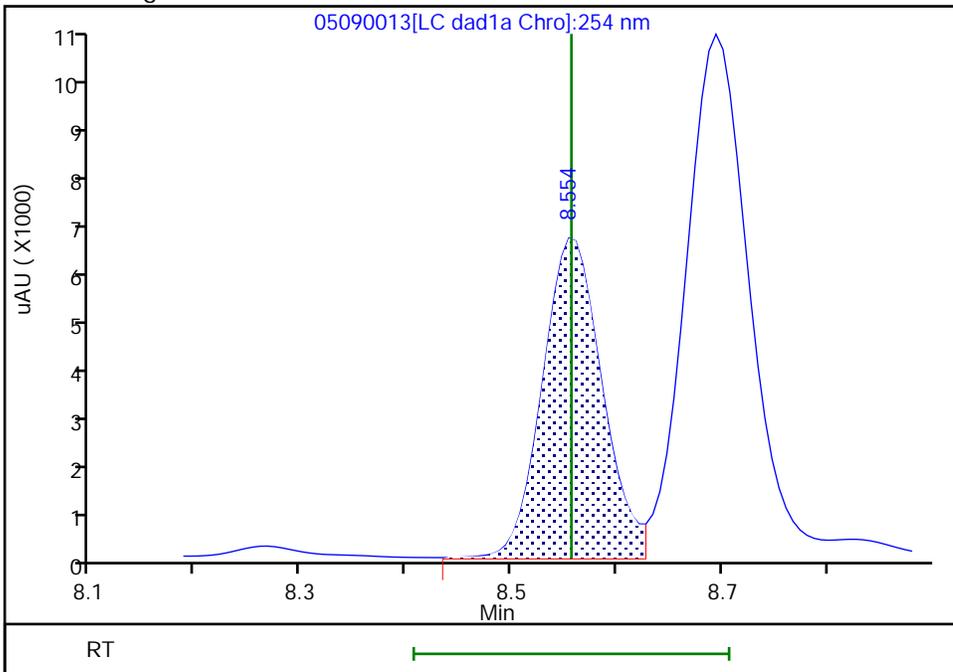
RT: 8.55
Area: 24251
Amount: 0.183523
Amount Units: ug/mL

Processing Integration Results



RT: 8.55
Area: 24744
Amount: 0.187268
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:40:21 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

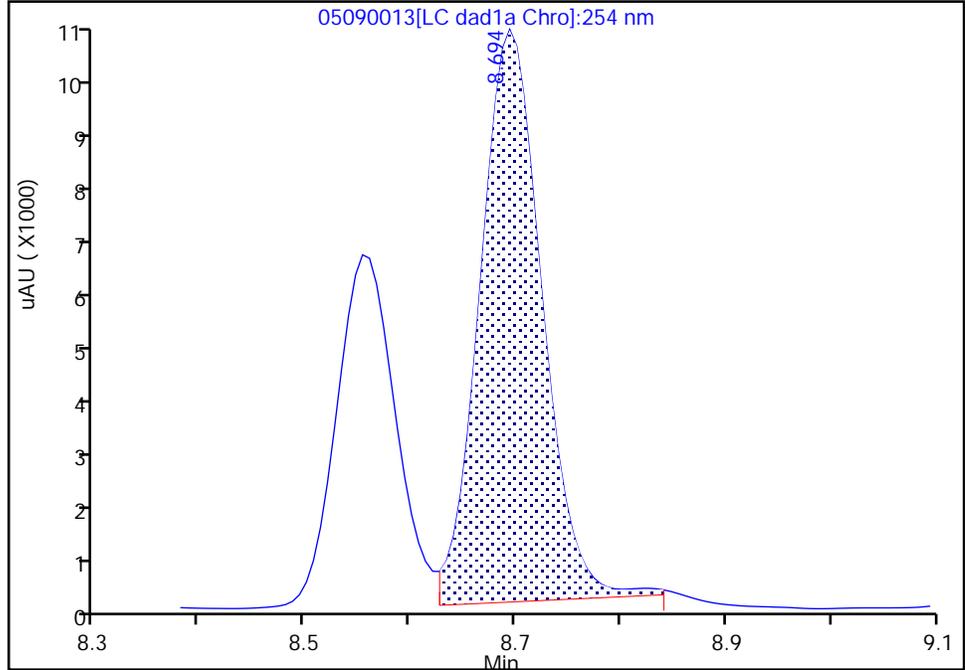
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090013.d
Injection Date: 09-May-2024 18:15:19 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-652546/3-A
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

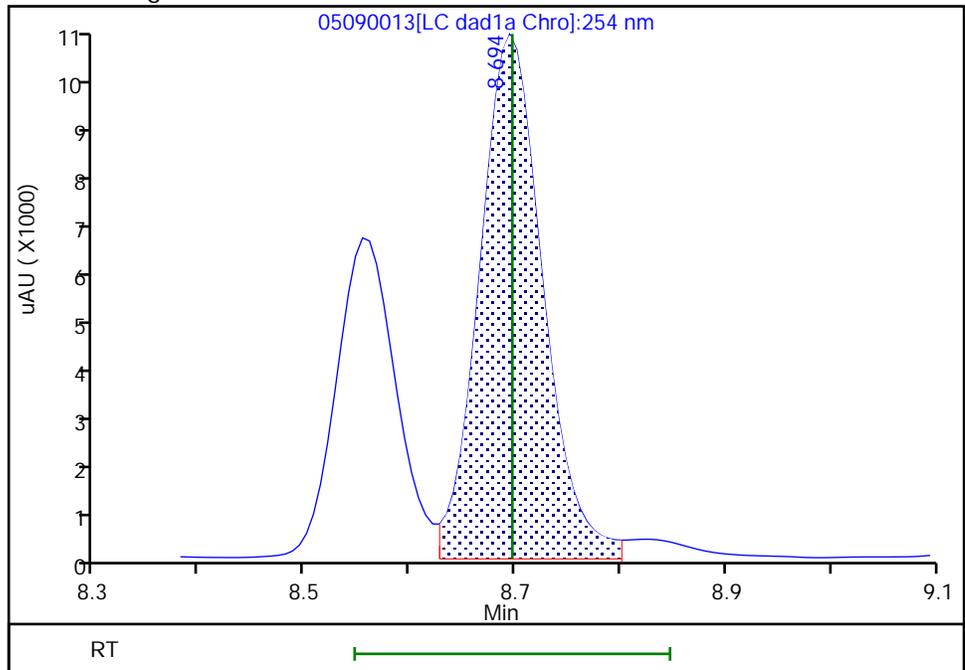
RT: 8.69
Area: 41635
Amount: 0.186827
Amount Units: ug/mL

Processing Integration Results



RT: 8.69
Area: 42900
Amount: 0.192503
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:40:25 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

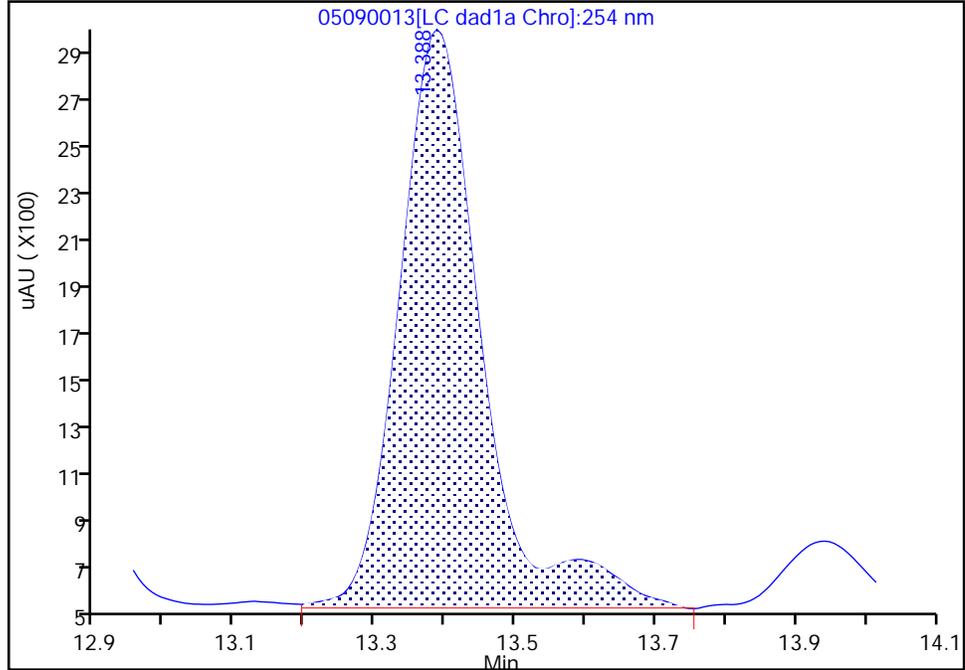
Data File: \\chromfs\denver\chromdata\chhplc_x\20240509-133212.b\05090013.d
Injection Date: 09-May-2024 18:15:19 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-652546/3-A
Client ID:
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector: LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

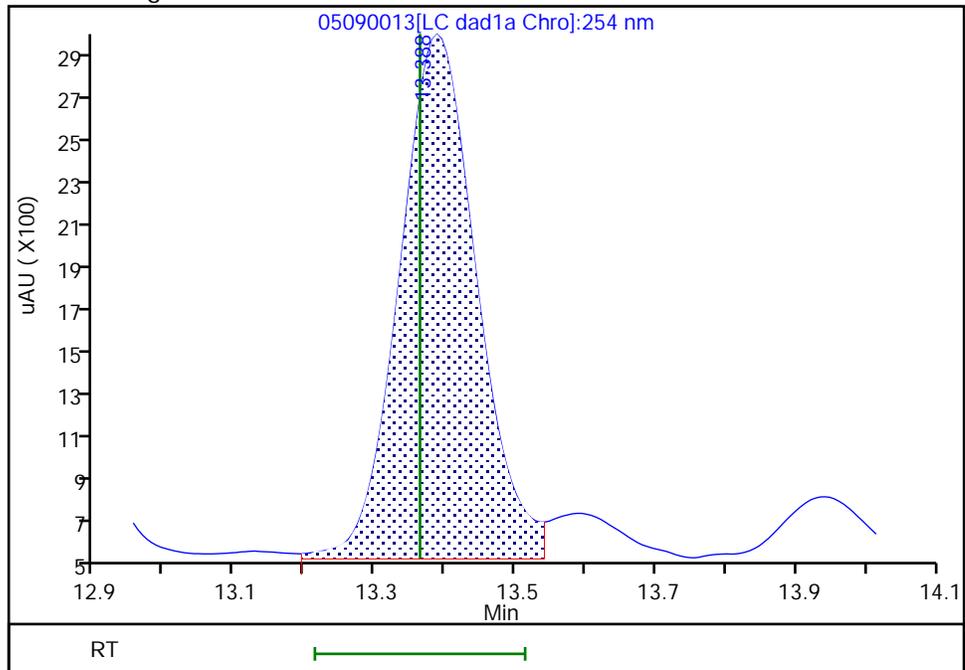
RT: 13.39
Area: 19786
Amount: 0.137342
Amount Units: ug/mL

Processing Integration Results



RT: 13.39
Area: 18341
Amount: 0.127312
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 18:40:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Start Date: 04/17/2024 20:37

Analysis Batch Number: 649950 End Date: 04/18/2024 03:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-649950/11		04/17/2024 20:37	1	04170011.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/12		04/17/2024 21:00	1	04170012.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/13		04/17/2024 21:23	1	04170013.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/14		04/17/2024 21:46	1	04170014.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/15		04/17/2024 22:09	1	04170015.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/16		04/17/2024 22:32	1	04170016.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/17		04/17/2024 22:55	1	04170017.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/18		04/17/2024 23:18	1	04170018.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/19		04/17/2024 23:41	1	04170019.D	UltraCarb5uODS 4.6 (mm)
ICV 280-649950/20		04/18/2024 00:04	1	04170020.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/21		04/18/2024 00:27	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/22		04/18/2024 00:50	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/23		04/18/2024 01:13	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/24		04/18/2024 01:36	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/25		04/18/2024 01:59	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/26		04/18/2024 02:22	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/27		04/18/2024 02:45	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/28		04/18/2024 03:08	1		UltraCarb5uODS 4.6 (mm)
ICV 280-649950/29		04/18/2024 03:30	1		UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/24/2024 21:28

Analysis Batch Number: 650851 End Date: 04/25/2024 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-650851/10		04/24/2024 21:28	1	04240010.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/11		04/24/2024 22:04	1	04240011.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/12		04/24/2024 22:40	1	04240012.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/13		04/24/2024 23:16	1	04240013.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/14		04/24/2024 23:51	1	04240014.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/15		04/25/2024 00:27	1	04240015.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/16		04/25/2024 01:03	1	04240016.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/17		04/25/2024 01:39	1	04240017.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/18		04/25/2024 02:15	1	04240018.D	Luna-phenylhex 4.6 (mm)
ICV 280-650851/19		04/25/2024 02:51	1	04240019.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/20		04/25/2024 03:27	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/21		04/25/2024 04:03	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/22		04/25/2024 04:39	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/23		04/25/2024 05:15	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/24		04/25/2024 05:51	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/25		04/25/2024 06:27	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/26		04/25/2024 07:03	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/27		04/25/2024 07:39	1		Luna-phenylhex 4.6 (mm)
ICV 280-650851/28		04/25/2024 08:15	1		Luna-phenylhex 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Start Date: 05/09/2024 17:06

Analysis Batch Number: 652806 End Date: 05/09/2024 23:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-652806/7		05/09/2024 17:06	1	05090007.D	UltraCarb5uODS 4.6 (mm)
MB 280-652546/1-A		05/09/2024 17:29	1	05090011.D	UltraCarb5uODS 4.6 (mm)
LCS 280-652546/2-A		05/09/2024 17:52	1	05090012.D	UltraCarb5uODS 4.6 (mm)
LCSD 280-652546/3-A		05/09/2024 18:15	1	05090013.D	UltraCarb5uODS 4.6 (mm)
280-190903-2	FWGmw-015-240401-GW	05/09/2024 18:38	1	05090014.D	UltraCarb5uODS 4.6 (mm)
280-190903-4	FBQmw-173-240401-GW	05/09/2024 19:01	1	05090015.D	UltraCarb5uODS 4.6 (mm)
280-190903-5	FBQmw-173-240402-GW	05/09/2024 19:24	1	05090016.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 19:47	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 20:10	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 20:33	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 20:56	1		UltraCarb5uODS 4.6 (mm)
CCV 280-652806/21		05/09/2024 21:19	1	05090021.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 21:41	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 22:04	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 22:27	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 22:50	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 23:13	1		UltraCarb5uODS 4.6 (mm)
CCV 280-652806/27		05/09/2024 23:36	1		UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/09/2024 21:28

Analysis Batch Number: 652810 End Date: 05/10/2024 07:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-652810/14		05/09/2024 21:28	1	05090014.D	Luna-phenylhex 4.6 (mm)
ZZZZZ		05/09/2024 22:04	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/09/2024 22:40	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/09/2024 23:16	1		Luna-phenylhex 4.6 (mm)
280-190903-4	FBQmw-173-240401-GW	05/10/2024 00:28	1	05090019.D	Luna-phenylhex 4.6 (mm)
280-190903-5	FBQmw-173-240402-GW	05/10/2024 01:04	1	05090020.D	Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 01:40	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 02:16	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 02:52	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 03:28	1		Luna-phenylhex 4.6 (mm)
CCV 280-652810/25		05/10/2024 04:04	1	05090025.D	Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 04:40	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 05:52	1		Luna-phenylhex 4.6 (mm)
ZZZZZ		05/10/2024 06:27	1		Luna-phenylhex 4.6 (mm)
CCV 280-652810/31		05/10/2024 07:39	1		Luna-phenylhex 4.6 (mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 649950 Batch Start Date: 04/17/24 20:37 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00134	8330 OP DMT 00026	8330IntermStk 00080	8330Surrogate 00154
IC 280-649950/11		8330B			1 mL	125 uL			250 uL	
IC 280-649950/12		8330B			1 mL	50 uL			100 uL	
IC 280-649950/13		8330B			1 mL	35 uL			70 uL	
IC 280-649950/14		8330B			1 mL	20 uL			40 uL	
IC 280-649950/15		8330B			1 mL	12.5 uL			25 uL	
IC 280-649950/16		8330B			1 mL	5 uL			10 uL	
IC 280-649950/17		8330B			1 mL	2.5 uL			5 uL	
IC 280-649950/18		8330B			1 mL	1 uL			2 uL	
IC 280-649950/19		8330B			1 mL	0.5 uL			1 uL	
ICV 280-649950/20		8330B			1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	233990

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.: 280-190903-1

SDG No.: _____

Batch Number: 650851 Batch Start Date: 04/24/24 21:28 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 LCS 00134	8330IntermStk 00080	8330Surrogate 00154		
IC 280-650851/10		8330B			1 mL		250 uL			
IC 280-650851/11		8330B			1 mL		100 uL			
IC 280-650851/12		8330B			1 mL		70 uL			
IC 280-650851/13		8330B			1 mL		40 uL			
IC 280-650851/14		8330B			1 mL		25 uL			
IC 280-650851/15		8330B			1 mL		10 uL			
IC 280-650851/16		8330B			1 mL		5 uL			
IC 280-650851/17		8330B			1 mL		2 uL			
IC 280-650851/18		8330B			1 mL		1 uL			
ICV 280-650851/19		8330B			1 mL	50 uL		50 uL		

Batch Notes	
Methanol ID	233990

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.: 280-190903-1

SDG No.: _____

Batch Number: 652546 Batch Start Date: 05/08/24 13:50 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/08/24 16:25

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-652546/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-652546/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCS 280-652546/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-190903-B-2	FWGmw-015-24040 1-GW	3535, 8330B	Water	T	744.7 g	282.5 g	462.2 mL	5 mL		0.1 mL
280-190903-A-4	FBQmw-173-24040 1-GW	3535, 8330B	Water	T	761.2 g	280.1 g	481.1 mL	5 mL		0.1 mL
280-190903-B-5	FBQmw-173-24040 2-GW	3535, 8330B	Water	T	758.6 g	282.5 g	476.1 mL	5 mL		0.1 mL

Batch Notes	
First Start time	05/08/2024 14:05
First End time	05/08/2024 16:02
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: B
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00092
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00087
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00004
Analyst ID - Spike Analyst	AA
Analyst ID - Spike Witness Analyst	Reviewer: JZ
Batch Comment	DV-OP-0017

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.: 280-190903-1

SDG No.: _____

Batch Number: 652546 Batch Start Date: 05/08/24 13:50 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/08/24 16:25

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190903-1

SDG No.: _____

Project: RVAAP FWGW

Client Sample ID	Lab Sample ID
LL12mw-185-240401-GW	280-190903-1
LL12mw-245-240401-GW	280-190903-3

Comments:

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: LL12mw-185-240401-GW

Lab Sample ID: 280-190903-1

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG ID.: _____

Matrix: Water

Date Sampled: 05/01/2024 10:12

Reporting Basis: WET

Date Received: 05/02/2024 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.089	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	57	10	4.0	1.8	mg/L		D	20	9056

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: LL12mw-245-240401-GW

Lab Sample ID: 280-190903-3

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG ID.: _____

Matrix: Water

Date Sampled: 05/01/2024 11:45

Reporting Basis: WET

Date Received: 05/02/2024 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.089	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.10	0.50	0.20	0.090	mg/L	J		1	9056

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Analyst: LBR Batch Start Date: 05/11/2024
 Reporting Units: mg/L Analytical Batch No.: 653086

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	ICV	11:50	Ammonia as N	2.65	2.51	106	90-110		350.1 ICV_00608
17	ICVL	11:52	Ammonia as N	0.546	0.501	109	90-110		350.1 ICV_00608
18	ICB	11:54	Ammonia as N	0.050				U	
71	CCV	13:49	Ammonia as N	2.47	2.50	99	90-110		350.1 cal_00629
73	CCVL	13:54	Ammonia as N	0.535	0.500	107	90-110		350.1 cal_00629
74	CCB	13:56	Ammonia as N	0.050				U	
94	CCV	14:39	Ammonia as N	2.46	2.50	99	90-110		350.1 cal_00629
96	CCVL	14:44	Ammonia as N	0.522	0.500	104	90-110		350.1 cal_00629
97	CCB	14:46	Ammonia as N	0.050				U	
111	CCV	15:16	Ammonia as N	2.49	2.50	100	90-110		350.1 cal_00629
113	CCVL	15:20	Ammonia as N	0.531	0.500	106	90-110		350.1 cal_00629
114	CCB	15:22	Ammonia as N	0.050				U	
134	CCV	16:06	Ammonia as N	2.44	2.50	97	90-110		350.1 cal_00629
136	CCVL	16:10	Ammonia as N	0.526	0.500	105	90-110		350.1 cal_00629
137	CCB	16:13	Ammonia as N	0.050				U	

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

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Analyst: IRC Batch Start Date: 03/28/2024
 Reporting Units: mg/L Analytical Batch No.: 647507

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	16:06	Nitrate as N	3.98	4.00	99	90-110		IC ICV 5_00432
9	ICB	16:23	Nitrate as N	0.20				U	

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

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Analyst: EJS Batch Start Date: 05/02/2024
 Reporting Units: mg/L Analytical Batch No.: 651853

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:00	Nitrate as N	4.69	5.00	94	90-110		IC LCS_02033
2	CCB	12:17	Nitrate as N	0.20				U	
20	CCV	22:05	Nitrate as N	5.00	5.00	100	90-110		IC LCS_02033
21	CCB	22:22	Nitrate as N	0.20				U	

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

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 653086 Date: 05/11/2024 14:03							
350.1	MB 280-653086/77	Ammonia as N	0.050	U	mg/L	0.10	1
Batch ID: 651853 Date: 05/02/2024 13:26							
9056	MB 280-651853/6	Nitrate as N	0.20	U	mg/L	0.50	1

7A-IN
 LAB CONTROL SAMPLE
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job No.: 280-190903-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086 Date: 05/11/2024 14:04											
						LCS Source: 350.1 cal_00629					
350.1	LCS 280-653086/78	Ammonia as N	2.47		mg/L	2.50	99	90-110	3	10	
Batch ID: 651853 Date: 05/02/2024 12:51											
						LCS Source: IC LCS_02033					
9056	LCS 280-651853/4	Nitrate as N	4.95		mg/L	5.00	99	88-111	0	10	

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

FORM VIIA-IN

7A-IN
 LAB CONTROL SAMPLE DUPLICATE
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086 Date: 05/11/2024 14:07											
						LCSD Source: 350.1 cal_00629					
350.1	LCSD 280-653086/79	Ammonia as N	2.55		mg/L	2.50	102	90-110	3	10	
Batch ID: 651853 Date: 05/02/2024 13:09											
						LCSD Source: IC LCS_02033					
9056	LCSD 280-651853/5	Nitrate as N	4.96		mg/L	5.00	99	88-111	0	10	

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

FORM VIIA-IN

7A-IN
 METHOD REPORTING LIMIT CHECK
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1
 SDG No.: _____
 Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 651853 Date: 05/02/2024 12:34											
						LCS Source: IC Cal low_00772					
9056	MRL 280-651853/3	Nitrate as N	0.450	J	mg/L	0.500	90	50-150			

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

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-190903-1
SDG No.: _____ Analysis Batch No.: 647507
Instrument ID: WC_IonChrom10 Calibration ID: 91632
Start Date: 03/28/2024 14:08 End Date: 03/28/2024 15:32
Analytical Method: 9056

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	1.0000	48500000	-3990000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-190903-1
SDG No.: _____ Analysis Batch No.: 647507
Instrument ID: WC_IonChrom10 Calibration ID: 91632
Start Date: 03/28/2024 14:08 End Date: 03/28/2024 15:32
Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	0.20	0.22	11	0.50	0.47	-6	1.0	0.94	-6

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-190903-1
SDG No.: _____ Analysis Batch No.: 647507
Instrument ID: WC_IonChrom10 Calibration ID: 91632
Start Date: 03/28/2024 14:08 End Date: 03/28/2024 15:32
Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	4.0	4.0	0	8.0	8.0	0	10.0	10.1	1

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job Number: 280-190903-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_SKALAR_01

Method: 350.1

DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia as N		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190903-1
SDG Number: _____
Matrix: Water Instrument ID: WC_SKALAR_01
Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job Number: 280-190903-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom10

Method: 9056

DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190903-1
SDG Number: _____
Matrix: Water Instrument ID: WC_IonChrom10
Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/11/2024 11:17 End Date: 05/11/2024 18:14

Lab Sample Id	D/F	T Y P e	Time	Analytes															
				N H 3															
ZZZZZZ			12:46																
ZZZZZZ			12:49																
ZZZZZZ			12:51																
ZZZZZZ			12:53																
ZZZZZZ			12:55																
ZZZZZZ			12:57																
ZZZZZZ			12:59																
ZZZZZZ			13:02																
ZZZZZZ			13:04																
ZZZZZZ			13:06																
ZZZZZZ			13:08																
ZZZZZZ			13:10																
CCV 280-653086/54			13:12																
ZZZZZZ			13:15																
CCVL 280-653086/56			13:17																
CCB 280-653086/57			13:19																
ZZZZZZ			13:21																
ZZZZZZ			13:23																
ZZZZZZ			13:26																
ZZZZZZ			13:28																
ZZZZZZ			13:30																
ZZZZZZ			13:32																
ZZZZZZ			13:34																
ZZZZZZ			13:36																
ZZZZZZ			13:38																
ZZZZZZ			13:41																
ZZZZZZ			13:43																
ZZZZZZ			13:45																
ZZZZZZ			13:47																
CCV 280-653086/71	1		13:49	X															
ZZZZZZ			13:52																
CCVL 280-653086/73	1		13:54	X															
CCB 280-653086/74	1		13:56	X															
ZZZZZZ			13:58																
ZZZZZZ			14:00																
MB 280-653086/77	1	T	14:03	X															
LCS 280-653086/78	1	T	14:04	X															
LCSD 280-653086/79	1	T	14:07	X															
ZZZZZZ			14:09																
ZZZZZZ			14:11																
ZZZZZZ			14:13																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/11/2024 11:17 End Date: 05/11/2024 18:14

Lab Sample Id	D/F	T Y P e	Time	Analytes															
				N H 3															
ZZZZZZ			14:15																
ZZZZZZ			14:18																
ZZZZZZ			14:20																
ZZZZZZ			14:22																
ZZZZZZ			14:24																
ZZZZZZ			14:26																
ZZZZZZ			14:28																
ZZZZZZ			14:31																
ZZZZZZ			14:33																
280-190903-3	1	T	14:35	X															
ZZZZZZ			14:37																
CCV 280-653086/94	1		14:39	X															
ZZZZZZ			14:41																
CCVL 280-653086/96	1		14:44	X															
CCB 280-653086/97	1		14:46	X															
ZZZZZZ			14:48																
ZZZZZZ			14:50																
ZZZZZZ			14:52																
ZZZZZZ			14:54																
ZZZZZZ			14:57																
ZZZZZZ			14:59																
ZZZZZZ			15:01																
ZZZZZZ			15:03																
ZZZZZZ			15:05																
ZZZZZZ			15:07																
ZZZZZZ			15:10																
ZZZZZZ			15:12																
ZZZZZZ			15:14																
CCV 280-653086/111	1		15:16	X															
ZZZZZZ			15:18																
CCVL 280-653086/113	1		15:20	X															
CCB 280-653086/114	1		15:22	X															
ZZZZZZ			15:25																
ZZZZZZ			15:27																
ZZZZZZ			15:29																
280-190903-1	1	T	15:31	X															
ZZZZZZ			15:33																
ZZZZZZ			15:36																
ZZZZZZ			15:38																
ZZZZZZ			15:40																
ZZZZZZ			15:42																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 05/02/2024 12:00 End Date: 05/03/2024 02:39

Lab Sample Id	D/F	T Y P e	Time	Analytes															
				N O 3															
CCV 280-651853/1	1		12:00	X															
CCB 280-651853/2	1		12:17	X															
MRL 280-651853/3	1	T	12:34	X															
LCS 280-651853/4	1	T	12:51	X															
LCSD 280-651853/5	1	T	13:09	X															
MB 280-651853/6	1	T	13:26	X															
ZZZZZZ			18:21																
ZZZZZZ			18:39																
280-190903-1	20	T	18:56	X															
ZZZZZZ			19:13																
ZZZZZZ			19:30																
280-190903-3	1	T	19:47	X															
ZZZZZZ			20:04																
ZZZZZZ			20:22																
ZZZZZZ			20:39																
ZZZZZZ			20:57																
ZZZZZZ			21:14																
ZZZZZZ			21:31																
ZZZZZZ			21:48																
CCV 280-651853/20	1		22:05	X															
CCB 280-651853/21	1		22:22	X															
ZZZZZZ			22:39																
ZZZZZZ			22:57																
ZZZZZZ			23:14																
ZZZZZZ			23:31																
ZZZZZZ			23:48																
ZZZZZZ			00:05																
ZZZZZZ			00:22																
ZZZZZZ			00:39																
ZZZZZZ			00:57																
ZZZZZZ			01:14																
ZZZZZZ			01:31																
ZZZZZZ			01:48																
ZZZZZZ			02:05																
CCV 280-651853/38			02:22																
CCB 280-651853/39			02:39																

Prep Types: _____
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 653086 Batch Start Date: 05/11/24 11:17 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00629	350.1 ICV 00608
ICV 280-653086/16		350.1			no	100 mL	100 mL	<2 SU		2.5 mL
ICVL 280-653086/17		350.1			no	100 mL	100 mL	<2 SU		0.5 mL
ICB 280-653086/18		350.1			no	30 mL	30 mL	<2 SU		
CCV 280-653086/71		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/73		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/74		350.1			no	30 mL	30 mL	<2 SU		
MB 280-653086/77		350.1			no	30 mL	30 mL	<2 SU		
LCS 280-653086/78		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-653086/79		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
280-190903-A-3	LL12mw-245-2404 01-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
CCV 280-653086/94		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/96		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/97		350.1			no	30 mL	30 mL	<2 SU		
CCV 280-653086/111		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/113		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/114		350.1			no	30 mL	30 mL	<2 SU		
280-190903-A-1	LL12mw-185-2404 01-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
CCV 280-653086/134		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/136		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/137		350.1			no	30 mL	30 mL	<2 SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 653086 Batch Start Date: 05/11/24 11:17 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date: _____

Batch Notes	
Residual Chlorine Indicator ID	14-860
pH Indicator ID	hc325179
Acid used for pH adjustment	sulfuricacid_00294
Sodium Nitroprusside ID	Na Nitro_00089 Na Salicylate_00106
Hypochlorite ID	Na Hypo_00098
EDTA Buffer ID	Buffer A_00068
Potassium Sodium Tartrate ID	Buffer B_00103
Carrier Identification	Ammonia Rinse_00100
Sodium Salicylate ID	Sodium Sal_00030
Pipette/Syringe/Dispenser ID	mmp 5000, 1000 skalar, bwh 200
Pipette Tip Lot ID	k1952701, m211714k, 1201656h
Dichloroisocyanurate ID	Na Dichloro_00001

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 647507 Batch Start Date: 03/28/24 14:08 Batch Analyst: Castro, Isiah R

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Cl ICV Std 00008	IC CAL cl/so4 00529	IC Cal low 00763	IC ICV 5 00432
STD1 280-647507/1 IC		9056			10 mL	10 mL		0.04 mL	0.04 mL	
STD2 280-647507/2 IC		9056			10 mL	10 mL		0.1 mL	0.1 mL	
STD3 280-647507/3 IC		9056			10 mL	10 mL		0.2 mL	0.2 mL	
STD4 280-647507/4 IC		9056			10 mL	10 mL		2.4 mL	0.8 mL	
STD5 280-647507/5 IC		9056			10 mL	10 mL		4.8 mL	1.6 mL	
STD6 280-647507/6 IC		9056			10 mL	10 mL		8 mL	2 mL	
ICV 280-647507/8		9056			10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-647507/9		9056			10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	IC SO4 ICV 00025					
STD1 280-647507/1 IC		9056								
STD2 280-647507/2 IC		9056								
STD3 280-647507/3 IC		9056								
STD4 280-647507/4 IC		9056								
STD5 280-647507/5 IC		9056								
STD6 280-647507/6 IC		9056								
ICV 280-647507/8		9056			0.8 mL					
ICB 280-647507/9		9056								

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 647507 Batch Start Date: 03/28/24 14:08 Batch Analyst: Castro, Isiah R

Batch Method: 9056 Batch End Date: _____

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 Eluent_00010
Batch Comment	IRC

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190903-1

SDG No.: _____

Batch Number: 651853 Batch Start Date: 05/02/24 12:00 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date: _____

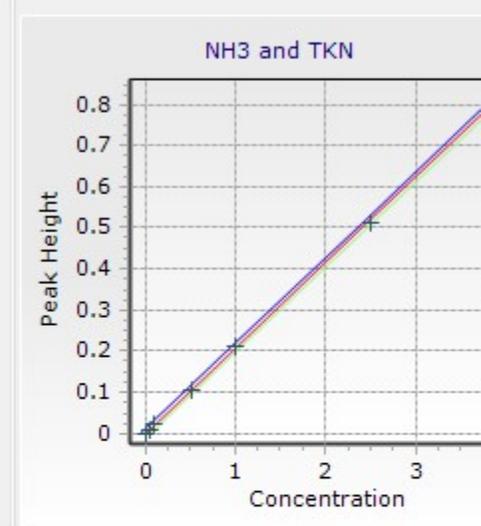
Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	IC CAL c1/so4 00534	IC Cal low 00772	IC LCS 02033	
CCV 280-651853/1		9056			10 mL	10 mL			10 mL	
CCB 280-651853/2		9056			10 mL	10 mL				
MRL 280-651853/3		9056			10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-651853/4		9056			10 mL	10 mL			10 mL	
LCSD 280-651853/5		9056			10 mL	10 mL			10 mL	
MB 280-651853/6		9056			10 mL	10 mL				
280-190903-B-1	LL12mw-185-2404 01-GW	9056	Water	T	10 mL	10 mL				
280-190903-B-3	LL12mw-245-2404 01-GW	9056	Water	T	10 mL	10 mL				
CCV 280-651853/20		9056			10 mL	10 mL			10 mL	
CCB 280-651853/21		9056			10 mL	10 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 ELUENT_00010
Batch Comment	EJS

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.000	-0.002	-0.005	<input checked="" type="checkbox"/>		
2	6	ST2	S2	0.05	0.050	0.009	0.050	<input checked="" type="checkbox"/>	-0.17%	-0.15%
3	7	ST3	S3	0.1	0.100	0.022	0.108	<input checked="" type="checkbox"/>	7.79%	8.04%
4	8	ST4	S4	0.5	0.500	0.104	0.506	<input checked="" type="checkbox"/>	1.21%	1.21%
5	9	ST5	S5	1	1.000	0.209	1.008	<input checked="" type="checkbox"/>	0.82%	0.82%
6	10	ST6	S6	2.5	2.500	0.589	2.832	<input type="checkbox"/>		
7	11	ST7	S7	4	4.000	0.899	4.321	<input type="checkbox"/>		
8	20	ST6	S6	2.5	2.500	0.512	2.461	<input checked="" type="checkbox"/>	-1.58%	-1.56%
9	21	ST7	S7	4	4.000	0.837	4.021	<input checked="" type="checkbox"/>	0.53%	0.53%



Method Name	Ammonia	a	-0.00100620	R Squared	0.99984607
Module Name	NH3 and TKN	b	0.20833881	Constant Sx0	0.02077982
Calibration Order	I Order ISO 8466	c		Constant Vx0	1.78476983
Residual Std. Dev. (Sy)	0.00432924293529	d			
		Correlation Coefficient	0.99992303		

Calibration Order: I Order ISO 8466

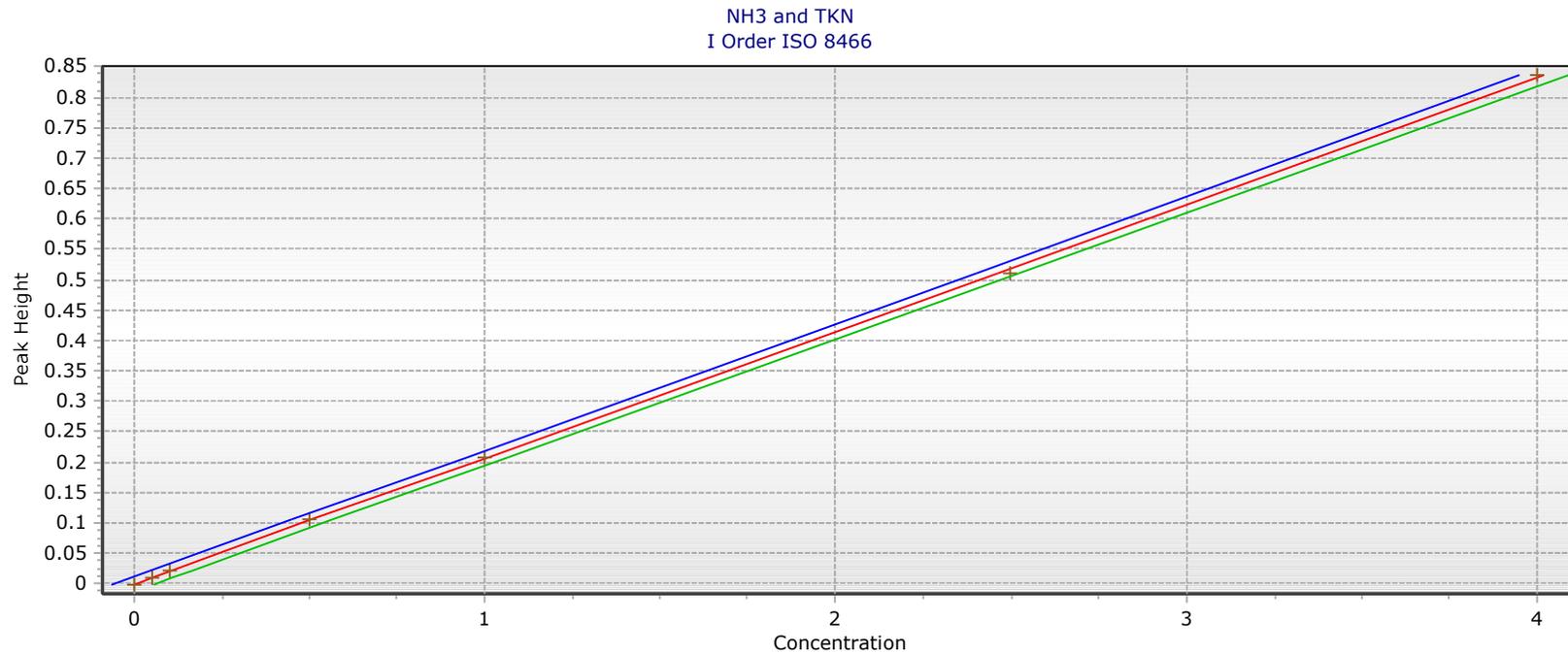
Save Close



4

FlowAccessV3

Date: May 11 2024 6:18:32PM



$a = -0.00100620068337$ $b = 0.20833880704139$ $RSD = 0.00432924293529$

$r = 0.99992303118460$ $R^2 = 0.99984606829339$

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
1	IW	IW	InitialWash		1.0000	0.005
2	ST7	T	Tracer		1.0000	4.308
3	WT	WI	WashIgnore		1.0000	0.054
4	ST5	D	Drift		1.0000	1.092
5	WT	W	Wash		1.0000	0.005
6	ST1	S1	0 mg/L		1.0000	-0.005
7	ST2	S2	0.05		1.0000	0.050
8	ST3	S3	0.1		1.0000	0.108
9	ST4	S4	0.5		1.0000	0.506
10	ST5	S5	1.0		1.0000	1.008
11	ST6	S6	2.5		1.0000	2.832
12	ST7	S7	4.0		1.0000	4.321
13	WT	WI	WashIgnore		1.0000	0.016
14	ST5	D	Drift		1.0000	1.090
15	WT	W	Wash		1.0000	0.005
16	ST8	U	ICV		1.0000	2.646
17	ST9	U	ICVL		1.0000	0.546
18	ST1	U	ICB		1.0000	-0.006
19	D23	U	MB 280-653059/1-A	Start filtered bat	1.0000	-0.002
20	D22	U	LCS 280-653059/2-A		1.0000	2.406
21	ST6	S6	2.5		1.0000	2.461
22	ST7	S7	4.0		1.0000	4.021
23	WT	WI	WashIgnore		1.0000	0.014
24	A1	U	280-190845-E-1-A		1.0000	0.325
25	A2	U	280-190845-E-1-B MS		1.0000	1.404
26	A3	U	280-190845-E-1-C MS		1.0000	1.422
27	A4	U	280-190845-E-2-A		1.0000	0.056
28	A5	U	280-190845-E-3-A		1.0000	0.489
29	A6	U	280-190845-E-4-A		1.0000	0.067
30	A7	U	280-190845-E-5-A		1.0000	0.343
31	A8	U	280-190845-E-6-B		1.0000	0.173
32	A9	U	280-190845-E-7-A		1.0000	0.350
33	A10	U	280-190845-E-8-A		1.0000	0.108
34	A11	U	280-190845-E-9-A		1.0000	-0.011
35	A12	U	280-190845-E-10-A		1.0000	-0.018
36	WT	WI	WashIgnore		1.0000	-0.015
37	ST6	U	CCV		1.0000	2.641
38	WT	WI	WashIgnore		1.0000	0.003
39	ST4	U	CCVL		1.0000	0.538
40	ST1	U	CCB		1.0000	0.000

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
41	A13	U	280-190845-E-11-A		1.0000	0.265
42	A14	U	280-190845-E-11-B M		1.0000	1.358
43	A15	U	280-190845-E-11-C M		1.0000	1.361
44	A16	U	D280-190845-E-12-A		1.0000	-0.001
45	A17	U	280-190847-L-1-B		200.0000	602.178
46	A18	U	280-190904-E-1-A		1.0000	0.378
47	A19	U	280-190904-E-2-A		1.0000	-0.007
48	A20	U	280-190904-E-3-A		1.0000	-0.009
49	A21	U	280-190904-E-4-A		1.0000	-0.012
50	A22	U	280-190974-E-1-A		1.0000	-0.013
51	A23	U	280-190974-E-2-A		1.0000	0.217
52	A24	U	280-190974-E-3-A		1.0000	0.001
53	WT	WI	WashIgnore		1.0000	-0.011
54	ST6	U	CCV		1.0000	2.463
55	WT	WI	WashIgnore		1.0000	0.012
56	ST4	U	CCVL		1.0000	0.543
57	ST1	U	CCB		1.0000	0.010
58	ST5	D	Drift		1.0000	1.105
59	WT	W	Wash		1.0000	0.005
60	D23	U	MB 280-653059/27-A		1.0000	0.019
61	D22	U	LCS 280-653059/28-A		1.0000	2.410
62	WT	WI	WashIgnore		1.0000	0.012
63	A25	U	280-190974-E-4-A		1.0000	0.100
64	A26	U	280-190974-E-4-B MS		1.0000	0.951
65	A27	U	280-190974-e-4-c MS		1.0000	0.962
66	A28	U	SD280-190974-E-5-A		1.0000	0.242
67	A29	U	280-190974-E-6-A		1.0000	-0.012
68	A30	U	280-190974-E-7-A		1.0000	0.331
69	A31	U	280-190974-E-8-A	End filtered batc	1.0000	0.186
70	WT	WI	WashIgnore		1.0000	-0.013
71	ST6	U	CCV		1.0000	2.469
72	WT	WI	WashIgnore		1.0000	0.010
73	ST4	U	CCVL		1.0000	0.535
74	ST1	U	CCB		1.0000	-0.005
75	ST5	D	Drift		1.0000	1.097
76	WT	W	Wash		1.0000	0.005
77	ST1	U	MB		1.0000	-0.005
78	D29	U	LCS		1.0000	2.465
79	D30	U	LCSD		1.0000	2.545
80	WT	WI	WashIgnore		1.0000	-0.004

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
81	A32	U	280-190988-a-1		1.0000	0.050
82	A33	U	280-190988-a-1 MS		1.0000	1.034
83	A34	U	280-190988-a-1 MSD		1.0000	1.087
84	A35	U	280-190604-a-4		1.0000	-0.004
85	B1	U	280-190701-a-22		1.0000	-0.016
86	B2	U	590-24616-d-1		1.0000	2.632
87	B3	U	590-24617-d-1		1.0000	2.066
88	B4	U	590-24618-d-1		1.0000	0.035
89	B5	U	590-24619-e-1		1.0000	2.187
90	B6	U	280-190901-j-1		100.0000	878.647
91	B7	U	280-190903-a-1		1.0000	0.133
92	B8	U	280-190903-a-3		1.0000	0.089
93	WT	WI	WashIgnore		1.0000	0.002
94	ST6	U	CCV		1.0000	2.463
95	WT	WI	WashIgnore		1.0000	0.012
96	ST4	U	CCVL		1.0000	0.522
97	ST1	U	CCB		1.0000	0.007
98	B9	U	280-190796-a-5		1.0000	0.199
99	B10	U	280-190796-a-5 MS		1.0000	1.302
100	B11	U	280-190796-a-5 MSD		1.0000	1.314
101	B12	U	280-190976-f-1		1.0000	15.447
102	B13	U	280-190976-e-2		10.0000	112.074
103	B14	U	280-190988-a-2		1.0000	0.258
104	B15	U	280-190988-a-3		1.0000	0.075
105	B16	U	280-190988-a-5		1.0000	0.296
106	B17	U	280-190796-a-12		1.0000	0.003
107	B18	U	280-190796-a-19		1.0000	0.517
108	B19	U	280-190571-a-3		1.0000	0.000
109	B20	U	280-190877-a-5		1.0000	0.409
110	WT	WI	WashIgnore		1.0000	0.008
111	ST6	U	CCV		1.0000	2.491
112	WT	WI	WashIgnore		1.0000	-0.001
113	ST4	U	CCVL		1.0000	0.531
114	ST1	U	CCB		1.0000	0.017
115	ST5	D	Drift		1.0000	1.122
116	WT	W	Wash		1.0000	0.005
117	B6	U	280-190901-j-1		250.0000	917.282
118	B7	U	280-190903-a-1		1.0000	0.089
119	B12	U	280-190976-f-1		50.0000	109.026
120	B13	U	280-190976-e-2		50.0000	122.992

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
121	B14	U	280-190988-a-2		1.0000	0.032
122	ST1	U	MB		1.0000	0.007
123	D29	U	LCS		1.0000	2.480
124	D30	U	LCSD		1.0000	2.610
125	WT	WI	WashIgnore		1.0000	0.017
126	B21	U	280-190838-c-1		1.0000	0.062
127	B22	U	280-190838-c-1 MS		1.0000	1.119
128	B23	U	280-190838-c-1 MSD		1.0000	1.158
129	B24	U	280-190879-a-5		1.0000	0.007
130	B25	U	280-190879-a-12		1.0000	0.085
131	B26	U	280-190879-a-19		1.0000	0.006
132	B27	U	280-191069-d-2		1.0000	0.021
133	WT	WI	WashIgnore		1.0000	-0.007
134	ST6	U	CCV		1.0000	2.436
135	WT	WI	WashIgnore		1.0000	0.018
136	ST4	U	CCVL		1.0000	0.526
137	ST1	U	CCB		1.0000	0.008
138	B28	U	580-139681-a-8		1.0000	0.491
139	B29	U	590-24654-a-1		1.0000	-0.010
140	B30	U	280-191285-b-4		1.0000	1.793
141	B31	U	590-24652-c-1		1.0000	0.020
142	B32	U	590-24652-c-2		1.0000	-0.003
143	B33	U	280-190838-b-2		1.0000	0.314
144	B34	U	280-190838-b-2 MS		1.0000	1.413
145	B35	U	280-190838-b-2 MSD		1.0000	1.447
146	C1	U	590-24653-b-1		1.0000	0.739
147	C2	U	590-24654-a-2		1.0000	-0.002
148	C3	U	590-24652-c-3		1.0000	-0.014
149	C4	U	590-24652-c-4		1.0000	-0.017
150	WT	WI	WashIgnore		1.0000	-0.014
151	ST6	U	CCV		1.0000	2.486
152	WT	WI	WashIgnore		1.0000	0.013
153	ST4	U	CCVL		1.0000	0.524
154	ST1	U	CCB		1.0000	0.002
155	ST5	D	Drift		1.0000	1.095
156	WT	W	Wash		1.0000	0.005
157	C5	U	590-24652-c-5		1.0000	-0.010
158	C6	U	280-190838-b-3		1.0000	0.015
159	C7	U	280-190838-b-4		1.0000	-0.012
160	C8	U	280-190981-b-2		1.0000	15.718

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
161	C9	U	280-190982-a-2		1.0000	1.845
162	ST1	U	MB		1.0000	0.077
163	D29	U	LCS		1.0000	2.545
164	D30	U	LCSD		1.0000	2.644
165	WT	WI	WashIgnore		1.0000	0.010
166	C10	U	280-190982-a-3		1.0000	0.285
167	C11	U	280-190982-a-3 MS		1.0000	1.350
168	C12	U	280-190982-a-3 MSD		1.0000	1.409
169	WT	WI	WashIgnore		1.0000	-0.002
170	ST1	U	MB		1.0000	0.004
171	D29	U	LCS		1.0000	2.513
172	C13	U	280-190933-b-8		1.0000	0.051
173	C14	U	280-190981-b-3		1.0000	6.603
174	C15	U	280-190982-a-4		1.0000	0.750
175	C16	U	280-191106-f-1		50.0000	87.485
176	WT	WI	WashIgnore		1.0000	0.002
177	ST6	U	CCV		1.0000	2.578
178	WT	WI	WashIgnore		1.0000	0.008
179	ST4	U	CCVL		1.0000	0.548
180	ST1	U	CCB		1.0000	0.007
181	C17	U	280-190933-b-1		1.0000	-0.011
182	C18	U	280-190933-b-2		1.0000	-0.011
183	C19	U	280-190933-b-3		1.0000	0.090
184	C20	U	280-190933-b-4		1.0000	0.253
185	C21	U	280-190933-b-6		1.0000	13.734
186	WT	WI	WashIgnore		1.0000	0.104
187	ST6	U	CCV		1.0000	2.725
188	WT	WI	WashIgnore		1.0000	0.011
189	ST4	U	CCVL		1.0000	0.572
190	ST1	U	CCB		1.0000	0.001
191	ST5	D	Drift		1.0000	1.095
192	WT	W	Wash		1.0000	0.005
193	E	E	EndRun		1.0000	0.005

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
1	0.0000	May 11 2024 11:17:00AM	0.005
2	0.8966	May 11 2024 11:19:00AM	4.308
3	0.0103	May 11 2024 11:22:00AM	0.054
4	0.2265	May 11 2024 11:24:00AM	1.092
5	0.0000	May 11 2024 11:26:00AM	0.005
6	-0.0020	May 11 2024 11:29:00AM	-0.005
7	0.0094	May 11 2024 11:31:00AM	0.050
8	0.0215	May 11 2024 11:33:00AM	0.108
9	0.1044	May 11 2024 11:35:00AM	0.506
10	0.2090	May 11 2024 11:37:00AM	1.008
11	0.5890	May 11 2024 11:39:00AM	2.832
12	0.8991	May 11 2024 11:41:00AM	4.321
13	0.0024	May 11 2024 11:44:00AM	0.016
14	0.2261	May 11 2024 11:46:00AM	1.090
15	0.0000	May 11 2024 11:48:00AM	0.005
16	0.5502	May 11 2024 11:50:00AM	2.646
17	0.1128	May 11 2024 11:52:00AM	0.546
18	-0.0022	May 11 2024 11:54:00AM	-0.006
19	-0.0014	May 11 2024 11:57:00AM	-0.002
20	0.5003	May 11 2024 11:58:00AM	2.406
21	0.5117	May 11 2024 12:01:00PM	2.461
22	0.8368	May 11 2024 12:03:00PM	4.021
23	0.0020	May 11 2024 12:05:00PM	0.014
24	0.0668	May 11 2024 12:07:00PM	0.325
25	0.2916	May 11 2024 12:10:00PM	1.404
26	0.2952	May 11 2024 12:12:00PM	1.422
27	0.0106	May 11 2024 12:14:00PM	0.056
28	0.1008	May 11 2024 12:16:00PM	0.489
29	0.0130	May 11 2024 12:18:00PM	0.067
30	0.0704	May 11 2024 12:20:00PM	0.343
31	0.0349	May 11 2024 12:23:00PM	0.173
32	0.0719	May 11 2024 12:25:00PM	0.350
33	0.0214	May 11 2024 12:27:00PM	0.108
34	-0.0032	May 11 2024 12:29:00PM	-0.011
35	-0.0048	May 11 2024 12:31:00PM	-0.018
36	-0.0040	May 11 2024 12:33:00PM	-0.015
37	0.5491	May 11 2024 12:36:00PM	2.641
38	-0.0004	May 11 2024 12:38:00PM	0.003
39	0.1111	May 11 2024 12:40:00PM	0.538
40	-0.0010	May 11 2024 12:42:00PM	0.000

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
41	0.0542	May 11 2024 12:44:00PM	0.265
42	0.2820	May 11 2024 12:46:00PM	1.358
43	0.2825	May 11 2024 12:49:00PM	1.361
44	-0.0011	May 11 2024 12:51:00PM	-0.001
45	0.6263	May 11 2024 12:53:00PM	3.011
46	0.0777	May 11 2024 12:55:00PM	0.378
47	-0.0024	May 11 2024 12:57:00PM	-0.007
48	-0.0029	May 11 2024 12:59:00PM	-0.009
49	-0.0034	May 11 2024 1:02:00PM	-0.012
50	-0.0038	May 11 2024 1:04:00PM	-0.013
51	0.0442	May 11 2024 1:06:00PM	0.217
52	-0.0008	May 11 2024 1:08:00PM	0.001
53	-0.0033	May 11 2024 1:10:00PM	-0.011
54	0.5122	May 11 2024 1:12:00PM	2.463
55	0.0016	May 11 2024 1:15:00PM	0.012
56	0.1121	May 11 2024 1:17:00PM	0.543
57	0.0010	May 11 2024 1:19:00PM	0.010
58	0.2292	May 11 2024 1:21:00PM	1.105
59	0.0000	May 11 2024 1:23:00PM	0.005
60	0.0030	May 11 2024 1:26:00PM	0.019
61	0.5011	May 11 2024 1:28:00PM	2.410
62	0.0014	May 11 2024 1:30:00PM	0.012
63	0.0198	May 11 2024 1:32:00PM	0.100
64	0.1972	May 11 2024 1:34:00PM	0.951
65	0.1995	May 11 2024 1:36:00PM	0.962
66	0.0494	May 11 2024 1:38:00PM	0.242
67	-0.0035	May 11 2024 1:41:00PM	-0.012
68	0.0680	May 11 2024 1:43:00PM	0.331
69	0.0378	May 11 2024 1:45:00PM	0.186
70	-0.0037	May 11 2024 1:47:00PM	-0.013
71	0.5134	May 11 2024 1:49:00PM	2.469
72	0.0011	May 11 2024 1:52:00PM	0.010
73	0.1106	May 11 2024 1:54:00PM	0.535
74	-0.0020	May 11 2024 1:56:00PM	-0.005
75	0.2276	May 11 2024 1:58:00PM	1.097
76	0.0000	May 11 2024 2:00:00PM	0.005
77	-0.0021	May 11 2024 2:03:00PM	-0.005
78	0.5126	May 11 2024 2:04:00PM	2.465
79	0.5292	May 11 2024 2:07:00PM	2.545
80	-0.0018	May 11 2024 2:09:00PM	-0.004

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
81	0.0095	May 11 2024 2:11:00PM	0.050
82	0.2145	May 11 2024 2:13:00PM	1.034
83	0.2254	May 11 2024 2:15:00PM	1.087
84	-0.0018	May 11 2024 2:18:00PM	-0.004
85	-0.0044	May 11 2024 2:20:00PM	-0.016
86	0.5474	May 11 2024 2:22:00PM	2.632
87	0.4294	May 11 2024 2:24:00PM	2.066
88	0.0063	May 11 2024 2:26:00PM	0.035
89	0.4547	May 11 2024 2:28:00PM	2.187
90	1.8296	May 11 2024 2:31:00PM	8.786
91	0.0267	May 11 2024 2:33:00PM	0.133
92	0.0176	May 11 2024 2:35:00PM	0.089
93	-0.0005	May 11 2024 2:37:00PM	0.002
94	0.5121	May 11 2024 2:39:00PM	2.463
95	0.0015	May 11 2024 2:41:00PM	0.012
96	0.1078	May 11 2024 2:44:00PM	0.522
97	0.0005	May 11 2024 2:46:00PM	0.007
98	0.0404	May 11 2024 2:48:00PM	0.199
99	0.2703	May 11 2024 2:50:00PM	1.302
100	0.2728	May 11 2024 2:52:00PM	1.314
101	3.2173	May 11 2024 2:54:00PM	15.447
102	2.3339	May 11 2024 2:57:00PM	11.207
103	0.0528	May 11 2024 2:59:00PM	0.258
104	0.0146	May 11 2024 3:01:00PM	0.075
105	0.0607	May 11 2024 3:03:00PM	0.296
106	-0.0004	May 11 2024 3:05:00PM	0.003
107	0.1067	May 11 2024 3:07:00PM	0.517
108	-0.0010	May 11 2024 3:10:00PM	0.000
109	0.0842	May 11 2024 3:12:00PM	0.409
110	0.0006	May 11 2024 3:14:00PM	0.008
111	0.5181	May 11 2024 3:16:00PM	2.491
112	-0.0013	May 11 2024 3:18:00PM	-0.001
113	0.1095	May 11 2024 3:20:00PM	0.531
114	0.0026	May 11 2024 3:22:00PM	0.017
115	0.2328	May 11 2024 3:25:00PM	1.122
116	0.0000	May 11 2024 3:27:00PM	0.005
117	0.7634	May 11 2024 3:29:00PM	3.669
118	0.0176	May 11 2024 3:31:00PM	0.089
119	0.4533	May 11 2024 3:33:00PM	2.181
120	0.5115	May 11 2024 3:36:00PM	2.460

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
121	0.0056	May 11 2024 3:38:00PM	0.032
122	0.0005	May 11 2024 3:40:00PM	0.007
123	0.5156	May 11 2024 3:42:00PM	2.480
124	0.5428	May 11 2024 3:44:00PM	2.610
125	0.0024	May 11 2024 3:46:00PM	0.017
126	0.0120	May 11 2024 3:49:00PM	0.062
127	0.2321	May 11 2024 3:51:00PM	1.119
128	0.2403	May 11 2024 3:53:00PM	1.158
129	0.0004	May 11 2024 3:55:00PM	0.007
130	0.0167	May 11 2024 3:57:00PM	0.085
131	0.0001	May 11 2024 3:59:00PM	0.006
132	0.0034	May 11 2024 4:02:00PM	0.021
133	-0.0025	May 11 2024 4:04:00PM	-0.007
134	0.5065	May 11 2024 4:06:00PM	2.436
135	0.0027	May 11 2024 4:08:00PM	0.018
136	0.1085	May 11 2024 4:10:00PM	0.526
137	0.0007	May 11 2024 4:13:00PM	0.008
138	0.1014	May 11 2024 4:15:00PM	0.491
139	-0.0031	May 11 2024 4:17:00PM	-0.010
140	0.3726	May 11 2024 4:19:00PM	1.793
141	0.0031	May 11 2024 4:21:00PM	0.020
142	-0.0017	May 11 2024 4:23:00PM	-0.003
143	0.0645	May 11 2024 4:25:00PM	0.314
144	0.2933	May 11 2024 4:27:00PM	1.413
145	0.3005	May 11 2024 4:30:00PM	1.447
146	0.1530	May 11 2024 4:32:00PM	0.739
147	-0.0014	May 11 2024 4:34:00PM	-0.002
148	-0.0039	May 11 2024 4:36:00PM	-0.014
149	-0.0045	May 11 2024 4:38:00PM	-0.017
150	-0.0039	May 11 2024 4:40:00PM	-0.014
151	0.5170	May 11 2024 4:43:00PM	2.486
152	0.0016	May 11 2024 4:45:00PM	0.013
153	0.1081	May 11 2024 4:47:00PM	0.524
154	-0.0007	May 11 2024 4:49:00PM	0.002
155	0.2271	May 11 2024 4:51:00PM	1.095
156	0.0000	May 11 2024 4:53:00PM	0.005
157	-0.0031	May 11 2024 4:56:00PM	-0.010
158	0.0021	May 11 2024 4:58:00PM	0.015
159	-0.0035	May 11 2024 5:00:00PM	-0.012
160	3.2736	May 11 2024 5:02:00PM	15.718

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

DateTime :May 11 2024 11:07:13AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
161	0.3834	May 11 2024 5:05:00PM	1.845
162	0.0150	May 11 2024 5:07:00PM	0.077
163	0.5291	May 11 2024 5:09:00PM	2.545
164	0.5499	May 11 2024 5:11:00PM	2.644
165	0.0012	May 11 2024 5:13:00PM	0.010
166	0.0584	May 11 2024 5:15:00PM	0.285
167	0.2802	May 11 2024 5:17:00PM	1.350
168	0.2925	May 11 2024 5:19:00PM	1.409
169	-0.0013	May 11 2024 5:22:00PM	-0.002
170	-0.0002	May 11 2024 5:24:00PM	0.004
171	0.5226	May 11 2024 5:26:00PM	2.513
172	0.0096	May 11 2024 5:28:00PM	0.051
173	1.3746	May 11 2024 5:30:00PM	6.603
174	0.1552	May 11 2024 5:32:00PM	0.750
175	0.3635	May 11 2024 5:35:00PM	1.750
176	-0.0006	May 11 2024 5:37:00PM	0.002
177	0.5362	May 11 2024 5:39:00PM	2.578
178	0.0006	May 11 2024 5:41:00PM	0.008
179	0.1132	May 11 2024 5:43:00PM	0.548
180	0.0004	May 11 2024 5:46:00PM	0.007
181	-0.0034	May 11 2024 5:48:00PM	-0.011
182	-0.0034	May 11 2024 5:50:00PM	-0.011
183	0.0178	May 11 2024 5:52:00PM	0.090
184	0.0517	May 11 2024 5:54:00PM	0.253
185	2.8602	May 11 2024 5:56:00PM	13.734
186	0.0206	May 11 2024 5:59:00PM	0.104
187	0.5667	May 11 2024 6:01:00PM	2.725
188	0.0012	May 11 2024 6:03:00PM	0.011
189	0.1181	May 11 2024 6:05:00PM	0.572
190	-0.0009	May 11 2024 6:07:00PM	0.001
191	0.2271	May 11 2024 6:09:00PM	1.095
192	0.0000	May 11 2024 6:12:00PM	0.005
193	0.0000	May 11 2024 6:14:00PM	0.005

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-14
 Lims ID: STD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 28-Mar-2024 14:08:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD1
 Misc. Info.: STD1
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 11:59:56 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:31:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.137	3.150	-0.013	4699749	NC	NC	Ma
2 Chloride	4.403	4.438	-0.035	14672595	NC	NC	
3 Nitrite as N	5.185	5.163	0.022	6601371	0.2000	0.2059	
4 Bromide	6.467	6.442	0.025	1016294	NC	NC	M
5 Nitrate as N	7.338	7.252	0.086	6760501	0.2000	0.2217	
6 Orthophosphate as P	9.778	9.743	0.035	392209	0.2000	-1.38	
7 Sulfate	11.057	11.012	0.045	10585009	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 0.04 Units: mL
 IC CAL cl/so4_00529 Amount Added: 0.04 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-142459.d

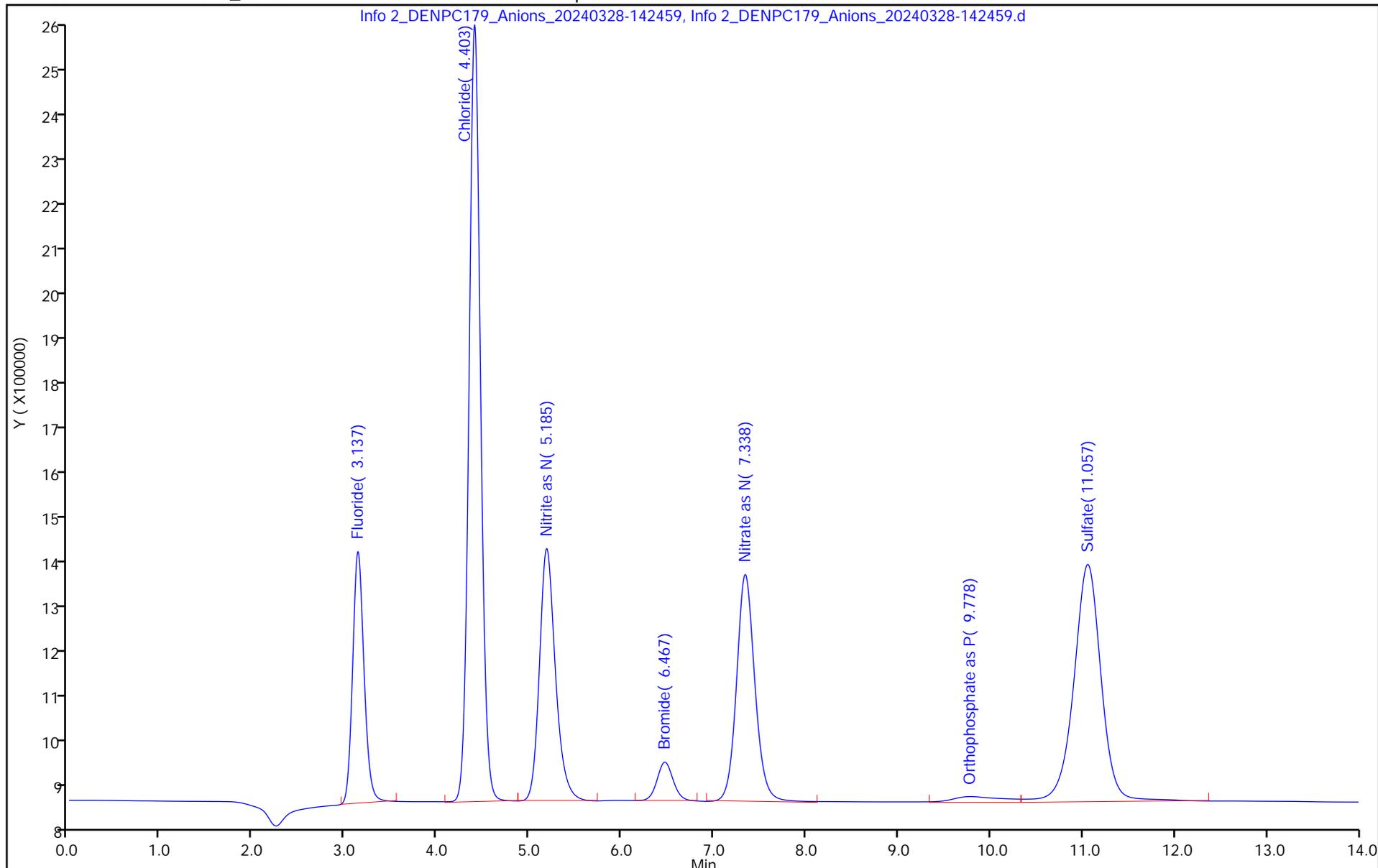
Injection Date: 28-Mar-2024 14:08:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD1 Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-14
 Lims ID: STD2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-Mar-2024 14:25:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD2
 Misc. Info.: STD2
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 11:59:56 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:31:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.138	3.150	-0.012	13390241	NC	NC	Ma
2 Chloride	4.402	4.438	-0.036	41244502	NC	NC	
3 Nitrite as N	5.182	5.163	0.019	18412264	0.5000	0.4795	
4 Bromide	6.460	6.442	0.018	2660877	NC	NC	M
5 Nitrate as N	7.318	7.252	0.066	18877628	0.5000	0.4714	
6 Orthophosphate as P	9.790	9.743	0.047	278746	0.5000	3.10	
7 Sulfate	11.057	11.012	0.045	28189980	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 0.10 Units: mL
 IC CAL cl/so4_00529 Amount Added: 0.10 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-144156.d

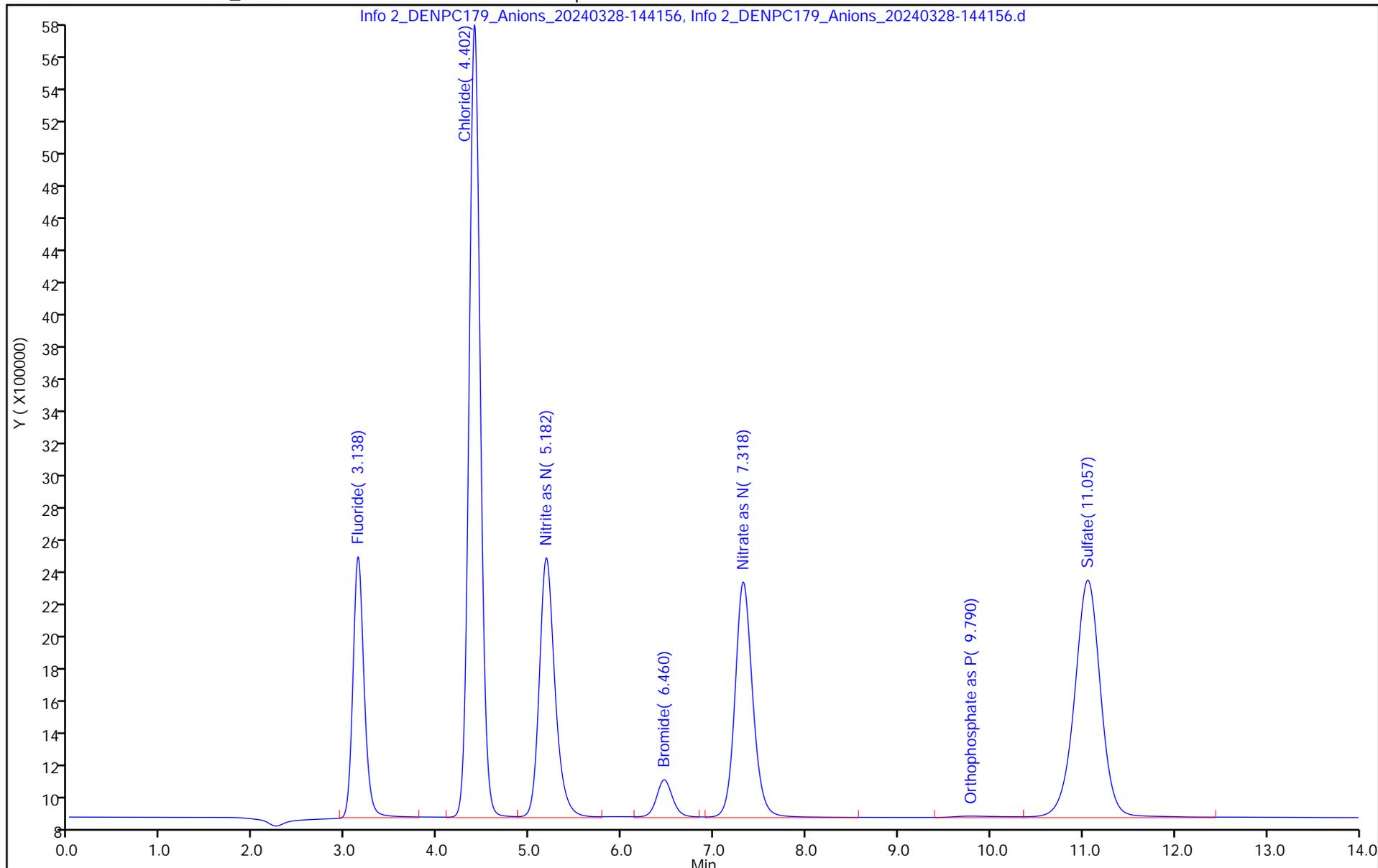
Injection Date: 28-Mar-2024 14:25:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD2 Worklist Smp#: 2

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-14
 Lims ID: STD3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 28-Mar-2024 14:41:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD3
 Misc. Info.: STD3
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 11:59:57 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:31:46

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.138	3.150	-0.012	29360432	NC	NC	Ma
2 Chloride	4.397	4.438	-0.041	88864516	NC	NC	
3 Nitrite as N	5.173	5.163	0.010	40116892	1.00	0.9824	
4 Bromide	6.448	6.442	0.006	5714752	NC	NC	
5 Nitrate as N	7.292	7.252	0.040	41822035	1.00	0.9444	
6 Orthophosphate as P	9.777	9.743	0.034	257346	1.00	3.95	
7 Sulfate	11.050	11.012	0.038	62015402	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 0.20 Units: mL
 IC CAL cl/so4_00529 Amount Added: 0.20 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-145854.d

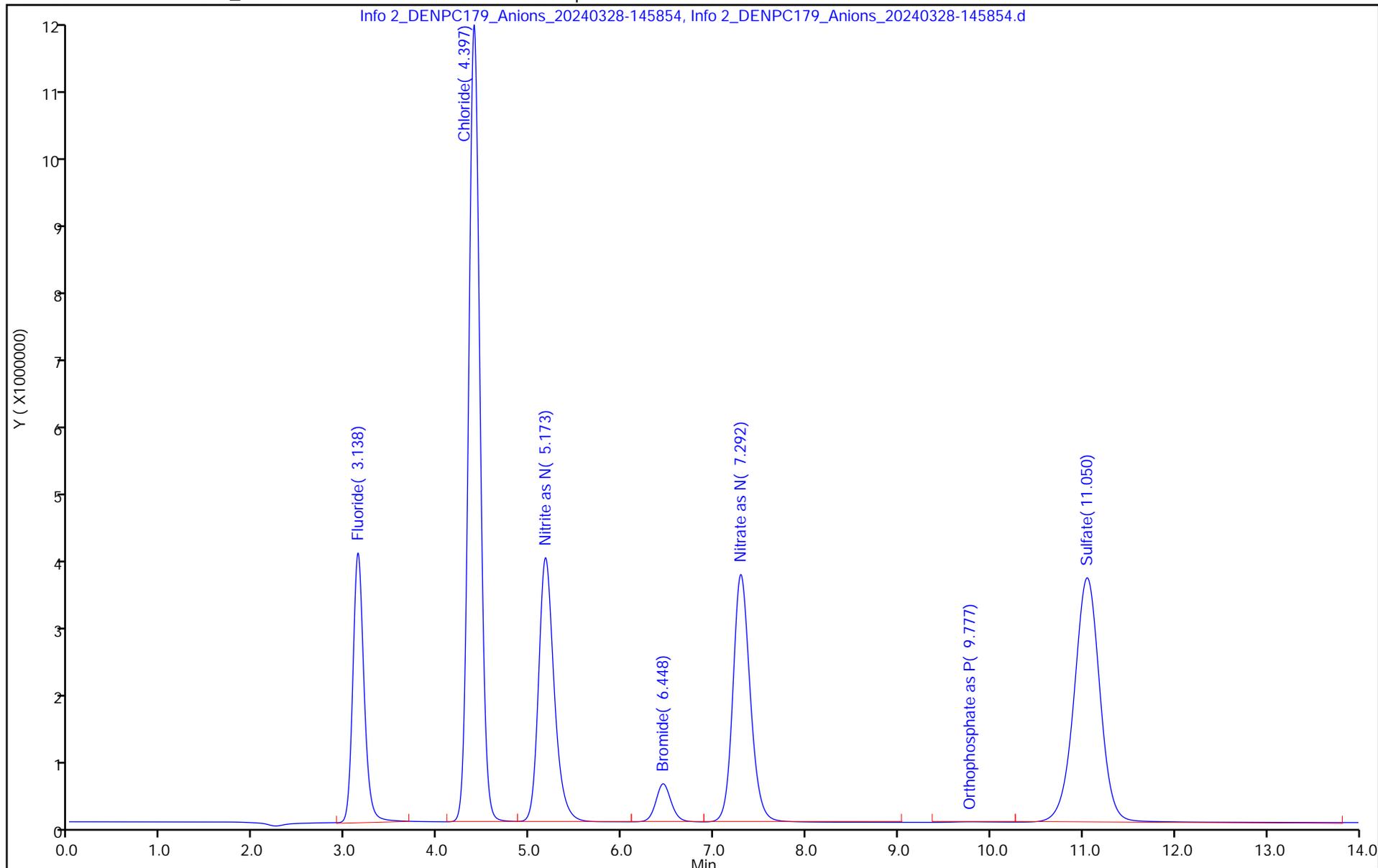
Injection Date: 28-Mar-2024 14:41:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD3 Worklist Smp#: 3

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Lims ID: STD4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-Mar-2024 14:58:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD4
 Misc. Info.: STD4
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 11:59:58 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:32:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.147	3.147	0.000	133092922	NC	NC	Ma
2 Chloride	4.422	4.422	0.000	1128029790	NC	NC	
3 Nitrite as N	5.158	5.158	0.000	177474426	4.00	4.16	
4 Bromide	6.427	6.427	0.000	26917862	NC	NC	
5 Nitrate as N	7.235	7.235	0.000	189388615	4.00	3.99	
6 Orthophosphate as P	9.773	9.773	0.000	224883	4.00	5.23	
7 Sulfate	11.017	11.017	0.000	842816669	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 0.80 Units: mL
 IC CAL cl/so4_00529 Amount Added: 2.40 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-151551.d

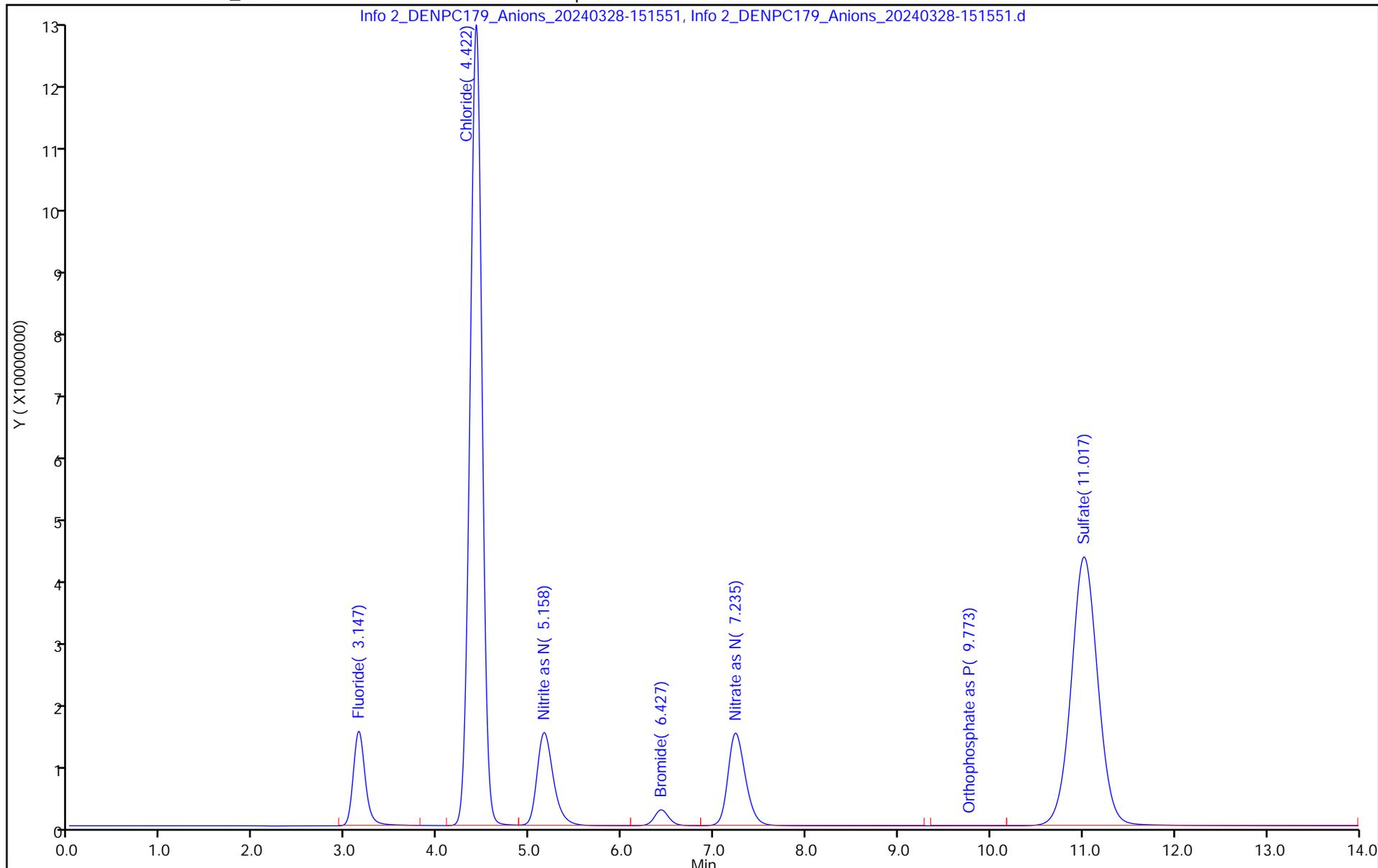
Injection Date: 28-Mar-2024 14:58:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD4 Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Lims ID: STD5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 28-Mar-2024 15:15:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD5
 Misc. Info.: STD5
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 11:59:59 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:32:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.152	3.152	0.000	266139321	NC	NC	Ma
2 Chloride	4.448	4.448	0.000	2252433829	NC	NC	
3 Nitrite as N	5.147	5.147	0.000	344823678	8.00	8.04	
4 Bromide	6.415	6.415	0.000	57480226	NC	NC	
5 Nitrate as N	7.205	7.205	0.000	384697207	8.00	8.01	
6 Orthophosphate as P	9.743	9.743	0.000	212844	8.00	5.70	
7 Sulfate	10.975	10.975	0.000	1689265498	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 1.60 Units: mL
 IC CAL cl/so4_00529 Amount Added: 4.80 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-153250.d

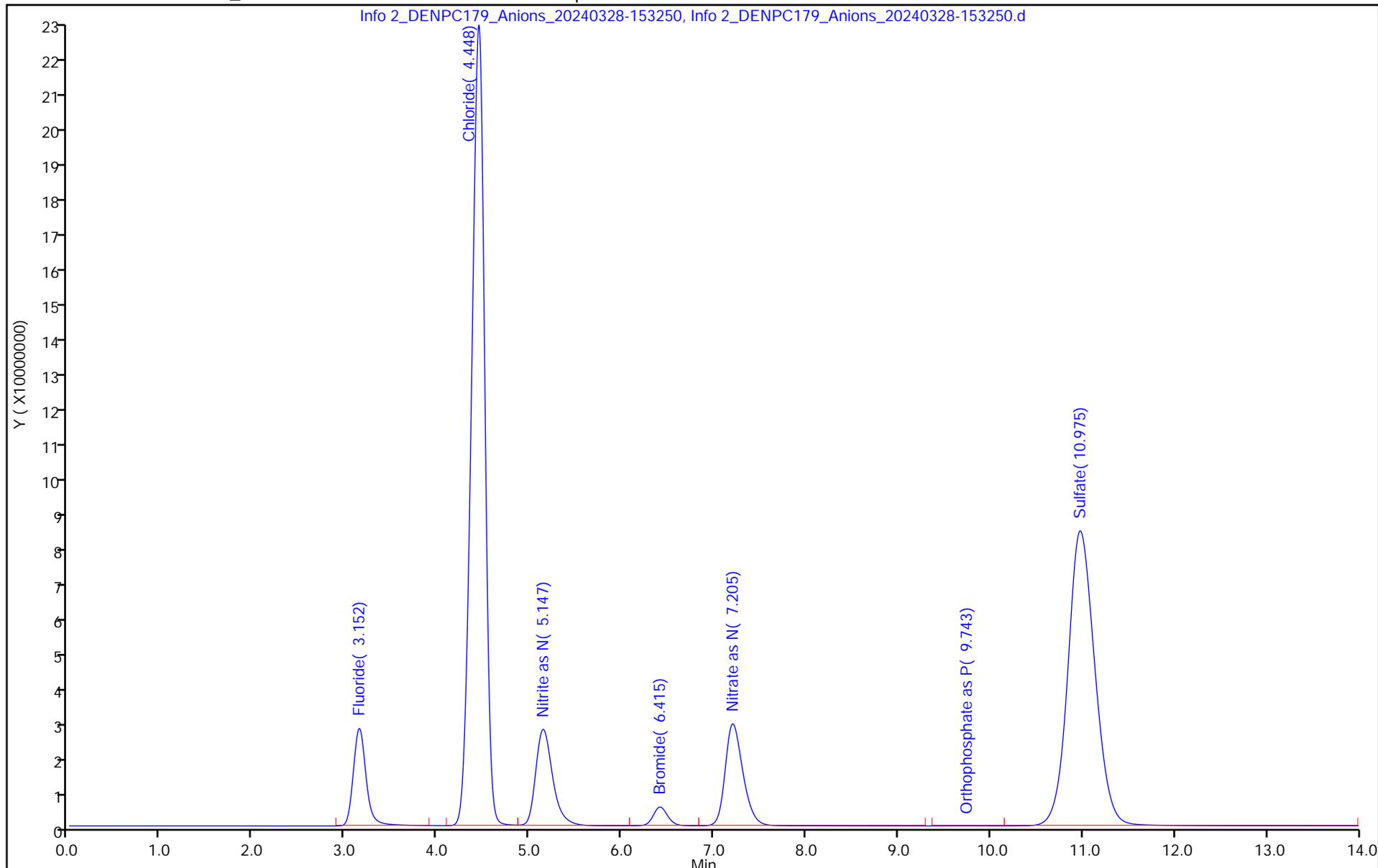
Injection Date: 28-Mar-2024 15:15:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD5 Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Lims ID: STD6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-Mar-2024 15:32:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: STD6
 Misc. Info.: STD6
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 12:00:00 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 11:32:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.153	3.152	0.001	339820227	NC	NC	Ma
2 Chloride	4.487	4.448	0.039	3736088957	NC	NC	
3 Nitrite as N	5.148	5.147	0.001	421839484	10.0	9.83	
4 Bromide	6.417	6.415	0.002	73448384	NC	NC	
5 Nitrate as N	7.200	7.205	-0.005	484237293	10.0	10.1	
6 Orthophosphate as P	9.743	9.743	0.000	177459	10.0	7.10	
7 Sulfate	10.933	10.975	-0.042	2803594888	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC Cal low_00763 Amount Added: 2.00 Units: mL
 IC CAL cl/so4_00529 Amount Added: 8.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-154948.d

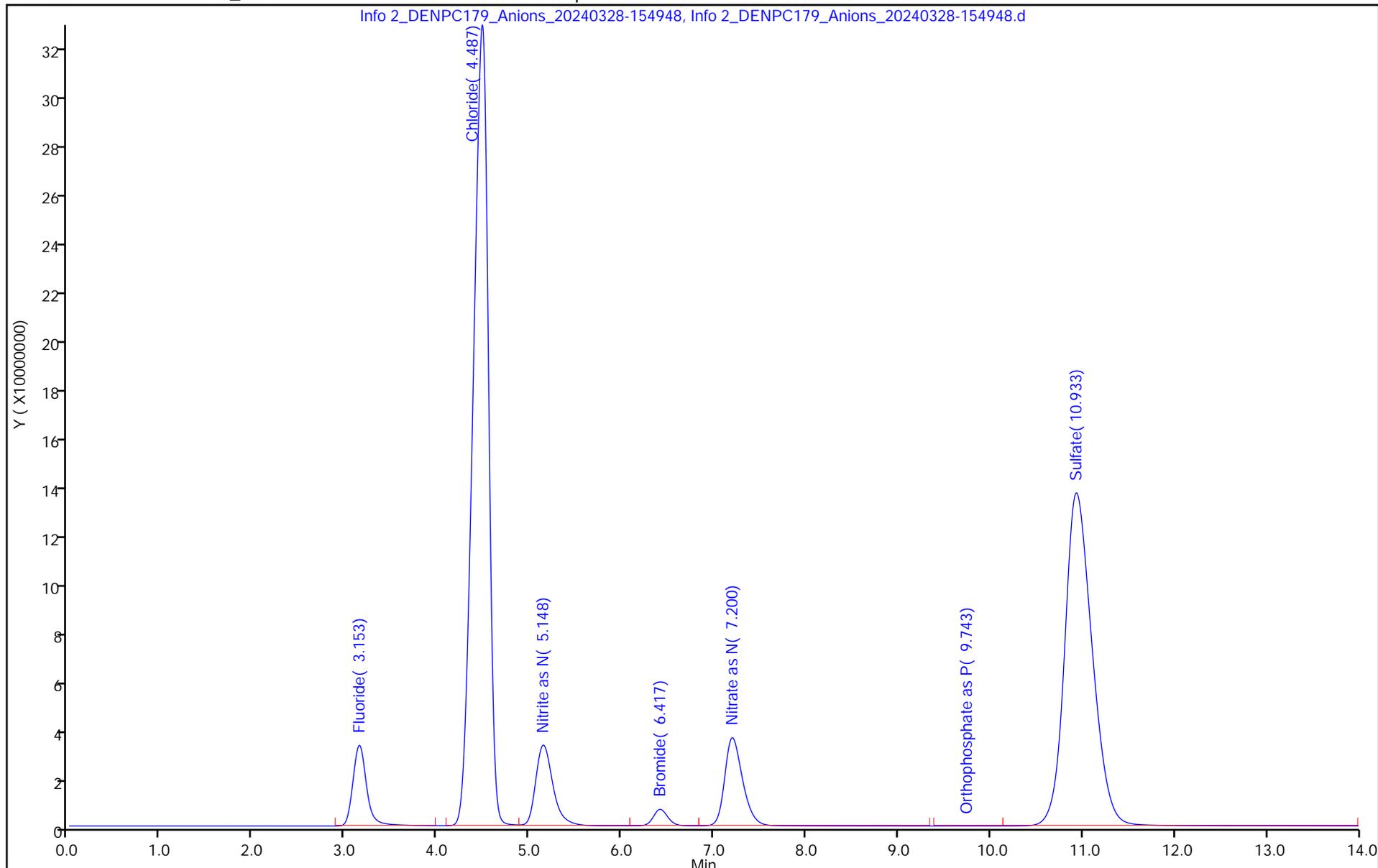
Injection Date: 28-Mar-2024 15:32:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD6 Worklist Smp#: 6

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-16
 Lims ID: icv
 Client ID:
 Sample Type: ICV
 Inject. Date: 28-Mar-2024 16:06:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: ICV
 Misc. Info.: ICV
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 13:58:28 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

First Level Reviewer: R4BB Date: 29-Mar-2024 13:58:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.150	3.150	0.000	152660083	NC	NC	Ma
2 Chloride	4.438	4.438	0.000	1626485100	NC	NC	
3 Nitrite as N	5.163	5.163	0.000	174650980	4.00	4.10	
4 Bromide	6.442	6.442	0.000	29304310	NC	NC	
5 Nitrate as N	7.252	7.252	0.000	188996816	4.00	3.98	
7 Sulfate	11.012	11.012	0.000	1209943295	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC SO4 ICV_00025 Amount Added: 0.80 Units: mL
 CI ICV Std_00008 Amount Added: 0.80 Units: mL
 IC ICV 5_00432 Amount Added: 0.80 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-162346.d

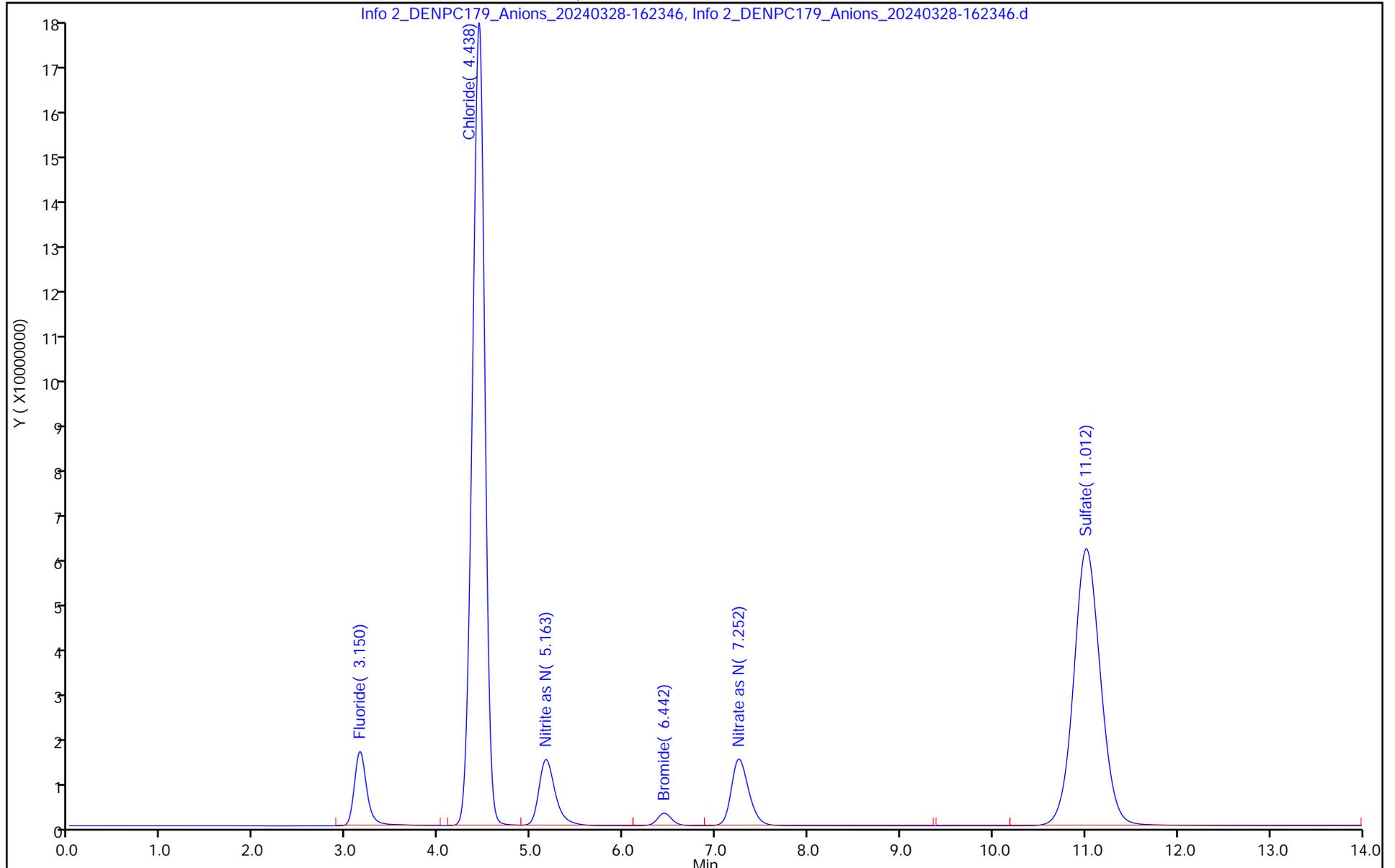
Injection Date: 28-Mar-2024 16:06:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: icv Worklist Smp#: 8

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-16
 Lims ID: icb
 Client ID:
 Sample Type: ICB
 Inject. Date: 28-Mar-2024 16:23:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: ICB
 Misc. Info.: ICB
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 29-Mar-2024 12:02:40 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1638

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.150				ND	
2 Chloride		4.445				ND	
3 Nitrite as N		5.160				ND	
4 Bromide		6.438				ND	
5 Nitrate as N	7.392	7.240	0.152	54738		0.0834	
6 Orthophosphate as P	9.772	9.773	-0.001	206161		5.97	
7 Sulfate	11.123	10.998	0.125	621057		NC	

QC Flag Legend
 Processing Flags
 NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-164046.d

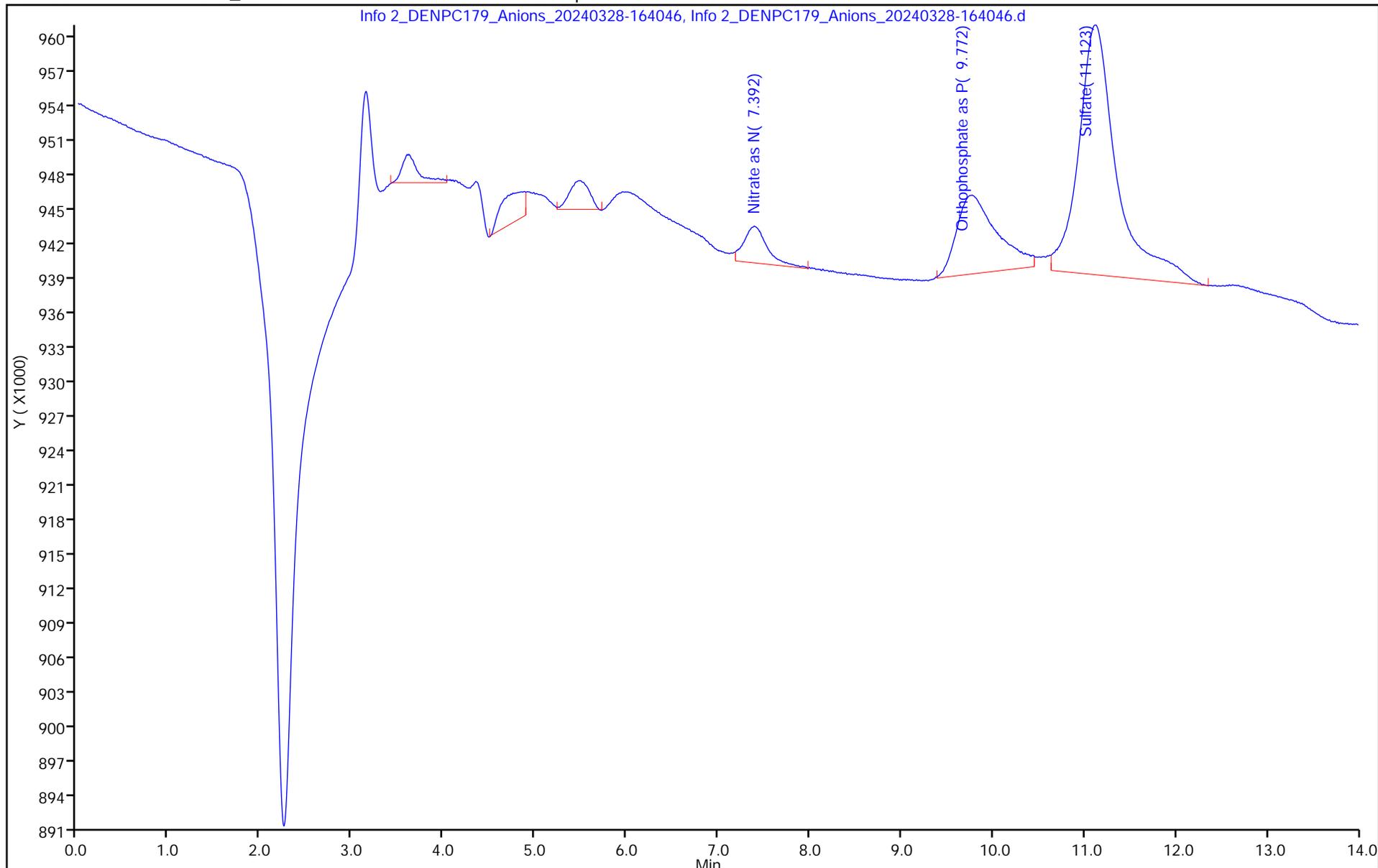
Injection Date: 28-Mar-2024 16:23:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: icb Worklist Smp#: 9

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-12
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-May-2024 12:00:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: CCV
 Misc. Info.: CCV
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub11
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:34 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145			ND	ND	
2 Chloride	4.412	4.412	0.000	1798942596	NC	NC	
3 Nitrite as N	5.100	5.100	0.000	200059463	5.00	4.69	
4 Bromide	6.332	6.332	0.000	32222270	NC	NC	
5 Nitrate as N	7.113	7.113	0.000	223437271	5.00	4.69	
7 Sulfate	10.858	10.858	0.000	1331356330	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

IC LCS_02033

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-121744.d

Injection Date: 02-May-2024 12:00:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 1

Client ID:

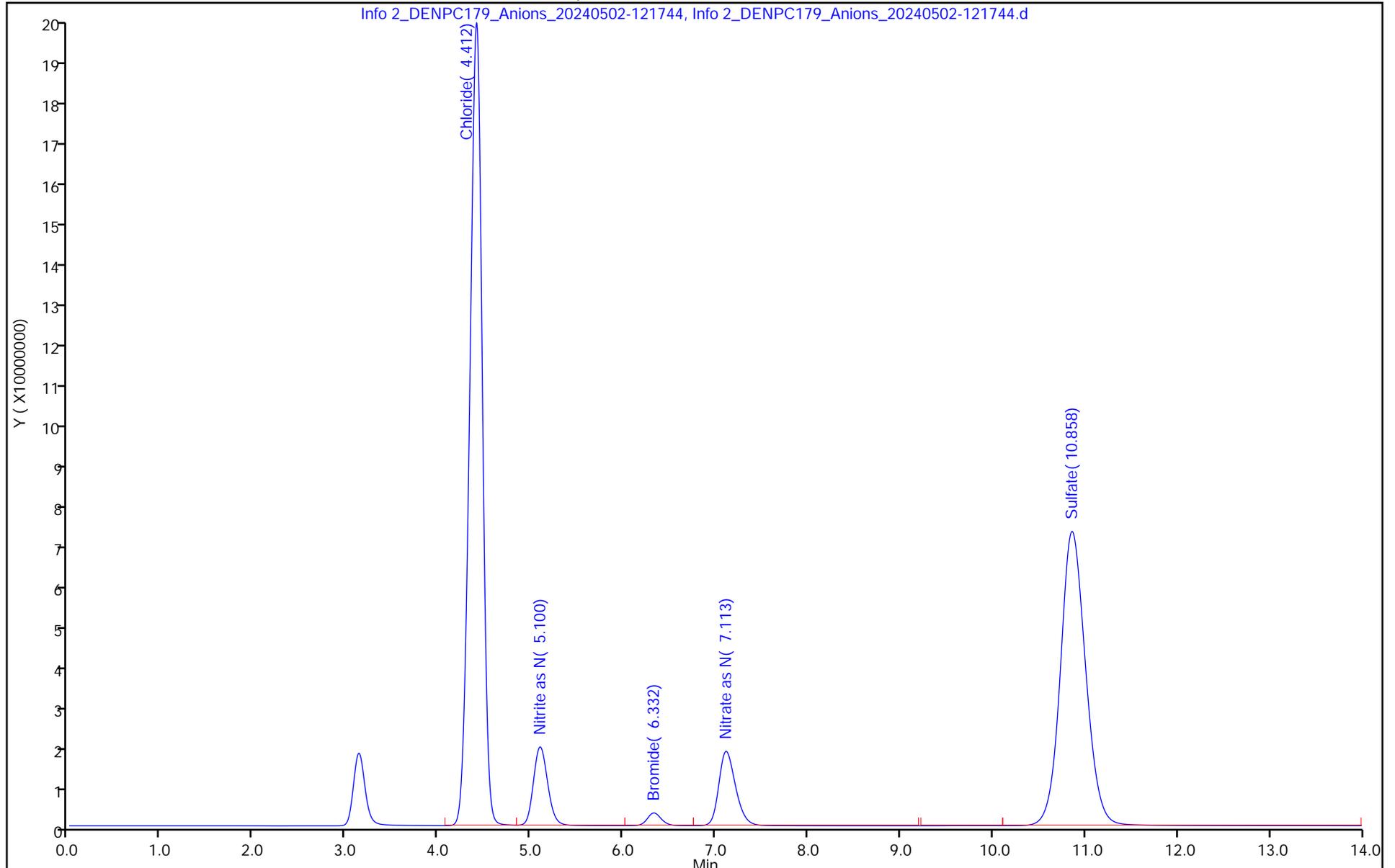
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-12
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-May-2024 12:17:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: CCB
 Misc. Info.: CCB
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:34 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145					ND
2 Chloride	4.338	4.412	-0.074	31491			NC
3 Nitrite as N	4.862	5.100	-0.238	44316		0.0540	
4 Bromide		6.332					ND
5 Nitrate as N		7.113					ND
6 Orthophosphate as P	9.710	9.840	-0.130	1973577		-63.8	
7 Sulfate	10.975	10.858	0.117	1572296			NC

QC Flag Legend
 Processing Flags
 NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-123442.d

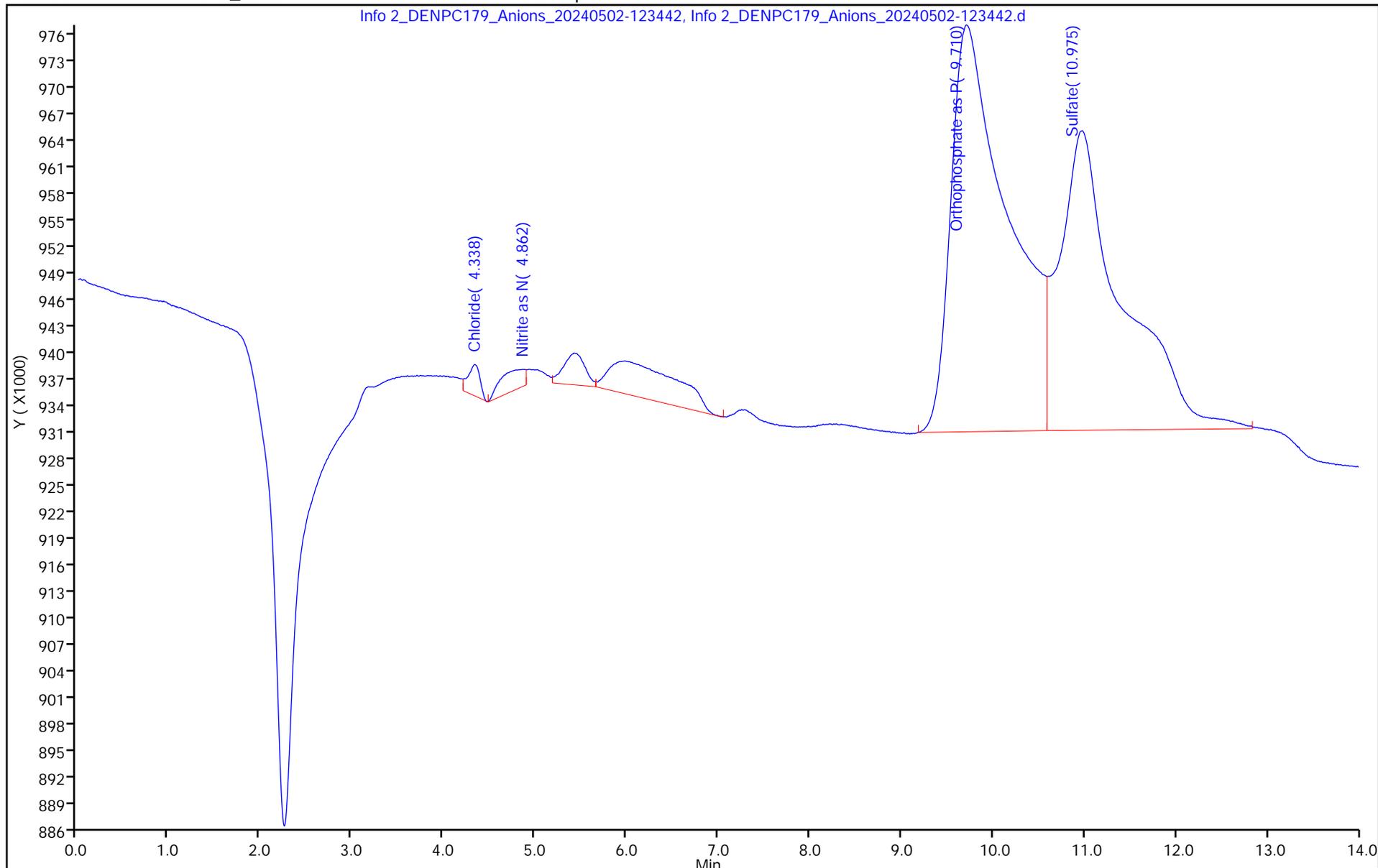
Injection Date: 02-May-2024 12:17:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: ccb Worklist Smp#: 2

Client ID: ALS Bottle#: 0

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-12
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 02-May-2024 12:34:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: MRL
 Misc. Info.: MRL
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:34 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145			ND	ND	
2 Chloride	4.370	4.412	-0.042	88598962	NC	NC	
3 Nitrite as N	5.117	5.100	0.017	17626539	0.5000	0.4613	
4 Bromide	6.382	6.332	0.050	2742646	NC	NC	
5 Nitrate as N	7.208	7.113	0.095	17820125	0.5000	0.4496	
7 Sulfate	10.935	10.858	0.077	63509192	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

IC CAL cl/so4_00534

Amount Added: 0.20

Units: mL

IC Cal low_00772

Amount Added: 0.10

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-125140.d

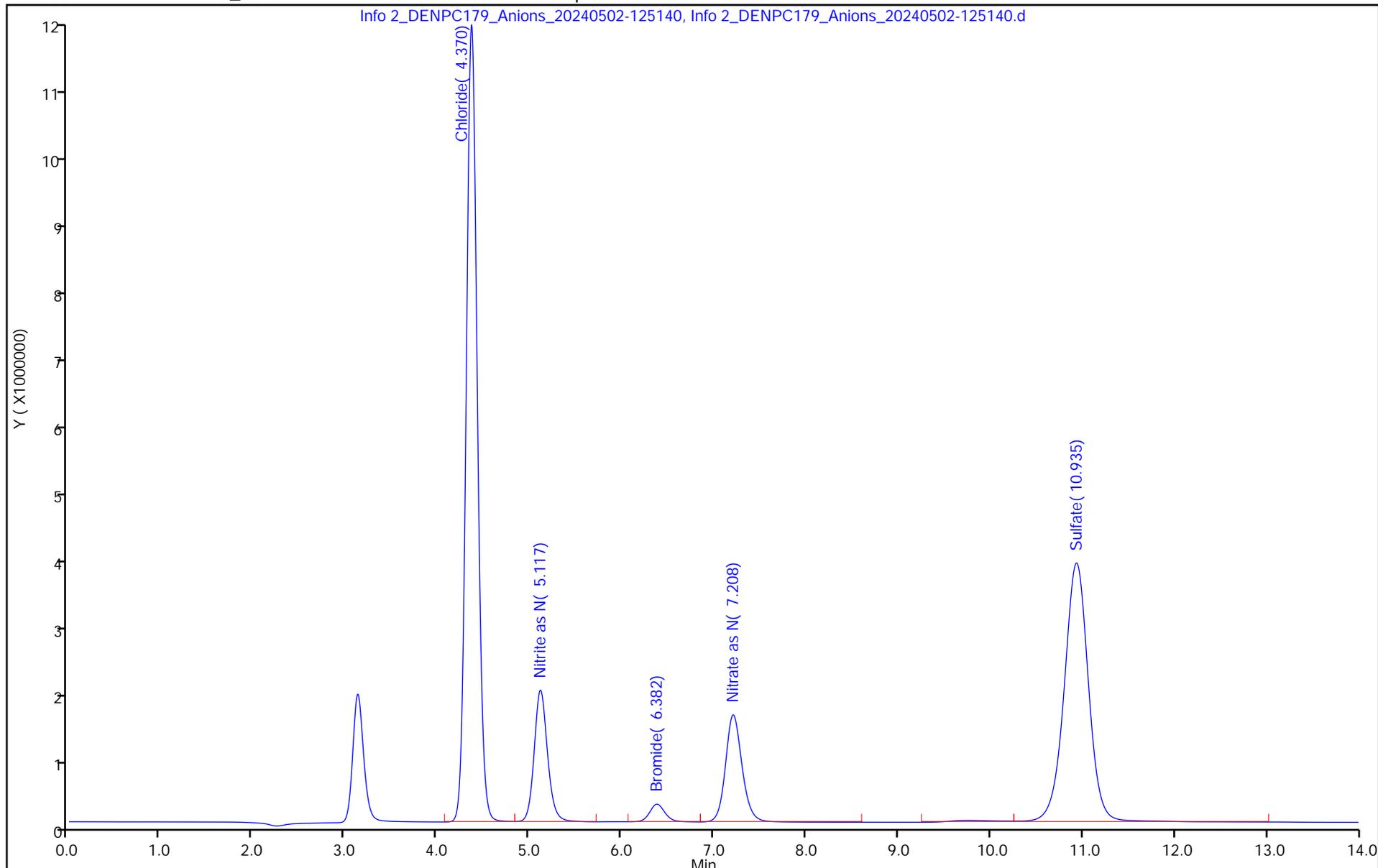
Injection Date: 02-May-2024 12:34:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: MRL Worklist Smp#: 3

Client ID: Dil. Factor: 1.0000 ALS Bottle#: 0

Injection Vol: 5.0 ul Limit Group: Wet - Anions

Method: Anions_IC10



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-132927.b
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-May-2024 12:51:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: LCS
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:51:13 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-131634.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145			ND	ND	
2 Chloride	4.417	4.412	0.005	1898717478	NC	NC	
3 Nitrite as N	5.103	5.100	0.003	212016897	5.00	4.96	
4 Bromide	6.347	6.332	0.015	34229544	NC	NC	
5 Nitrate as N	7.127	7.113	0.014	236315375	5.00	4.95	
7 Sulfate	10.862	10.858	0.004	1418853791	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

IC LCS_02033

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-130847.d

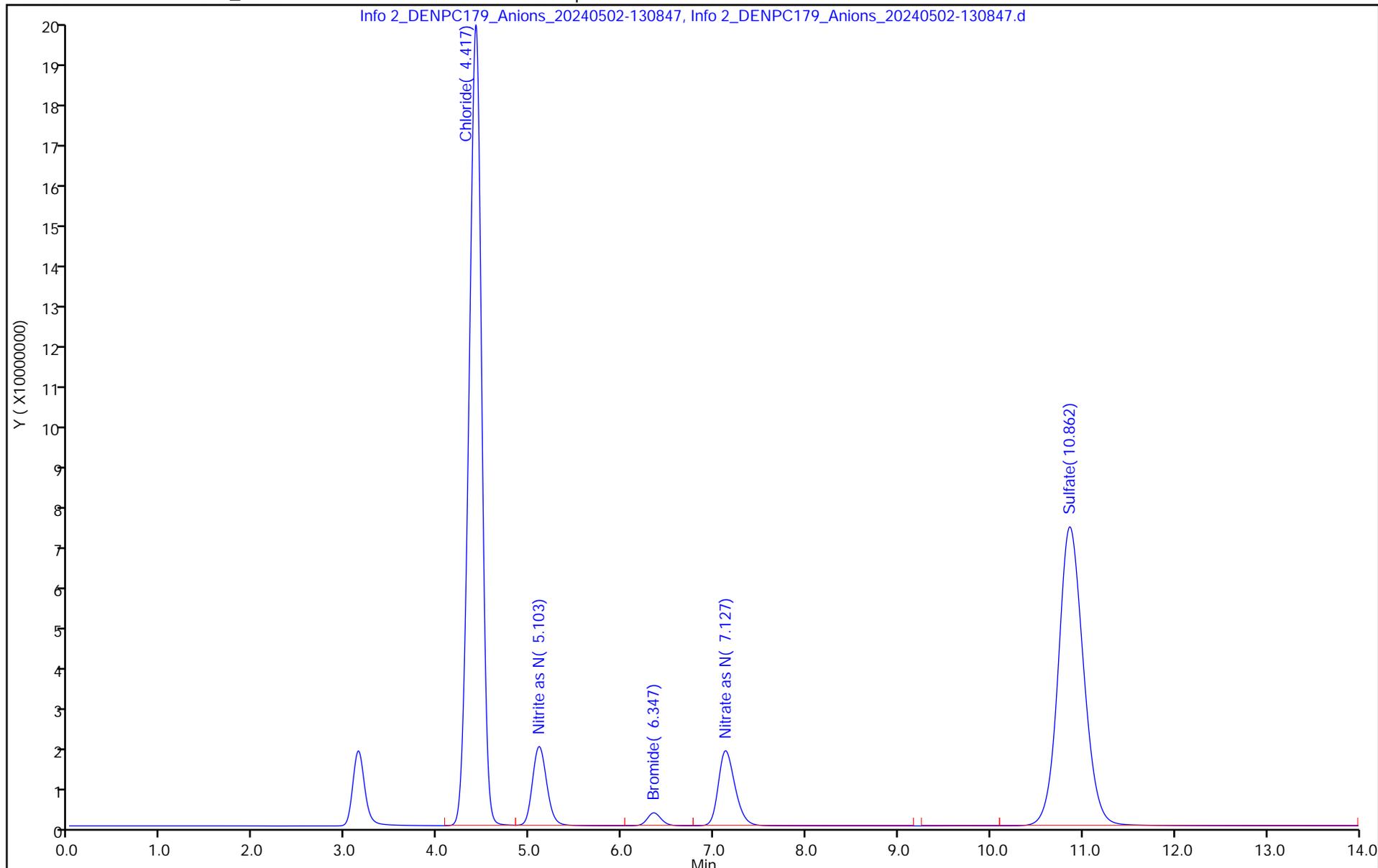
Injection Date: 02-May-2024 12:51:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: LCS Worklist Smp#: 4

Client ID: Dil. Factor: 1.0000 ALS Bottle#: 0

Injection Vol: 5.0 ul Limit Group: Wet - Anions

Method: Anions_IC10



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-132927.b
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 02-May-2024 13:09:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: LCSD
 Misc. Info.: LCSD
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:46:40 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-131634.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

First Level Reviewer: XAY4 Date: 03-May-2024 17:51:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145			ND	ND	
2 Chloride	4.417	4.412	0.005	1900488838	NC	NC	
3 Nitrite as N	5.103	5.100	0.003	210051336	5.00	4.92	
4 Bromide	6.352	6.332	0.020	34285904	NC	NC	
5 Nitrate as N	7.130	7.113	0.017	236465518	5.00	4.96	
7 Sulfate	10.863	10.858	0.005	1429330145	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

IC LCS_02033

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-132646.d

Injection Date: 02-May-2024 13:09:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

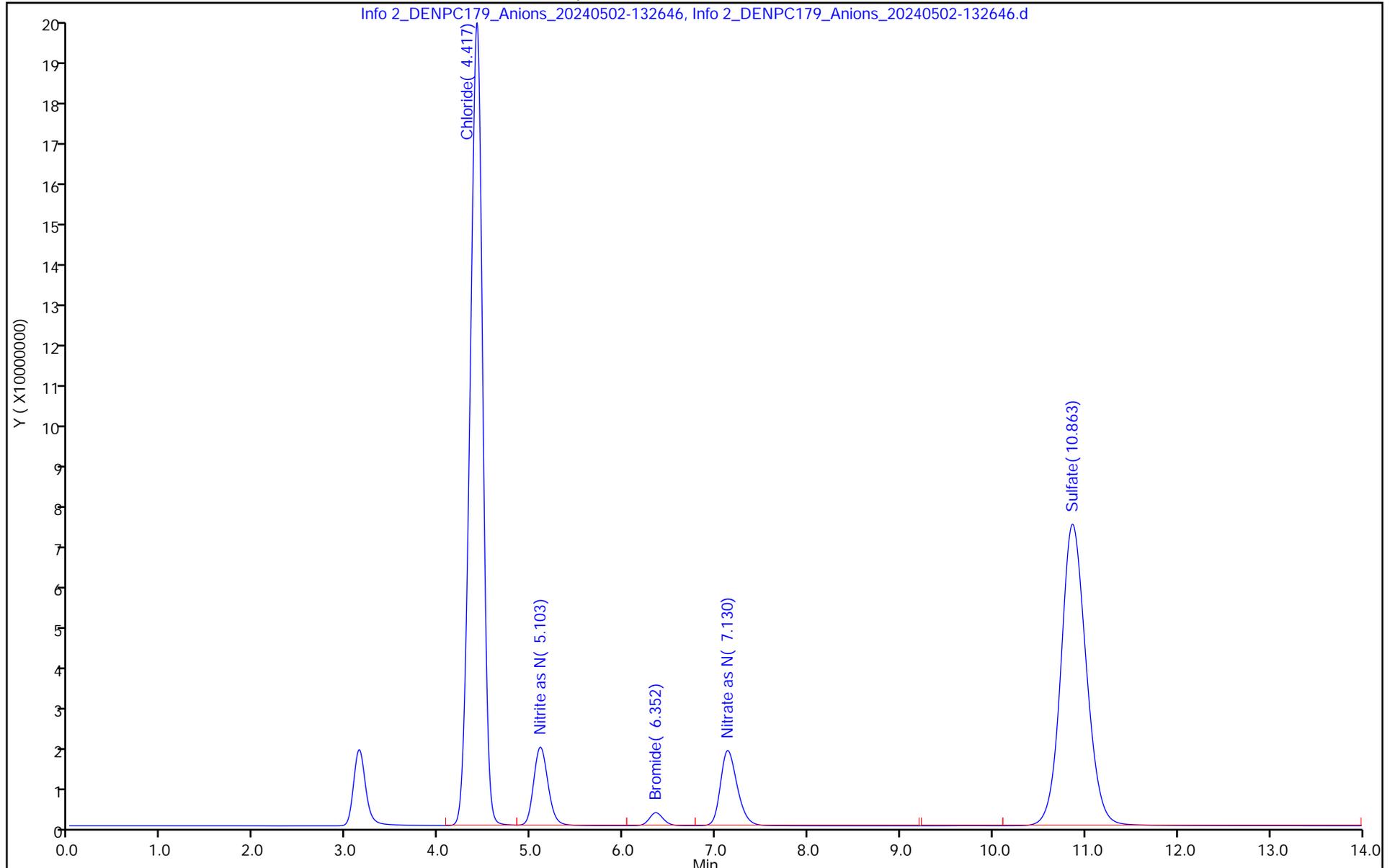
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-132927.b
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 02-May-2024 13:26:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: MB
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:34 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-131634.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145				ND	
2 Chloride	4.338	4.412	-0.074	34433		NC	
3 Nitrite as N		5.100				ND	
4 Bromide		6.332				ND	
5 Nitrate as N		7.113				ND	
6 Orthophosphate as P	9.727	9.840	-0.113	1588603		-48.6	
7 Sulfate	10.998	10.858	0.140	1407663		NC	

QC Flag Legend
 Processing Flags
 NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-134345.d

Injection Date: 02-May-2024 13:26:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: mb

Worklist Smp#: 6

Client ID:

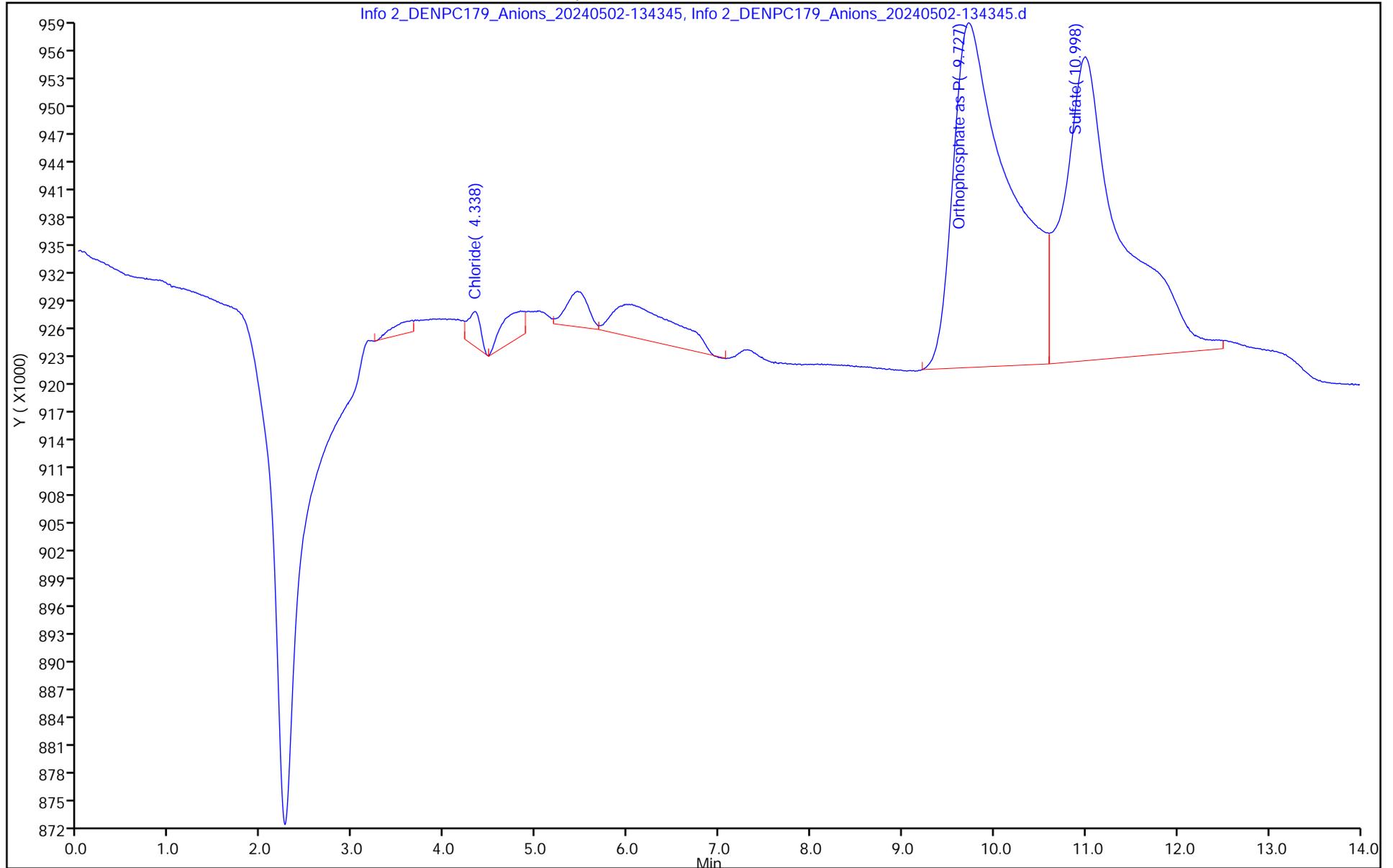
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-19
 Lims ID: 280-190903-B-1
 Client ID: LL12mw-185-240401-GW
 Sample Type: Client
 Inject. Date: 02-May-2024 18:56:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 5.0 ul Dil. Factor: 20.0000
 Sample Info: 280-190903-B-1
 Misc. Info.: 280-190903-B-1
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:00 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.145				ND
2 Chloride	4.390	4.412	-0.022	727652385		NC
3 Nitrite as N	5.102	5.100	0.002	718377	0.0696	
4 Bromide	6.432	6.332	0.100	105539		NC
5 Nitrate as N	7.190	7.113	0.077	133921619	2.84	
6 Orthophosphate as P	9.828	9.840	-0.012	302442	2.17	
7 Sulfate	10.957	10.858	0.099	210595874		NC

QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-191351.d

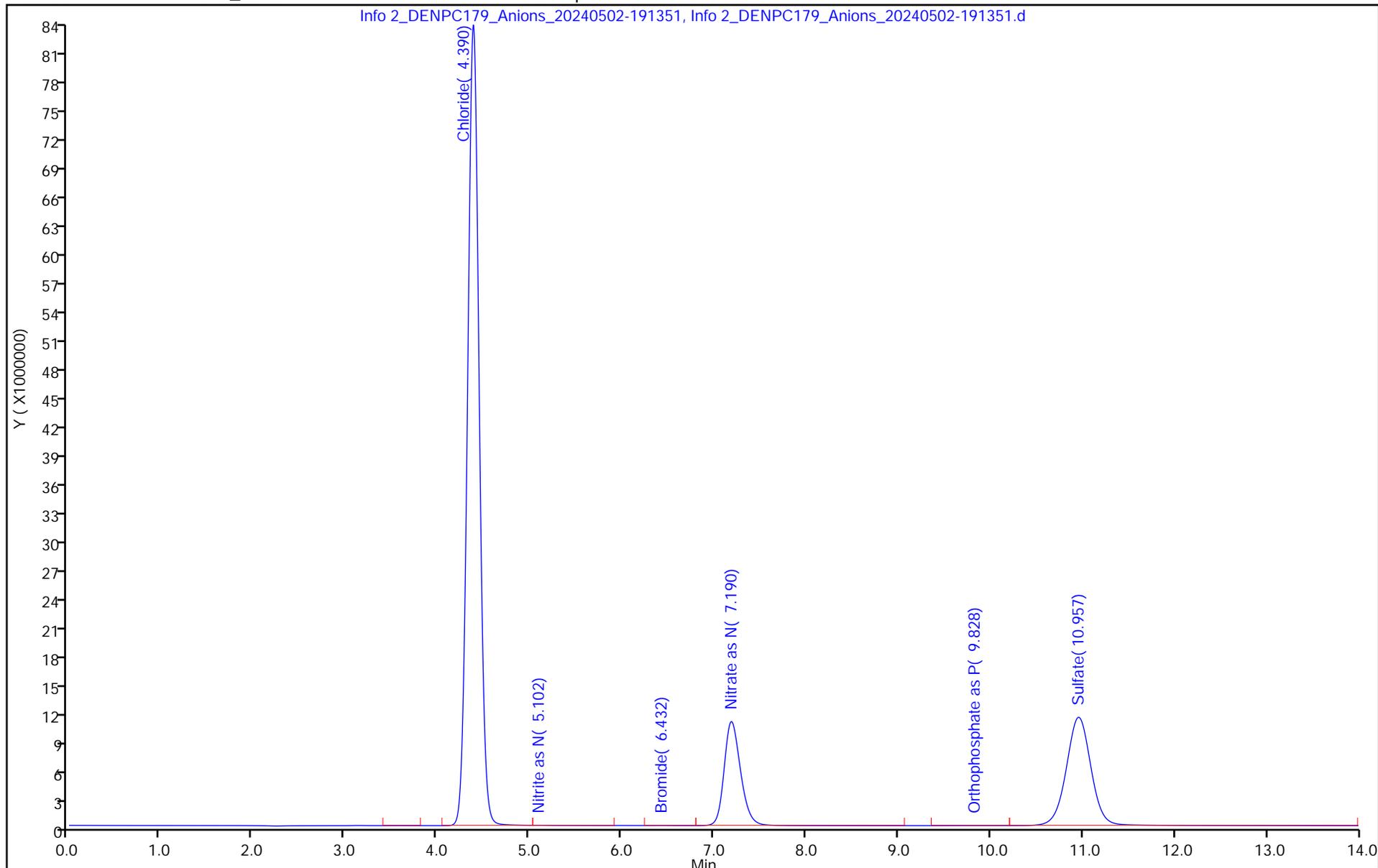
Injection Date: 02-May-2024 18:56:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: 280-190903-B-1 Lab Sample ID: 280-190903-1 Worklist Smp#: 9

Client ID: LL12mw-185-240401-GW

Injection Vol: 5.0 ul Dil. Factor: 20.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-20240502-132927.b
 Lims ID: 280-190903-B-3
 Client ID: LL12mw-245-240401-GW
 Sample Type: Client
 Inject. Date: 02-May-2024 19:47:00 ALS Bottle#: 0 Worklist Smp#: 12
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-190903-B-3
 Misc. Info.: 280-190903-B-3
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:00 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-151634.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.145				ND
2 Chloride	4.490	4.412	0.078	162366733		NC
3 Nitrite as N		5.100				ND
4 Bromide	6.478	6.332	0.146	1071264		NC
5 Nitrate as N	7.340	7.113	0.227	962249	0.1021	
6 Orthophosphate as P	9.850	9.840	0.010	328852	1.12	
7 Sulfate	10.837	10.858	-0.021	3284354015		NC

QC Flag Legend
 Processing Flags
 NC - Not Calibrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-200454.d

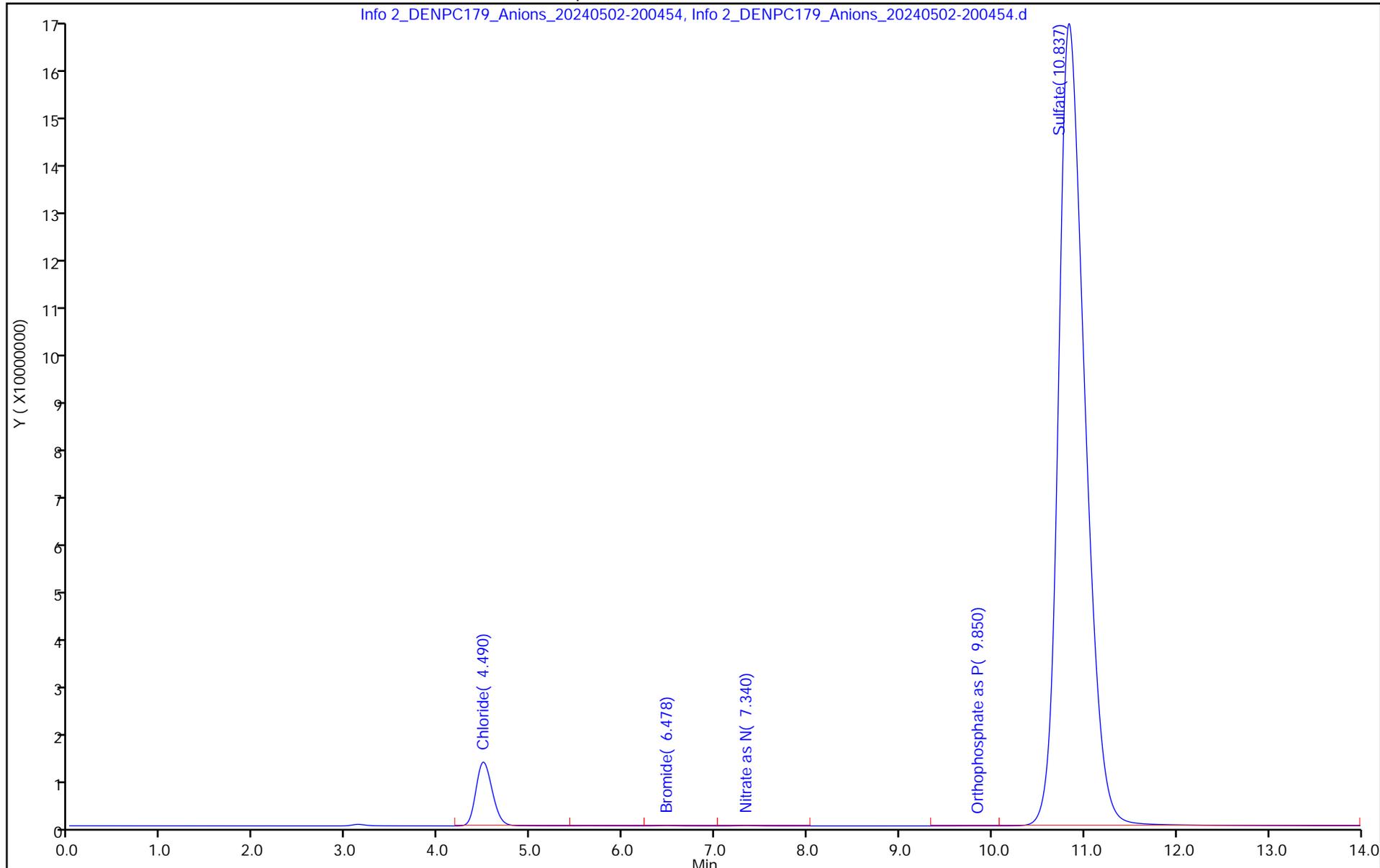
Injection Date: 02-May-2024 19:47:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: 280-190903-B-3 Lab Sample ID: 280-190903-3 Worklist Smp#: 12

Client ID: LL12mw-245-240401-GW

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-22
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-May-2024 22:05:00 ALS Bottle#: 0 Worklist Smp#: 20
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: CCV
 Misc. Info.: CCV
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub11
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:10 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145			ND	ND	
2 Chloride	4.417	4.412	0.005	1911780348	NC	NC	
3 Nitrite as N	5.105	5.100	0.005	212143721	5.00	4.97	
4 Bromide	6.345	6.332	0.013	34617809	NC	NC	
5 Nitrate as N	7.132	7.113	0.019	238420905	5.00	5.00	
7 Sulfate	10.850	10.858	-0.008	1412620019	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

IC LCS_02033

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-222218.d

Injection Date: 02-May-2024 22:05:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 20

Client ID:

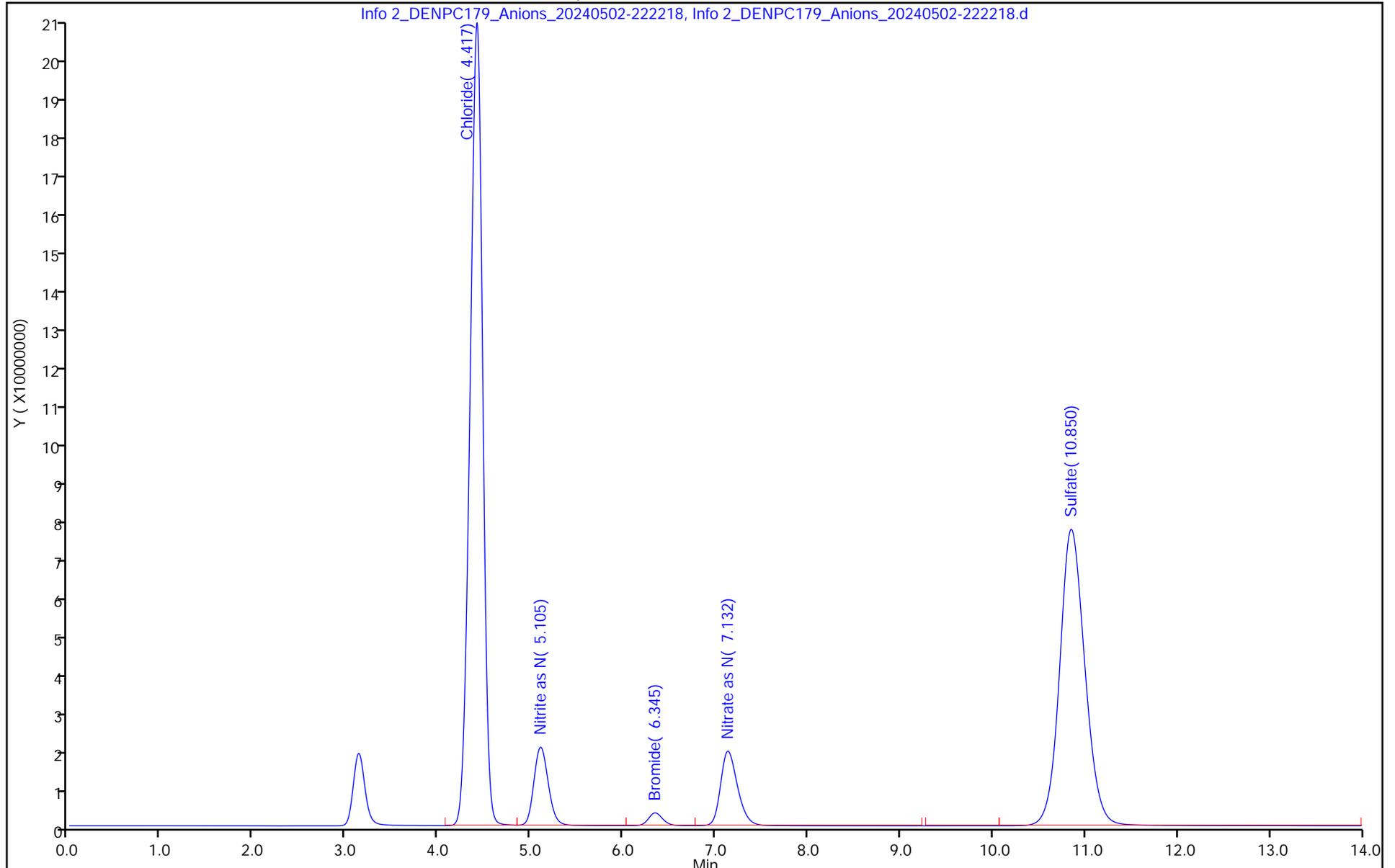
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-22
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-May-2024 22:22:00 ALS Bottle#: 0 Worklist Smp#: 21
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: CCB
 Misc. Info.: CCB
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 03-May-2024 17:37:10 Calib Date: 28-Mar-2024 15:32:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240328-131634.b\Info 2_DENPC179_Anions_20240328-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1677

First Level Reviewer: XAY4

Date: 03-May-2024 17:34:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.145				ND	
2 Chloride	4.372	4.412	-0.040	149247		NC	
3 Nitrite as N	5.030	5.100	-0.070	98902		0.0553	
4 Bromide		6.332				ND	
5 Nitrate as N	7.295	7.113	0.182	53742		0.0834	
6 Orthophosphate as P	9.715	9.840	-0.125	799754		-17.5	
7 Sulfate	10.958	10.858	0.100	682564		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20240502-132927.b\Info 2_DENPC179_Anions_20240502-223940.d

Injection Date: 02-May-2024 22:22:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 21

Client ID:

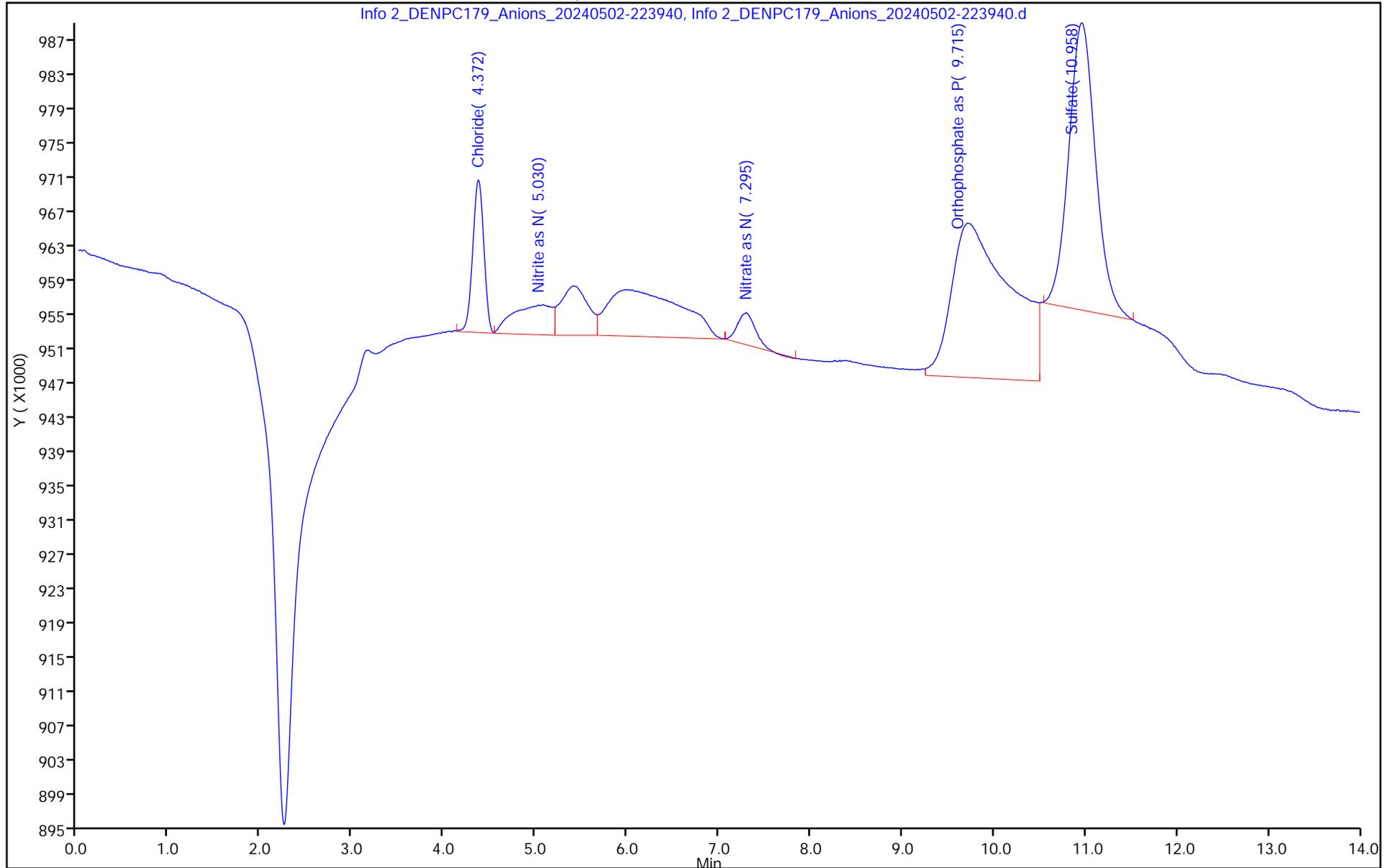
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Shipping and Receiving Documents



Chain of Custody Record

COC No.: RVAAP-427-TA

Date: 5/11/24

Page of 4



280-190903 Chain of Custody

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 2024
Job/P.O. No.: P010216426
Sampler (Signature) *[Signature]* (Printed Name) **Kathie Lee**

Sample ID: LL12mw-185-240401-GW
Site Type: - Depth: - Date: 5/11/24 10:12 W Matrix: W

Requested Parameters	Total Number of Containers	Temperature Blank
Nitrate (10)(A)	1	1
AMMONIA 15(E)	1	1

OBSERVATIONS, COMMENTS
SPECIAL INSTRUCTIONS

Relinquished by: *[Signature]* Date: 5/11/24 Time: 1800
Signature: **Charles Spurr**
Printed Name: **Charles Spurr**

Received by: *[Signature]* Date: 5/22/24 Time: 0910
Signature: *[Signature]*
Printed Name: **PROFEEDEN**

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
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
15. E350.1

Shipment Method: **FedEx**
8108 8165 1510
0.42 Mega CF02

Temperature Blank
Lab: **Leidos**
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager



Chain of Custody Record

COC No.: **RVAAP-428-TA**
Date: **5/11/24**

Page **2** of **4**

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 2024 Job/P.O. No.: P010216426 Sampler (Signature) <i>Matthew Rechenberg</i> (Printed Name) Matthew Rechenberg		Laboratory Name: TA- Denver Address: 4955 Yarrow Street Arvada, CO 80002 Phone: 303-736-0107 Contact: Patrick McEntee	
Requested Parameters	Explosives (6)(A)	Temperature Blank	Total Number of Containers
	2		2
<i>CS 5/11/24</i>			
Relinquished by	Date	Received by	Date
<i>Charles Spurr</i>	5/11/24	<i>Westfeld</i>	5/22/24
Signature	Time	Signature	Time
<i>Charles Spurr</i>	1800	<i>JM</i>	0910
Leidos		Printed Name	
Company		Company	
Relinquished by	Date	Received by	Date
Signature	Time	Signature	Time
Printed Name		Printed Name	
Company		Company	
Notes:		Notes:	
A. Cool, 4C		1. SW 8260B	
B. HCl, pH<2, Cool, 4C		2. SW 8270D	
C. HNO3, pH<2, Cool, 4C		3. SW 8270D SIM	
D. NaOH, pH>12, Cool 4C		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:		Lab:	
Cooler		Temperature Blank	
		Leidos	
		8866 Commons Drive	
		Twinsburg, OH 44087	
		(330) 405-5802	

Leidos White Laboratory Pink Project Manager Yellow Project OAO Goldenrod Field Project Manager



Chain of Custody Record

COC No.: RVAAP-429-TA
Date: 04/30/24 5/1/24

Page 3 of 4

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 2024
Job/P.O. No.: P010216426
Sampler (Signature) *Charles Spurr* (Printed Name) **CHARLES SPURR**

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
	LL12mw-245-240401-GW			5/1/24	1145	W

Requested Parameters

Parameter	Requested	Received	Notes
Nitrate (10)(A)	1	1	
AMMONIA 15 (E)			
Temperature Blank			
Total Number of Containers	2	2	

OBSERVATIONS, COMMENTS
SPECIAL INSTRUCTIONS

Relinquished by: *Charles Spurr* (Signature), **Charles Spurr** (Printed Name), Date: 5/1/24, Time: 1800
 Received by: *Katie Lee* (Signature), **Katie Lee** (Printed Name), Date: 5/2/24, Time: 0910
 Notes: 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
 15. E350.1

Shipment Method: **Special**

Temperature Blank
Lab: Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-190903-1

Login Number: 190903
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	